The making of a global blue economy 'governmentality':

understanding space and power in the Western Indian Ocean

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Abstract

I interrogate the nature of the blue economy, a recent ocean development paradigm, through the lens of environmental governance. I deploy analytical techniques based on the work of Michel Foucault (governmentalities and dispositif) and a complementary spatialised analytical framework. I base my analysis on empirical data collected in the Western Indian Ocean Region, with fieldwork in Kenya and Seychelles. Through this analysis I: 1) note the potential for BE initiatives to lead to territorialisation and enclosure of ocean space, and argue for more recognition of the importance of 'place' in blue economy policy making; 2) analyse the rationality underpinning the blue economy as a sustainable development approach, and how it is enacted in the Western Indian Ocean (WIO) to effect the governmentalisation of a shared ocean space; 3) demonstrate how practices of inscription and subjectification are used to (re)territorialise the oceans as blue economy spaces; and 4) characterise the blue economy as a security dispositif, and call for more attention to be paid to the emergent space-time relations of the dispositif 'in place'. I call for a *blue œconomy*, recalling earlier conceptions of economy than that of today, which privileges place-based co-management of natural resources at community scale in ways that are adaptive, prudent, and equitable. In conclusion, I consider further research priorities and policy-relevant recommendations.

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1. Introduction

1.1 Overview

In this thesis I interrogate the nature of the blue economy, a recent development paradigm. I am principally concerned with governance – how decisions are made, by whom and to what end – and how governance is effected at different scales and through what practices. From that basis, I seek sustainable and socially just directions for BE development.

The Blue Economy arose as a concept during preparations for the Rio+20 conference in 2012. A paradigm shift in thinking regarding sustainable development was underway which threatened little benefit for coastal States, especially small island developing states (SIDS), with regard to emerging global environmental policy. The 'green economy' had been conceived as a response to dwindling interest in sustainable development (launched two decades earlier at the Earth Summit), to create a more politically and economically salient policy concept. SIDs, having small terrestrial, or 'green' territories, but large ocean, or 'blue', territories, successfully argued for an extension of the concept in a way that better met their spatial character. The resultant 'Green Economy in a Blue World' (UNEP et al., 2012) set out the basic tenets of the blue economy, which has since continued to develop and evolve. However, like sustainable development, the terms green and blue economy embrace a broad diversity of concepts and so is open to differing interpretations.

As a new paradigm for ocean management and development the BE remains relatively untested and its long term impacts uncertain. Its ability to shine a light on 'new frontiers' for development, of enrolling nature and communities in the global capitalist economy, and of enclosure and privatisation of the commons, creates an urgent need to understand the implications for the environment and for the communities for whom the BE is positioned as a solution to their

development needs. Further, given the complex, dynamic nature of coast and ocean environments, the blue economy provides an interesting case study for the analysis of place-based policy.

1.1.2 Research question and approach

The overall study addresses the following research question:

Does the Blue Economy paradigm represent a real shift in the discourse and 'regime of practices' of ocean governance?

1. *In what ways does the BE paradigm problematise sustainable development of the oceans?*

2. *What practices are employed in BE operationalisation and by what rationality are they expected to deliver BE aims?*

3. *In what ways and by what means are actors enrolled in these new regimes of practices?*

4. *In what ways do material and spatial power relations explain forms of and sites of resistance in BE governance?*

This reflects a focus on the practices of governance and the material power relations which may shape them. I have taken this approach for two reasons. First, I am interested in how policies are implemented in practice and what their real-world consequences are. Second, I contend that governance must respond to spatio-material factors – different approaches are required for the management of coral reefs compared to ports for example. I argue in favour of place-based, as opposed to place-neutral, policy.

Conceptually, I follow the work of Michel Foucault, whose scholarship on governance has enabled the revealing of valuable insights into how relations of power effect control in multiple ways and from multiple sites. However, I also develop a parallel approach to supplement a 'governmentality'

analysis to enable a more thorough examination of spatial factors and the influence of the

particularities of place on governance, and the emergent consequences of governance.

I focus on the Western Indian Ocean (WIO) region as a case study, including sites in Kenya and

Seychelles. I undertake a discourse analysis of policy documents and of key informant interviews,

informed by field visits and direct observation. Covid heavily impacted my research plan,

necessitating *ad hoc* changes in response to the unfolding restrictions that the COVID-19 pandemic

gave rise to. Fieldwork was finally undertaken after a 15-month delay.

1.1.3 Research contribution

The main contribution to scholarship that I develop in this thesis is that the BE represents a *global*

governmentality, characterised in the WIO region by a collaborative rationality, which I call a

'*collaborative BE governmentality*'. I show how ocean space is territorialised for BE development,

and how material and spatial relations shape this process. I argue that the BE is an *immature*

governmentality, still requiring much work to build capacities for its enactment and being beset with

'counter conducts'. Nevertheless, *counter conducts* represent important processes of community

level engagement in the BE, helping to shape its nature through the development of small-scale,

locally adapted innovations. Developing this theme, I argue for development of a *blue œconomy* – a

blue economy adapted to the particularities of place, its biophysical form, and its community. I

develop these perspective through the use of a novel spatialised governmentality analytical

framework, drawing upon the work of Michel Foucault and later governmentality scholars, and the

philosophy of place.

I make these arguments in four papers, as follows:

In paper one I review published cases of BE *as enacted*, testing and refining a new spatialised governmentality analytical framework. The review demonstrates that BE can have unintended consequences as a result of global economic forces and the privileging of economic growth, such as resource capture and inequality. I question the importance of 'place' and consider the role of spatio-material factors in BE governance.

In paper two I present a new conceptual contribution to advance understandings of ocean governance in the form of an analysis of BE policy in the WIO region, making use of and refining the framework published in paper one. I make the case that BE represents a case of global governmentality. It reflects the particular nature of the ocean as a shared space, and takes a collaborative rationality – a 'collaborative governmentality'. I argue, however, that this governmentality is immature, pointing to the many resources devoted to building capacities and capabilities, and to more direct counter conducts, or resistance, from marginalised groups.

In paper three I analyse a case of collaborative governmentality in more detail, that of maritime security in the WIO region, to reveal the technologies and practices by which people and organisations are subjectified and enrolled in it. I highlight the role of maps, codes of practice, and guidance, in creating what I conceptualise as 'spaces of risk'. I further consider the importance of surveillance and the challenges of securing the oceans as a blue economy space.

In Paper four, in a third conceptual contribution to ocean governance, I consider these technologies, practices, knowledges and institutions in the broader context of the BE 'dispositif', the ensemble of practices and technologies which combine to enable a governmental rationality to emerge. I characterise the BE as a 'security dispositif', concerned with food and livelihood security, and related environmental degradation. I explore the philosophical origins of the dispositif concept and link it to different conceptions of political economy through the ages. Returning to the theme of 'place' I call

for more attention to be paid to the emergent space-time relations of the dispositif 'in place' and, recalling earlier conceptions of economy than that of today, I propose a *blue œconomy* which privileges co-management of natural resources at community scale in ways that are adaptive, prudent, and equitable.

1.1.4 Thesis structure

In the next section I contextualise this work with a brief review of ocean and environmental governance, the blue economy, and the conceptual foundations of my approach. Then, in Chapter 2, I describe the methodology in detail, including an introduction to field work sites and cases analysed. I next introduce, as Chapter 3, the four papers which report my analysis and findings. Finally, in a concluding chapter I consider the insights gained through this research for scholarship, policy and practice.

1.2 Literature review

In the following sections I broadly set the context for the four papers that make up the body of this thesis. Each has its own detailed literature review as an introduction to its content, which I aim not to repeat here – although some overlap is inevitable. I start with an introduction to the nature of environmental governance before briefly reviewing literature on development and the oceans, focusing on a critical perspective and, therefore, foregrounding social and environmental justice. I review the origins of the BE and the body of research it has spawned, and conclude with an overview of my theoretical approach.

1.2.1 Environmental and ocean governance

This research is situated within broader scholarship regarding environmental governance. Davidson and Frickel (2004) review scholarship in this field, defining environmental governance broadly as "attempts by governing bodies or combinations thereof to alleviate recognized environmental dilemmas" (ibid: 471). *Global* environmental governance is considered by Biermann and Pattburg (2008) to be distinguished by three characteristics: first, the emergence of new types of agency and of actors in addition to national governments; second, the emergence of new mechanisms and institutions of global environmental governance that go beyond traditional forms of state-led, treaty-based regimes; and third, increasing segmentation and fragmentation of the overall governance system across levels and functional spheres. Folke et al (2021) remind us that humans need to be viewed as part of the biosphere, not separate from it, given the profound impact society is having on the earth's geology and ecosystems in the age of the Anthropocene. A school of thought suggests that Anthropocene governance should be fundamentally different from Holocene governance, which no longer represents an adequate response to preserve the biosphere which we inhabit and the life-supporting processes upon which we depend. Bornemann (2021) proposes that

environmental governance must be reconsidered instead as Anthropocene governance, representing a holistic and integrated approach.

A global, interdisciplinary research network, the Earth System Governance Framework[1], has been developed to 'advance knowledge at the interface between global environmental change and governance'. In contrast, Ostrom (1990) highlighted the evolution of locally-based systems of environmental governance in which communities of natural resource users collaborate to develop solutions to 'collective action problems' (in which all individuals would benefit from cooperating but fail to do so because of conflicting interests). These typically arise in realtion to common-pool resources - such as fish, oceans, water, air, rangelands - in which access is shared by bounded groups of people (rather than fully open access) and in which risks of over-exploitation are high.

The governance of the oceans has become of increasing interest as new technologies generate new opportunities for economic exploitation, but also as the consequences of global environmental change are becoming better understood[2]. The impacts of climate change and biodiversity loss on the oceans have become prominent concerns, alongside more traditional issues such as pollution, over-fishing, and habitat loss[3]. An urgent transition to sustainable management is called for to prevent irreversible change (Rudolf et al, 2020). Such a shift, the authors propose, should recognise the oceans as a global commons, and draw from three key frameworks: polycentric, or network, governance; voluntary, adaptive governance; and meta-governance. Mahon and Fanning (2019) draw attention to the importance of regional mechanisms of ocean governance. Citing international examples such as the UN Regional Seas programme and Regional Fisheries Management Organisations (RMFOs), they call for more recognition of other regional and sub-regional multi-lateral agreements within sub-regional 'polycentric governance clusters'. Spalding and de Ycaza

[1] https://www.earthsystemgovernance.org/
[2] IPCC Special Report on the Ocean and Cryosphere in a Changing Climate https://www.ipcc.ch/srocc/ and IPBES Global Assessment Report on Biodiversity and Ecosystem Services https://www.ipbes.net/global-assessment
[3] UNESCO State of the Oceans Report 2022 https://www.unesco.org/en/articles/state-ocean-report-2022

(2020) note the evolution of global ocean governance regimes, from the introduction of UNCLOS in 1982 to the UN Sustainable Development Goals of 2015, from top-down to more participatory and representative processes. However, they conclude that poorly designed and coordinated policy instruments remain important governance challenges, and call for a redefinition of ocean narratives as blue economy investment unfolds to foreground equity and inclusivity. For Campling and Colás (2018: 777), the oceans are a space of 'terraqueous territoriality' in which socio-natural power relations effected through capitalism *actively shape* the spaces of the ocean. The inadequacies of the terrestrially derived concept of 'territory' as a unit of ocean management have been pointed out (e.g. Steinberg and Peters, 2015; Campling and Colás, 2018; Peters, 2020), various authors juxtaposing bounded ocean territories (such as Exclusive Economic Zones, or EEZs) to which management is applied with the extensive and fluid marine ecological systems which they intersect, one having little relation to the other. Partelow et al (2020) review a range of environmental governance theories applied to the context of coastal systems. However, there exists comparatively little research regarding the oceans as a governance space subject to a blue economy governmental rationality**.**

1.2.2 Development and the oceans

The literature on Development is extensive. I highlight here a small selection of relevant concepts to make the point that development is a contested notion, that there is not a single pathway to 'developed' status, or indeed agreement on what that status comprises. The western, capitalist development trajectory of recent decades is increasingly being drawn into question, amid calls for varying degrees of economic and social transformation in response to the current climate and biodiversity crises. The time is ripe, therefore, for new thinking on development to inform the unfolding of the BE.

The greater accessibility of ocean resources to exploitation and development, through the introduction of new technologies and new knowledges, poses great risks for the ocean itself and the global environment. UNCLOS[4] enabled new claims to be made on ocean space and resources with the introduction of EEZs and mechanisms for states to claim extended continental shelves (Spalding and de Ycaza, 2020) and this has laid the foundations for a new era of development in the oceans. Jouffray et al. (2020) analyse claims on ocean resources, from food, to materials, to space. Noting the rapid increase in the scale of claims in recent decades that they refer to as the 'blue acceleration', the authors draw attention to the increased risks from the intensification of interactions and conflicts between claims and resultant uses. Such risks are non-linear in nature and rarely accounted for in the context of individual claims. Such is the complexity of ocean environmental and human interactions that future ocean development, they argue, may be constrained by as yet unknown thresholds and emergent systemic risks. Modern claims to ocean resources have been referred to as 'ocean grabbing' (Bennett et al., 2015) as new governance regimes lead to dispossession of coastal and marine resources from marginalised users, leading to calls for 'blue justice' (e.g. Cohen et al., 2019; Bennett et al, 2021). Ocean resources have become the subject of globalised conflicts between conservation and development, witness challenges to governance regimes for tuna in the Western Indian Ocean and deep seabed mineral licencing in areas beyond national jurisdiction (ABNJ), giving rise to non-governmental pressure groups. The Deep Sea Conservation Coalition, for example, comprises over 100 non-governmental organisations opposed to deep seabed mining. In the Western Indian Ocean the IOTC hit the headlines in 2022 when conservation NGOs disagreed with its management decisions for yellowfin tuna[5]. *Sustainable ocean management*, some argue, will protect the value of assets which would otherwise be at risk (WWF, 2021) due to loss of ocean health and ecosystem integrity. In short, as ocean space becomes

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[4] United Nations Convention on the Law of the Sea
[5] WWF Press release (May, 2022). Indian Ocean yellowfin tuna management - a decade of failure
https://wwf.panda.org/wwf_news/?5652966/Indian-Ocean-yellowfin-tuna-management---a-decade-of-failure

a focus for development, so the potential for conflict increases and, in turn, the demands upon governance mechanisms to find sustainable solutions.

Ocean governance is complex and political, and literature on ocean governance is fragmented, embracing many different epistemologies and ontologies, technologies and practices. A fundamental point of contestation is what it means to live well and how differentiated economic practices are valued. Sheppard (2011), by way of example, draws attention to alternative imaginaries and practices, located in and across civil society and political institutions and entailing various spatialities, which he points out exceed the logics and processes driving capitalism and legitimise a multiplicity of developmental trajectories. These include: explicitly anti-capitalist national, regional and local territorial strategies; state agencies pursuing non-capitalist agendas; and alternative social movements. Imaginaries of the global South acknowledge the world's ontological multiplicity, pointing to the relationality, hybridity and pluriverse of socio-ecological entanglements and imaginations (Neilson and Sao Marcos, 2019). Calame (2009), in contrast, reached back in time to call for a return to an earlier form of political economy, an *œconomy*, one in which prudence and responsibility were its guiding principles. Escobar (1984) applied Foucault's ideas to the matter of development, reflecting on how the power and knowledge of western societies was used to extend the Western development model to countries in the global south through various disciplinary and normalizing mechanisms, such as discourses of 'under-development' that repressed alternative development options. Sheppard (2011) sees development as an assemblage of possibilities being struggled over by differently situated (geographically, culturally, economically) groups of actors in, albeit un-equally powered, shifting alliances and rivalries. Critiques of conventional economic development thinking point to the hegemony of the "grand narrative of modernity and the colonial power that established Europe as the centre of World History and condemned Nature to be merely resources whose sole purpose is to serve the dominant economic system" (Neilson and Sao Marcos, 2019: 30).

'Transformations', in governance regimes, economies, and society in generally are increasingly called for in response to climate and biodiversity crises. Linnér and Wibeck (2020) distinguish between four general modes of transformations: quantum leap, convergent, emergent, and gradual approaches. Evans et al (2023) propose a 'taxonomy of transformation' for ocean governance. Blythe et al (2021) contend that ocean governance transformations are essentially political, their nature and outcomes being influenced by differential power relations amongst the multiple actors. They call for a better understanding of the processes by which transformations occur. Others call for more critical discussions of ways of knowing and understanding the world that drives ocean governance, without which new tools and technologies will be unable to meet their transformative potential (e.g. Peters, 2020).

Increasingly in global environmental governance, States and their institutions for international collaboration (UN etc.) are being joined by non-state actors in hybrid governance arrangements. For the Blue Economy this may have benefits: shared knowledges and practices; better coordination; common financing mechanisms. However, it may also close down alternative futures (Cavanagh & Benjaminsen, 2017) and limit the diversity of responses to global environmental, economic and social change, inviting comparison with the many critiques of the 'green economy' (eg Fairhead et al., 2012). The hybrid nature of global environmental governance and the neoliberalisation of environmental governance are linked – many non-state actors being primary agents of the neoliberal(isation) discourse (e.g. Weiss et al., 2017). The reach of non-state actors, through globalisation of social movements such as environmentalism and market-based governance (e.g. Vandergeest and Unno, 2012), has weakened the imagined hierarchy which placed the State in encompassing protective and repressive positions 'above' society. State claims of encompassment are now met and countered by globally networked and globally imaged organizations and movements (Ferguson and Gupta, 2002).

1.2.3 The Blue Economy

The advent of the Rio+20 conference in 2012 stimulated a rapid convergence of interests around the concept of the Blue Economy (BE). This linking of ocean governance and economic development arose from a growing concern regarding the status of the ocean's resources and their management and the search for a suitable conceptual framing as the basis for a new push for sustainable ocean policy (Silver et al., 2015) at a time of rapid international policy development (Sustainable Development Goals, small-scale and rights-based fisheries policies, and various high seas enclosures for conservation, seabed mining, etc). Voyer et al. (2018) trace the origins of BE to the Bruntland Report (1987) as a manifestation of sustainable development thinking in which the environment is exploited for societal needs but protected at the same time. Similar to the 'green economy' it emphasises market-based instruments to address environmental threats (Arsel & Büscher, 2012; Castree, 2010a, b; Corson, MacDonald, & Neimark, 2013). Like the green economy, the BE paradigm presents the ocean through competing discourses – as a space for wealth creation to address continuing world poverty and inequality, and as a threatened and vulnerable ecosystem in need of protection from the impacts of global environmental change. BE conceptions have reframed the oceans in the manner of a land-based resource assemblage[6], rather than an inhospitable realm to be explored and feared. As such it can be managed and developed, allocated as property, opened to markets, and governed (Winder and Le Heron, 2017).

Target 14.7 of the U.N. Sustainable Development Goals focuses on enhancing the economic benefits to small island developing states (SIDS) and coastal least developed countries (LDCs) of the sustainable use of marine resources. International organisations are promoting a blue economy paradigm as the solution (World Bank, 2017). The blue economy concept seeks to promote economic growth, social inclusion, and preservation or improvement of livelihoods while at the same

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[6] An assemblage comprises a collective of heterogeneous elements (stakeholders, technologies, materialities, etc), stabilised for a time through diverse relations (Anderson and McFarlane, 2011).

time ensuring environmental sustainability, "….decoupling… socio-economic development ….. from environmental and ecosystems degradation" (World Bank, 2017). This vision reflects a common dualist framing of the oceans – as areas of opportunity, growth and development, as well as threatened and vulnerable spaces in need of protection. This duality is evident in multiple ontologies of the blue economy (Voyer et al., 2018; Silver et al, 2015; Winder and Le Heron 2017). These multiplicities reflect real potential for contested relations, conflicting policies and disappointing outcomes. More clarity regarding the conflicting positions embodied within the blue economy could avoid foreclosing and instead enable alternative, sustainable futures.

The first 'high level' Sustainable Blue Economy conference (Nov. 2018[7]) attracted 10,000 delegates and represents a significant moment in the promotion of the blue economy concept as the principle tool to implement SDG 14[8]. It stresses a new model, a turn away from the 'take-make-dispose' economy[9] characteristic of the past. But can it deliver? It is a grand experiment, implemented on a global scale. Issues of particular concern, reading across from experiences of the green economy (e.g. Fairhead et al 2012; Brown et al, 2014, Barbesgaard, 2018; Bennett et al. 2021; various NGO critiques[10]), are:

- the potential for resource grabs and disenfranchisement of traditional resource users
- the internationalisation, economic globalisation, and marketisation that represent the neoliberal green/blue economy creates new power relations that subvert historic practice and create strong policy drivers and development pressures that States often do not have capacity to resist

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[7] https://www.oceanactionhub.org/africa-reflections-closing-sustainable-blue-economy-conference
[8] Sustainable Development Goals focuses on enhancing the economic benefits to small island developing states (SIDS) and coastal least developed countries (LDCs) from the sustainable use of marine resources, including through the sustainable management of fisheries, aquaculture, and tourism. SDG14 is 'Life below water'.
[9] Report on the Global Sustainable Blue Economy Conference. 26th – 28th November 2018, Nairobi, Kenya
[10] http://rio20.net/wp-content/uploads/2012/06/Theses-on-Green-Econ.pdf; https://www.greeneconomycoalition.org/news-analysis/9-theses-criticizing-green-economy; https://redd-monitor.org/2016/07/07/green-grabs-are-not-the-solution-to-land-grabs/

- this new economic paradigm masks a singular capitalist approach couched in potentially wishful thinking that is more attuned to the needs of the global north than the global south.

Thus, the BE presents risks as well as opportunities (Bennett et al., 2021), and demands new approaches to ensure that a business-as-usual approach does not prevail, which would only extend existing inequalities (eg Evans et al, 2023).

Research directions

The BE has quickly become an object of research interest due to its inherent tensions and contested nature and is already the subject of an emerging body of diverse scholarship (e.g. *Categorisations*: Eikeset et al 2018; Voyer, et al 2018a; Winder and Le Heron, 2017; Kathijotes, 2013; Voyer et al 2022. *Regional examples*: Patil et al 2016, 2018; Choi, 2017; Satizábal et al, 2020; Fabinyi et al 2021. *Potentials*: Potgeiter, 2018; Pauly, 2018; Sakhuja, 2015: *Social justice*: Bennett, 2018; *International policy*: Mallin and Barbesgaard, 2020; Kedia and Gautam, 2020; Germond-Duret, 2022; Saddington 2023; *Security*: Voyer et al., 2018b). Voyer et al (2018a) for example highlighted the growing trend towards commodification and valuation of nature, the designation and delimitation of spatial boundaries, and increasing securitization of the world's oceans as matters of urgent concern. Winder and Le Heron (2017) assert that enrolling the coast and seas into new economic possibilities changes the places, scales and dynamics by which natural resources enter into economic systems and demands attention from the academy: "At present, there are almost no stories circulating about choices being made, how they are being dealt with, the nature of commitments being made, or what trajectories or consequences from choices are beginning to look like." (Winder and Le Heron 2017, p16). A recent special issue on blue economy from a political ecology perspective raised important concerns regarding social and environmental justice (Ertor and Hadjimichael, 2020), and indeed 'blue justice' is an emerging concept (see Isaacs, 2019; Cohen, et al., 2019; Bennett et al., 2021).

Numerous authors call attention to gaps in research and suggest priorities. For Garland et al. (2019) research to date has failed to integrate key geographical concepts such as space and place, proximity and distance, scale and connection, and relational thinking within conceptualisations of the BE. They highlight three key gaps in current framing, understanding, and application of BE concepts: (1) understanding and challenging current power structures this being essential for initiating a transition capable of achieving social justice; (2) the importance of Regions and the need for understanding differences of what the BE is in any given regional context and therefore how it can be achieved; (3) the role of scale in the BE discourse. Bear (2017) proposes a focus on three key areas in the development of assemblage approaches to oceans and the blue economy: the ontological separation of land and sea and the conceptualization of 'marine space'; the 'liveliness' of oceans; and practical possibilities for BE policies to draw on and engage with 'wet ontologies' (Steinberg and Peters, 2015), which stress the materiality of water, and the geophysical and volumetric qualities of oceans. Otherwise, more-than-human perspectives of the BE are underdeveloped. Choi (2017: 39) conceptualises the Blue Economy as a complex governmental project, as a 'governmentality' that opens up "new governable spaces and rationalizes particular ways of governing". Choi urges geographers to maintain a critical eye on questions of knowledge, space, and power and to pay attention to the actual processes through which the Blue Economy is practiced, not simply as an economic project but as a specific mechanism of government in a particular geographic context.

Many articles claim a connection with blue economy – it has become something of a 'buzzword'. Of the great many articles to which I could have made reference in this brief review, I have featured those that have made a direct contribution to critical scholarship on BE governance. Scholarship on BE as assemblage has been influential in my thinking, as have the collected political ecology analyses that feature in a journal special issue from 2020 and reveal much about the BE in practice. Steinberg and Peter's works (e.g. 2015) on wet ontologies valuably highlights material relations as a factor in understanding human/oceans relations. However, for inspiration regarding *how* to approach my

research, I turn first to Michel Foucault, answering the call of Choi (2017) to consider the enactment of the BE as a practical governmental project.

1.2.4 Theoretical approach

In this thesis I use two analytical lenses: the concept of 'governmentality' (a rationality through which governance is applied), and theory of place (both of which are introduced in the next section). In doing so, I aim to generate new insights into emerging practices of BE governance and how these are mediated by the unique spatial and material relations of the oceans. These are different to those on land, generating new governance challenges: the sea is fluid, dynamic and indifferent to socially constructed boundaries such as EEZs (State's Exclusive Economic Zones); natural resources are distributed variably in time and space and are resistant to human control; the sea is vast and empty of people and so difficult to measure, to surveil and, therefore, to govern.

Governance, processes through which competing social demands can be reconciled, is constitutive of differential power relations at a range of scales. The balance of power determines which interests are given primacy over others. The BE framing implies a certain balance of power relations between society and its diverse subsets, the environment and future generations. 'Governmentality' is a concept used to investigate power relations and so provide insights into how governance operates through the deployment of knowledge, discourse and power. Power is not only a social phenomenon. Non-human entities exert power through their materiality. Space, in the form of scale and the particular material qualities of place, also mediates power relations and thus influences how governance is manifested in materially and ecologically different places (see Rutherford, 2007).

A mix of instruments are being promoted for implementation of the BE - policy instruments, market-led Standards, innovative financial instruments - combining to create a complex, heterogeneous and diffuse governance assemblage, or 'dispositif', with potentially conflicting power relations. This research aims to understand, through a selection of comparative and complementary case studies, how the BE is problematised in international and regional discourse, what regimes and technologies

of government are being deployed and how, and to explain in what ways material and spatial power relations mediate forms of and sites of resistance in BE governance.

Governmentalities

In this section I explore in more detail the concept of governmentalities as an epistemological framework for BE research, alongside theories of place and development in an attempt to lay the foundation for a more spatialised perspective on the BE. This addresses the observation that scholarship on spatialised environmental governmentalities in general is under-developed (Ettlinger, 2011). For the oceans it is in its infancy (see Choi, 2017; Bresnihan, 2018; Fish, 2022; Flannery and McAteer, 2020). Foucault (1991, 2008) introduced the idea of *governmentality*: the process of governance as distinct from the institution of Government. Foucault's major contribution was to recognise that modern rule was exercised through the deployment of tactics and the construction of knowledge rather than the imposition of law. Thus, governing is enacted through the construction of certain truths and their circulation via normalizing and disciplining discourses and practices that enrol society in the act of governing (Foucault, 1990). Governmentality has been widely applied, and more recent critiques focus more on research practice than fundamentals (e.g. McKee, 2009; Rutherford, 2007). Earlier critiques questioned the inconsistencies and contradictions in Foucault's approach, as his ideas were often poorly elaborated and evolved over time (see Lemke, 2019). Lemke robustly defends Foucault, however, citing misunderstandings and mis-readings of his work and ascribing this at least in part to the inaccessibility of much of his work (unpublished lectures and interviews) in the early years following his death. Lemke contends that 'government' is the thread that connects Foucault's thinking in its various phases. Government for Foucault is a particular way of exercising power "which does not function by oppression, constraint or ideological distortion so much as the production of truth" (Lemke, 2019: 22). Later authors (e.g. Dean, 2010a) have done much to bring order and clarity to Foucault's œuvre, to the extent of extending its analytical application well beyond Foucault's own empirical interests (sexuality, security etc).

Dean (2010a) stresses the value of Foucault's work as an analytic of power, a methodological tool rather than a social theory. In the context of environmental governance, the governmentality perspective gets to the heart of power. As Rutherford (2007, p295) puts it, "ways in which the environment is constructed as in crisis, how knowledge about it is formed, and who then is authorized to save it become important for understanding the ways that the truth about the environment is made, and how that truth is governed". Studies of modern government through the lens of governmentality have revealed that governance as a manifestation of power takes place in multiple sites, through different discourses, and often outside the traditional boundaries of the state (Allen, 2004; Murdoch, 2006; Rutherford, 2007; Ettlinger 2011). Ocean governance exemplifies these characteristics and hence the study of ocean governmentalities could be a fruitful approach to furthering scholarship and practice on ocean and BE governance. In a broader environmental context governmentalities research has been fruitful in describing observed phenomena. Agrawal (2005) described the 'making of environmental subjects' in his analysis of Forest Councils in India. Fletcher (2010, 2017) described multiple 'environmentalities' in nature conservation management, and Rutherford (2007) a 'green governmentality', to cite just a few examples.

Spatiality, governance and place

In the introduction I question whether place matters in relation to how governmentality is manifested in the BE paradigm. Whilst governmentality is recognised as having spatial dimensions (Murdoch, 2006), these have been related more to degrees of separation (centre and periphery, governing at a distance) than to the governance of place. Indeed, it is hard to find reference to place in the governmentality literature (but see Balke et al, 2018 and Lee and Herborn, 2003 which both concern urban infrastructures). How governmentality is translated into action, and does 'place' matter is a particularly timely question as the oceans are being rapidly spatialised through the

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implementation of marine spatial planning (Boucquey et al., 2019) and through the creation of large zones in the open oceans for nature conservation or extractive activities.

To answer this question suggests an exploration of understandings of space, place and the related matter of time. The concept of space-times is common to mathematics, physics and geography and has its roots in Greek philosophy (Casey, 1997; Malpas, 2012). Whilst each discipline has its own analytical and descriptive approaches they share fundamental concepts and principles. In geography space can be considered as an open and extended condition which is defined by the ordering of things in relation to each other (Massey 2005). Time is an ongoing sequence of events out of which things come into being. Thus, a space-time is an ordering of things following emergent trajectories, and is therefore contingent of historical events and spatial relations. Massey (2005) stressed the existence of a multiplicity of space-times for this reason. Drawing on Escobar's (1984) critique of the hegemonic western development perspective (of 'developed' countries being 'ahead', and 'undeveloped' countries being 'behind') she used space-time theory to argue for more acknowledgement of alternative development futures. Cresswell (2009) describes place as a meaningful site that combines the concepts of location (an exact point), locale (the material setting), and sense of place (the meanings associated with a place). A location becomes a 'place' when it acquires meaning for individuals or communities of people. Cresswell makes the point that places are also *practiced*. People enact their lives in places, which contributes to the meanings associated with places. *Experience* is central, therefore, to the construction on place. Heidegger (1993), echoing Aristotle's contention that place was fundamental to existence (everything that exists must be some*where)*, considered how it is to be in the world. Like Aristotle, to be in the world was to be somewhere, but this was more to Heidegger than being simply at a location. It was a form of existing in, or 'dwelling', in the world and, therefore, of making the world meaningful. This meaning arises from how we organise our existence and how that organising is shaped by the world around us. Place arises, Heidegger argues, from that relationship. Harvey (1993) broadly agrees that place is a

social construct, but contends that as such it is a product of social, and more particularly power relations. Place can become a site of normative rules that reinforce inclusion or exclusion and reproduce inequality. Harvey sees place as a product of spatialisation processes driven by capitalism on the one hand, and the sense of place, the imaginaries and representations, of its citizens on the other. It is both material and social, and being social is also political giving rise to a 'cultural politics' of place which can be divisive (us and them) as well as unifying. Massey (1993) in contrast, highlights the multiplicity of place, that a locale can hold multiple identities, each arising from a different set of social relations – a 'constellation' of relations - articulated together at a particular locus. This latter point reflects debates regarding space-time compressions and the globalization of capital, mobility, trade, culture etc., and the resultant effects on economy, society and environment. Processes of globalisation and technological advances have had the effect of making the world smaller – reducing the time and cost of getting from one locale to another – leading to more rapid material and social change, and to environmental degradation as natural resources are increasingly commodified (see Harvey, 1989; Massey, 1991; Dodgshon, 1998; Kirch, 1995) and in which place becomes a point of convergence of social relations, a boundless 'moment' in ever-shifting networks of social relations (Massey, 1993). Lefebvre (1991), like Harvey, considered the space-place relationship from a Marxist perspective, invoking a relational *trialectic* in which he describes spaces as: first, the domain of hegemonic flows of capital, commodities, information etc ('conceived space'); second, place as the space of lived experience ('representational space') wherein these flows settle for a moment at a particular loci in time and place. Place is shaped by these flows, but in turn place shapes them through social and class struggle (Merrifield, 1993). Third, the nature of place is historically and culturally contingent, place being populated with powerful symbols, such as churches, monuments etc that appropriate the 'spatial practices' which comprise everyday life. Merrifield (1993) argues that space and place, rather than being a Cartesian dualism, are two facets of a unity, representing different moments of a contradictory and conflictual process. Understanding how these facets are articulated and mediated is vital to the development of a progressive politics of place. Ingold (2000,

2008), like Massey, sees place as a site of interconnection – not of globalised flows of commodities however, but of lived experience. He sees lives lived as 'wayfaring', each individual following unique pathways which collectively shape place as they intersect. Further, building on Heidegger's concept of dwelling, Ingold argues that place is continually under construction, or becoming, as a result of inhabitants lived experiences.

Malpas (2012) sought to bring place more fully into consideration within geography, echoing Rutherford's (2007) emphasis on place as a site of governance. Malpas sees place, rather than an open and extended condition, as a bounded space-time. Malpas considers space, place and time as inextricably linked, through the concepts of boundedness, openness and emergence. Reviewing the origins of the concepts of space, place and time he argues that a shift has occurred in geographical theory to the idea of space being an infinite extension and that boundaries are incidental (Massey, 2005) or non-existent (Thrift, 2006). Malpas makes the case instead that boundedness is fundamental to relational geography. In a philosophical sense boundedness presupposes difference, and difference presupposes relationality. Thus, space and time are subservient to place. The exploration of place-space-time relationships has broad relevance to world issues. A more critically engaged geography, argues Malpas, must also be a geography "that is more attentive to the underlying character of space as it stands in relation to place and time - that is more attentive to the phenomena of boundedness, openness, and emergence…." (Malpas, 2012, p240) and so able to engage critically with contemporary forms of social and political organization.

1.2.5 Summary

In the Western Indian Ocean, the case study area for my research, the blue economy is an important theme for the diverse international bodies, the regional States, the non-state actors active in the region, and for many communities living coastal and ocean livelihoods. How will the BE secure

futures for today's and the forthcoming generations? It is an area of high biodiversity, of important food resources, both internationally and locally, yet a region in which human development needs are far from being met and in which governance over a shared ocean space is highly fragmented.

Despite a certain neglect of space-times in the geographical literature in recent years it would seem that revisiting theories of space-times, spatiality and relationality in the context of place may provide alternative modes of thinking about natural resource management that better address the inherent system complexity and immanent power relations that are so central to our attempts (for example by means of the SDGs, Paris Climate Agreement, Convention on Biological Diversity etc) to advance global social, economic and environmental wellbeing.

2. Methods

2.1 Introduction

Dean (1999) applied Foucault's thinking to develop an analytics of government, proposing (in its simplest form) a three point framework. That is, to understand how the need for government is problematised (or framed) and the favoured solution rationalized, what utopias or visions are consequently used to garner support from the population of subjects, and what regimes of practices are deployed to operationalise this rationality of government (Russell and Frame, 2013). Thus, a Foucaultian *analytics of government* aims to identify its constituent elements and relations and how they are assembled and stabilised as organisational and institutional practice. It considers the knowledges on which the regime is based or which legitimise it, and how these knowledges might be challenged. It examines the technologies and mechanisms through which practices operate, achieve their goals, and effect governance.

This framework was combined in this study with a place-space-time framework based on Malpas (2012) to provide a spatialised governmentality analysis of the WIO blue economy discourse and practice. Malpas (2012) considers place, space, and time as inextricably linked, through the concepts of *boundedness, openness* and *emergence*. In a philosophical sense boundedness presupposes difference, and difference presupposes relationality. Boundedness can be thought of as the possibility of orientation and location, or establishing a 'here' and a 'there' and so differentiating place. This rests on the characteristic of space being extension, or *openness*. Extension is 'a making room for' but also 'an enclosing around'. Thus, space is open but also bounded. Being open creates 'space' for appearance, for coming into being, or *emergence*. This emergence Malpas claims is the origin of time, reflected in movement, becoming, events, etc. We can equate boundedness broadly with place, openness with space and emergence with time, although this is to overly simplify their inextricable relationships and interdependencies. This ontology enables us to analyse the

constellations of social and material relations (the topologies and topographies of space of Deleuze, Massey etc. See Murdoch, 2006) that result from governance of ocean space. In particular this analytic enables insights into the very character of place (its boundedness), its potentialities or risks in response to governance (openness, or open space), and what are the outcomes (emergence) of practices of governance.

2.2 Research question

The overall study addressed the following research question:

Does the Blue Economy paradigm represent a real shift in the discourse and 'regime of practices' of ocean governance?

5. *In what ways does the BE paradigm problematise sustainable development of the oceans?*
6. *What practices are employed in BE operationalisation and by what rationality are they expected to deliver BE aims?*
7. *In what ways and by what means are actors enrolled in these new regimes of practices?*
8. *In what ways do material and spatial power relations explain forms of and sites of resistance in BE governance?*

2.3 Research design

The research programme was designed around fieldwork in Kenya and Seychelles, originally scheduled for summer 2020, but delayed until autumn/winter 2021/22 due to Covid travel restrictions. Extensive web-based research identified a range or pertinent case studies to the research question, and more were made known to me on arrival by certain key informants – both in Kenya and Seychelles. Cases were visited and key actors sought out and interviewed. Semi-structured interview questions were developed in advance of each interview, tailored to each

informant, comprising about 10 high level questions informed by my analytical framework and the role of the informant. These guided the structure of the interviews, but participants were allowed to talk quite freely. Interviews were typically of 45-60 minutes duration, some longer. Interviews were recorded for later transcription, or notes taken during interviews and written up fully the same or the following day. Some informants were reluctant to be recorded and in some situations it was impractical to record (e.g. noisy locations; when walking and talking). Site visits lasted half or a full day. In some cases, multiple interviews and site visits were used to write up a more unified case study to inform analysis. Analysis was in the form of a discourse analysis, based on published documents, key informant interviews and field observation.

2.3.1 Discourse analysis

Foucault considered discourse to be a technology of power and knowledge (Foucault, 1998). He argued that discourse shapes or produces reality by framing problems of government and by privileging certain solutions over others. Those solutions, in turn, give rise to practices and knowledges that themselves exert power over subjects. Discourse analysis has particular strengths for environmental policy analysis, including an awareness of the role of language and knowledge in constituting policies, polities and politics and as exerting power effects, and how practices of government are constitutive of power relations and knowledge systems (Feindt & Oels, 2005). Many authors have used discourse analysis to investigate environmental questions, for example: Griggs and Howarth (2019) analyse discourses surrounding UK airports policy; Zelli et al (2019) use discourse analysis to unravel institutional complexity in REDD+ governance; Shaw (2013) reviews international climate change policy targets as represented in the news media.

In a practical sense, discourse analysis involves the categorisation of texts, by coding, to identify common themes, issues, contradictions, etc. from which insights may be gained and conclusions

drawn. 'Texts' can include documents, speech, video, photographs, art, actions etc. In the case of visual and performance materials or observation, the researcher makes notes for later analysis as texts.

2.3.2 Research ethics

Data collection involved semi-structured interviews with key informants, who were either employees of international organisations and NGOs, national experts and decision makers, or community level actors. Informed consent was gained through use of a printed or electronic consents form, or where this was not appropriate verbal consent in which a simple prepared script allowed me to explain the nature of the research and the purposes for which the data would be used. Data was coded to conceal the identities of key informants, names being kept separately from codes in a secure file and server. Citations of informants use codes rather than real names. I did not pay informants, but where appropriate donated to community 'Conservancy Funds' and similar to reflect the value of individuals time. Data was stored securely as required by data protection and university procedures. My research design was approved by the relevant University of Oxford Ethics Committee.

I considered that the majority of my interactions with key informants were on an equitable basis. Participants were either of a certain standing in Kenya and so felt in a position of power, or had professional standing (such as engineers, spatial planners), or had made notable achievements which had generated a certain amount of outside attention and so were confident in talking with researchers. In respect of fisheries reform, I sensed that there were many aspirations yet to be fulfilled, and underacknowledged conflicts between various interests. I moderated my conclusions carefully to reflect this. In Seychelles, in connection with Fisheries Improvement Projects, I had to navigate commercial sensitivities and my access to data ultimately proved limited.

Regarding positionality, I see myself as an advocate of environment and its protection from unsustainable development, and of coastal and island communities. Here I aim to facilitate sustainable development through small-scale nature-based enterprise and community-led environmental protection. However, the fluid and dynamic nature of the oceans necessitates action at multiple scales to achieve these aims. I see collaboration at all scales, but especially between regional States, as essential for sustainable BE development. Certain resources, especially fish stocks, offer potential for significant wealth generation and are important for national economies. However, conflicts between commercial and artisanal exploitation can create or exacerbate inequalities. I am, therefore, an advocate of the 'diverse economies' framework which proposes protection of key resources for community use and against the pressures of global market forces and the capitalist economy. These perspectives guide my work and influence my interactions with policy-makers, practitioners, researchers, and the public. I have been reflective in my data collection and analysis, aiming to ensure that I avoid confirmation and structural biases arising from this positionality. At the same time my positionality, as I elaborate it now, has been shaped by my research reflecting the need to keep my evolving positionality in mind throughout the research process.

2.4 Field work and case studies

Case study areas selected embodied a complex intermingling of land and sea (Figure 2.1). Both straddle the equator and are part of the African continent, and the Western Indian Ocean regional sea. The WIO region comprises 10 states. On the continental landmass are Somalia in the north, with Kenya, Tanzania, Mozambique, and South Africa. The island states comprise Seychelles, Mauritius, Madagascar, Comoros and the French Overseas Territories of Réunion and Mayotte. The State's exclusive economic zones (EEZs) together create a complex mosaic of administrative territories (Figure 2.2). This intersects a variety of natural systems that exist at larger spatial scales. The WIO region is classified as a marine eco-region and hosts important marine species, habitats and ecosystems, including the Somali Coastal Current and the Agulhas Current large marine ecosystems

(LMEs), and the Mascarene Plateau (hosting the worlds largest seagrass bed). The Western Indian

Ocean (WIO) region comprises almost 6% (about 15,180 km^2) of the total global area of coral reefs,

and the region is a globally important hotspot for coral reef biodiversity.

Figure 2.1. Location of case study areas (maps source: Google Maps) on the east coast of Africa
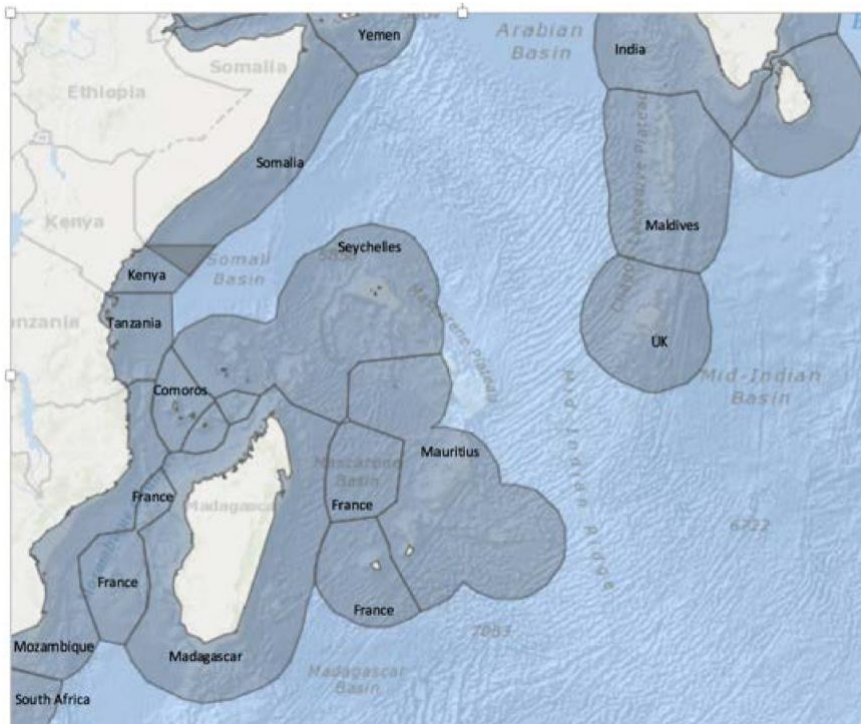
Figure 2.2. Map of the Exclusive Economic Zones (EEZs) of the countries of the WIO region. Source: Andriamahefazafy and Kull (2019).

The UN Regional Seas Programme provides administrative and technical support to the 10 states in the region to collaborate on environmental issues through the Nairobi Convention (signed 1985). The Indian Ocean Commission is an intergovernmental organisation comprised of five island States in the WIO (Comoros, Madagascar, Mauritius, Réunion, and Seychelles). A number of regional economic commissions (RECs), *ad hoc* partnerships promoting regional trade, are active in one or more of the region's states, notably IGAD, COMESA, EAC. The Indian Ocean Tuna Commission (IOTC) is based in Seychelles, coordinating individual states policies toward highly migratory tuna and tuna-like species. The SW Indian Ocean Fisheries Commission (SWIOFC) takes a broader interest in fisheries in general but in a smaller area of focus. Some significant programmes are funded by international donors (World Bank, GEF, UNEP etc) to support sustainable management of coastal and marine resources, such as the SWIOFISH and SAPPHIRE projects.

The Kenya coast includes a mix of open coast fringed with coral reefs, muddy creeks, lagoons and estuaries hosting mangrove forest and seagrass, and island archipelagos providing large relatively sheltered bodies of water supporting artisanal fishing and some eco-tourism. Kenya's EEZ extends to 230,000km^2 (compared to a land area of over 580,000km^2) and has received little attention until recently as a space of economy and of government. The Lamu archipelago in the north hosts about 65% of Kenya's mangrove resource. It is the site of the Lamu Port complex and associated navigation channels, and new planned industrial settlements. The central Kenya coast contains a number of small towns with a fishing and tourism based economy (eg Malindi and Watamu), Further south is Mombassa, Kenya's principle port and second city. North and south of Mombassa the extensive beaches are the basis for an international tourism industry. Further south, towards the border with Tanzania, are small areas of mangrove forest and island archipelagos. Kenya introduced a new constitution in 2010, devolving many responsibilities to the country's 47 Counties. A coastal region comprises 7 of these counties, together having a strong cultural identity arising from centuries of Arab rule and trade. A Sector Plan for the BE sets out strategic priorities.

The Seychelles is a continental archipelago of small islands arranged in far-flung groups, totalling 455km^2 in land area, in a large ocean territory of 1.37m km^2. In addition, an extended continental shelf area (beyond the EEZ) is jointly managed with Mauritius under Intergovernmental Oceanographic Commission agreement. Seychelles has been at the forefront of a rebranding of 'small island states' as 'large ocean states' and in the development and promotion of the BE concept. Notably, it has undergone an extensive marine spatial planning process, designated 30% of its ocean territory as Marine Protected Area (MPA), and launched (with World Bank support) the world's first Blue Bond for sustainable investment. Mahé is the largest island and main centre of government and industry. It sits on the Mahé Plateau, which supports the islands main inshore fisheries. Mahé is the centre of the Indian Ocean tuna fishery, having port facilities and a large tuna canning factory. Tuna products account for over 60% of Seychelles exports. The economy's main industry is tourism (37%

GDP in 2021), the islands being famed for their beautiful beaches. A BE Roadmap sets out priorities for BE development in Seychelles.

2.4.1 Case studies

The following summaries briefly describe a selection of cases that I draw upon as diverse sources of empirical evidence for my arguments in this thesis, contributing to and complementing the discourse analysis described above. These projects and enterprises on the Kenya coast and Seychelles were visited between October 2021 and March 2022. They were selected due to the relationship of each to natural marine resources, their strong association with place, and their ability to reveal new understandings of BE governance.

Kenya

Governmental programmes

In Lamu County two governmental programmes were investigated: fisheries reform and the LAPSSET (Lamu Port, South Sudan and Ethiopia Transport) corridor development programme. Both represent programmes led by the Government of Kenya to address their BE priorities. Fisheries reform recognises the importance of inshore fisheries to the coastal population, as a source of food and employment, but also that there is much waste due to poor infrastructure and poorly functioning markets and that coastal stocks of fish resources are under increasing pressure from poorly controlled fishing. The Government's response is a programme of stock assessment, fisher and fishing boat registration, infrastructure development, market reforms, and capacity building amongst fishing communities and fisheries co-management institutions.

The LAPSSET programme represents a longstanding development aspiration for Kenya and East African States to develop Kenyan oil reserves and improve inter-State trade in the Horn of Africa.

The north/north east of Kenya is remote and relatively sparsely populated and has been perceived as in need of development. However, initial developments have been met with effective resistance from local indigenous communities in response to environmental impacts of port construction and operation, dispossession of community lands, and poor community engagement. The 'Save Lamu' coalition, in working to make indigenous voices heard, has successfully taken the government to Court, securing significant sums in compensation and setting legal precedents.

Community initiatives

Kenya has an active community-led development sector. The Mikoko Pamoja project in Kwale County, community initiatives in Watamu, and Paté Island Community Conservancy in Lamu County were selected for study given their strong dependence on natural marine resources. Kenya's Constitution allows co-management of community resources, through agreement between formal Community Associations and the relevant government Ministry. These agreements specify what activities are permitted within a delimited area, both restricting certain uses and enabling others and aiming to ensure that natural resources are not over-exploited. On Paté Island, Kenyan and International NGOs have worked for a number of years to build community capacity and to enable more sustainable natural resource-based livelihoods, notably creating locally managed marine areas (LMMAs) for octopus fishery and mangrove forest consevation. In Gazi village, further south, the Mikoko Pamajo project conserves mangrove forest to generate carbon credits, the revenues from which support development projects to improve the lives of villagers. In Watamu, mangrove conservation efforts have taken an alternative route, with the establishment of tourism and hospitality focused social enterprises to create income and employment.

Seychelles

BE governance in Seychelles is characterised primarily by government-led and sanctioned programmes, rather than by community initiatives of which there is not a strong tradition in

Seychelles. I feature three here, Marine Spatial Planning (MSP), fisheries reform, and blue bond finance, which are all closely related and form the backbone of BE development in Seychelles.

Marine Spatial Planning

MSP was initiated in the Seychelles as part of a Dept for Nature swap, agreed in 2017, in which Seychelles national debt repayments were reduced in return for protecting large areas of ocean for nature conservation by designating them formally as marine protected areas (MPAs). The deal was negotiated by TNC (The Nature Conservancy), an INGO. TNC continues to support the process of MPA creation by leading an inclusive, evidence based MSP process to identify and classify ocean zones according to natural resources and allowed and prohibited uses. As the process has moved towards its close, Seychelles government are preparing a new legal framework for implementation.

Fisheries Reform

Inshore fisheries in Seychelles have been largely unregulated in the past. The SWIOFISH3 project is leading the development of a legal framework comprising new fishery regulations for registration and licencing, reporting, and technical measures, a management plan for the Mahé Plateau fisheries, and work to engage and educate stakeholders in the fishery regarding these new institutions.

Blue Bond

Alongside the negotiation of the debt swap, the government of Seychelles wished to raise finance to invest in tuna fishery development, in particular to support the development of higher value post-harvest processing than canning. With the support of World Bank and GEF (through the SWIOFISH programme) US$15m was raised on capital markets in 2018. A new fish processing area has been created by the government on reclaimed land in the port area, and a process put in place to select companies to invest in commercial activities at these new facilities. Complementing this, measures to improve the sustainability of tuna fisheries in the Indian Ocean involving major companies in the

supply chain is ongoing (a 'Fishery Improvement Project'), alongside governmental initiatives to improve transparency in the fisheries system (the Fisheries Transparency Initiative – FiTI).

2.5 Analytical method

Analysis comprised a discourse analysis of peer reviewed papers (paper 1 only); official texts - policy documents, Conventions, blue economy-related reports; reports of meetings (e.g. Nairobi Convention conference of parties); transcripts of interviews and field notes (see Figures 2.3 & 2.4). More detail is provided in the next section about text selection and, in the section following that, how they were coded.

2.5.1 Data sources and analysis

There are 4 sets of data sources. First is the set of 17 peer reviewed articles reviewed in paper 1, narrowed down from over 600 discovered through a systematic literature search. This work was conceived as the first Covid lockdowns prevented travel and generated considerable uncertainty regarding the ability to undertake any fieldwork. Second, is a set of policy documents (28) relating to or relevant to the BE in the WIO region, and representing (at the time of analysis) the collective BE policy for the cases selected for analysis. These were selected following a world-wide review of published BE policy reports, through which I identified the WIO as a case study area. Third, are interviews with those concerned with the creation and publication of those documents, conducted online (17 informants). Fourth are interviews conducted in person (and some online) in connection with fieldwork - specifically connected with site-based projects and broader policy initiatives in Kenya and Seychelles (over 59 informants).

Policy documents analysed comprised those issued by the African Union (AU) and its agencies, by international and multilateral institutions in the Western Indian Ocean Region, and by regional

States, notably Kenya and Seychelles (Table 2.1) relevant to BE development in the WIO region. Documents were identified through web searches for BE policy relevant to the region, and by identifying BE-relevant policy of key organisations (eg African Union; Nairobi Convention). Recognising that policy as written does not always turn into practice as intended, these data were triangulated with online semi-structured interviews with representatives of organisations responsible for producing many of the documents analysed (in March-July 2021), and with semi-structured interviews in the field (sometimes including field observation) with government officials and local practitioners and stakeholders in Seychelles and Kenya (Oct 2021 to March 2022) (see Table 2.2). These latter interviews and visits were selected through web-searches for relevant organisations and initiatives and by recommendation from key informants. Covid-19 travel restrictions delayed in person interviews and field observations for some months.

Figure 2.3. Fieldwork in Kenya: 1) With the Mikoko Pamoja Community Forest Association Committee; 2) following female octopus fishers to their fishing grounds on Paté Island.

Figure 2.4. 1) Prospective crab farmer interviewed amongst mangroves in Seychelles; 2) Observing catch being unloaded from the Mahé Plateau fishery, Seychelles.

Table 2.1. Documents subject to discourse analysis

Title	Spatial remit	Focus	Publisher/date
Blue economy flagship. A briefing note for partnership.	African Continent	Prepared for Blue Economy Conference in Nairobi, Kenya, 26-28 November 2018.	African Development Bank Group, 2018
2050 Africa's Integrated Maritime strategy (2050 aim strategy).	African Continent	Maritime strategy	African Union (2012)
Conference Report. African Ministerial Conference on the Environment. Seventeenth session	African Continent	Marine environment	AMCEN (2019).
Africa Blue Economy Strategy. Nairobi, Kenya. Strategy report and Annex's 1-5	African Continent	Blue Economy development	AU-IBAR, 2019.
Development of the AUDA-NEPAD Blue Economy Programme. Messages from Stakeholders	African Continent	Blue Economy development	AUDA-NEPAD 2019.
Introducing the sustainable blue economy finance principles	Global	Blue Economy finance	European Commission (2017).

Declaration of the sustainable blue economy finance principles.	Global	Blue Economy finance	European Commission (2018)
Sector plan for blue economy. State Department for Fisheries, Aquaculture and the Blue Economy, Ministry of Agriculture, Livestock, Fisheries and Irrigation.	Kenya	Blue Economy development	Government of Kenya (2018).
High Level Panel For A Sustainable Ocean Economy, Western Indian Ocean (WIO) Regional Meeting. 2 – 3 December 2019, Mombasa, Kenya. Meeting Report	WIO Region	Blue Economy development	HLP, 2019.
A regional strategy for conserving marine ecosystems and fisheries of the Western Indian Ocean Islands Marine Ecoregion (WIOMER).	WIO Region	Marine environment	Indian Ocean Commission (IOC). 2010.
Building the Blue Economy in the Western Indian Ocean. 8th Conference of Parties Meeting for the Nairobi Convention, 22-24 June 2015 *Mahé*, Seychelles. Blue Economy and Oceans Governance Workshop	WIO Region	Blue Economy development	Kelleher, K. (2015).
Ministerial segment, Durban, South Africa, 14 and 15 November 2019. Advancing the blue/ocean economy in Africa	African Continent	Blue Economy development	AMCEN (2019)
Seychelles Blue Economy: Strategic Policy Framework and Roadmap. Charting the future (2018–2030).	Seychelles EEZ	Blue Economy development	Republic of Seychelles (2019).
Report On The Global Sustainable Blue Economy Conference. 26th – 28th November 2018, Nairobi, Kenya	Global / Africa	Blue Economy development	SBEC (2018)
The Nairobi Statement of Intent on Advancing the Global Sustainable Blue Economy. Sustainable Blue Economy Conference, Nairobi, Kenya	Global / Africa	Blue Economy development	SBEC (2018).
Unlocking the full potential of the blue economy: Are African Small Island Developing States ready to embrace the opportunities? Addis Ababa, Ethiopia	African continental islands	Blue Economy development	UNECA (2014)

Africa's Blue Economy: A policy handbook. Addis Ababa, Ethiopia	African Continent	Blue Economy development	UNECA (2016a)
The Blue Economy. Report. Addis Ababa, Ethiopia	African Continent	Blue Economy development	UNECA (2016b)
Blue Economy, Inclusive Industrialization and Economic Development in Southern Africa. The 24th Session of the Inter-Governmental Committee of Experts (ICE) (Senior Government Officials) of Southern Africa. 18 – 21 September 2018, Balaclava, Mauritius. United Nations Economic Commission for Africa Addis Ababa, Ethiopia	Southern Africa	Blue Economy development	UNECA (2020)
AFRICA'S BLUE ECONOMY: Opportunities and challenges to bolster sustainable development and socioeconomic transformation. Issue Paper produced for the Sustainable Blue Economy Conference. 26th – 28th November 2018, Nairobi, Kenya	African Continent	Blue Economy development	UNECA (2018)
Transformative Growth in Eastern Africa: Catalysts and Constraints. ECA-EA/ICE/21	Eastern Africa	Regional Economic Development	UNECA (2017)
Green Economy in a blue world. Nairobi, Kenya	Global	Sustainable ocean development	UNEP (2012)
Report of the eighth conference of parties to the convention for the protection, management and development of the marine and coastal environment of the Western Indian Ocean (Nairobi Convention). *Mahé*, Seychelles. 22-24 June, 2015.	WIO Region	Marine environment	UNEP (2015)
Marine Spatial Planning of the Western Indian Ocean Blue Economy. UNEP/NC/FP/2017/4/Doc/13	WIO Region	Spatial planning	UNEP (2017)
The Potential of the Blue Economy: Increasing Long-term Benefits of the Sustainable Use of Marine Resources for Small Island Developing States and Coastal Least Developed Countries. World Bank, Washington DC.	Global	Blue Economy development	World Bank (2017a)

The Ocean Economy in Mauritius: Making it happen, making it last. Washington DC, USA	Mauritius	Blue Economy development	World Bank Group (2017b)
Principles For a Sustainable Blue Economy.	Global	Blue Economy development	WWF (2017a)
Reviving The Western Indian Ocean Economy. Gland, Switzerland	WIO Region	Blue Economy development	WWF (2017)

Table 2.2 Key informants interviewed

Organisation	Expertise	Date of interview
International BE informants		
1. Association for Coastal Ecosystem Services (ACES)	Administering community accreditation and carbon credit sales	05.11.2021
2. AU-IBAR*	Intergovernmental Agency	03.05.21 Online
3. AUDA-NEPAD	Blue Economy policy	12.04.2021 Online
4. Contact Group****	Maritime security	22.04.21 Online
5. CORDIO East Africa	International ocean governance	20.04.21 Online
6. IGAD**	Regional Economic Community	27.04.21 Online
7. Independent Expert	International ocean governance	08.04.21 Online
8. Independent Expert	International ocean governance	18.05.21 Online
9. Indian Ocean Commission	Regional collaboration for ocean governance	15.05.2021 Online
10. Indian Ocean Commission (IOC)	International environmental policy coordination	15.05.21 Online
11. IOTC (Indian Ocean Tuna Commission)	International Fisheries Policy Coordination	17.05.21 Online 01.03.22 In person
12. Nairobi Convention	International environmental policy coordination	22.06.21 Online
13. Plan Vivo	Accreditation body for carbon credits	01.12.2021
14. RMIFC	Maritime crime and surveillance coordination	27.05.2021 Online
15. UNEPFI Sustainable Blue Economy Finance Initiative	Sustainable finance	04.05.2021 Online
16. WIOMSA (Western Indian Ocean Marine Science Association)	Marine science and evidence-based policy	04.05.2021 Online
17. WWF	Sustainable finance	18.05.2021 Online
Kenya cases		
18. Beach Management Unit	Community based fishery management	18.12.2021
19. County Adminstration	Coastal fishery management in Lamu County	4.11.21 and 20.12.21

20. Crab Shack	Community-led environmental cons4ervation and eco-tourism	31.10.21 and 28.01.22
21. Debaso Creek Conservation Association (Prawn Shack)	Community-led environmental cons4ervation and eco-tourism	30.10.21
22. EU Delegation, Kenya	GoBlue project and inter-County cooperation in Kenya	08.12.21
23. Gazi Community Forest Association	Community-based resource management	27.10.21 In person
24. Go Blue project	Coastal blue economy development programme	
25. Government of Kenya	Blue Economy policy	17.11.21 In person
26. Government of Kenya	Blue Economy policy	16.03.22 In person
27. Jumuiya ya Kaunti za Pwani	Policy coordination for coastal Counties in Kenya	03.11.21 and 25.01.21
28. Kenya Wildlife Service, Watamu Marine National Park and Reserve	Wildlife governance and community engagement	29.01.22
29. Kibuyuni Seaweed Cooperative	Seaweed farmers	05.12.21
30. Kumbatia Seafood	Fish marketing start-up	08.12.21 (in person), 16.12.21 (online), 27.01.22
31. Lamu County Government	Spatial Planning	03.12.21
32. Lamu Environment Foundation	Community environmental conservation	23.11.21
33. Lamu Marine Conservation Trust	Local marine conservation, eco-tourism and plastic waste management	03.12.21
34. LAPSSET CDA	Port Development -spatial planning	19.10.21 In person
35. LAPSSET CDA	Port Development - community liaison	16.03.22 In person
36. LAPSSET CDA	Port Development – construction management	02.12.21 In person
37. Lobster fishers, Lamu	Artisanal fishing	Various, Oct/Nov 2021
38. Paté Marine Community Conservancy	Octopus fishers, Paté Island	22.12.21
39. Paté Marine Community Conservancy	Community Conservancy leaders, Paté Island	22.12.21
40. Paté Marine Community Conservancy	Marine Conservancy security staff, Paté Island	22.12.21
41. Save Lamu	Community Action Group	15.11.21, 25.11.21, and 24.12.21
42. Taka Taka Heroes	Community plastic waste collection and recycling	23.12.21
43. Technical University of Mombasa	Blue economy innovation	09.03.21
44. TNC (The Nature Conservancy), Kenya	Coastal resource conservation	10.11.21 and 5.1.22 online
45. UNEP, Kenya programmes	Lamu port development	21.10.21

46. WWF Kenya	Conservation management in Lamu County, Kenya	29.10.21
Seychelles cases		
47. Development Bank of Seychelles	Administration of Blue Bond finance	21.02.22
48. Enterprise Seychelles Agency	Entrepreneurship and innovation ecosystem	01.03.22
49. Entrepreneur	Fishing post-harvest sector	22.02.22
50. Fishing Boat Owners Association	Fishing sector	24.2.22 In person
51. Government of Seychelles	National fishery policy (SWIOFISH programme)	17.02.22 Online
52. Government of Seychelles	National fisheries operational administration	24.02.22
53. Government of Seychelles	National BE Policy (group interview)	14.04.21 Online 23.02.22 In person
54. Government of Seychelles	National policy development	25.02.22
55. Government of Seychelles	Blue Economy Policy	03.03.22 In person
56. Government of Seychelles	Mascarene Joint Management Area coordination	16.04.21
57. Government of Seychelles	Fisheries policy	01.03.22
58. Government of Seychelles (NC representation)	International environmental policy coordination	28.04.21 Online
59. Government of Seychelles JMA***	International environmental policy coordination	16.04.21 Online
60. Government of Seychelles, Department of Environment	Marine spatial planning and its implementation framework	03.03.22
61. Government of Seychelles, Ministry of Internal Affairs	Maritime transnational organised crime	29.04.2021 Online
62. Independent Expert	Carbon accounting	21.02.22 In person
63. Independent expert	Seychelles fisheries management and aquaculture development	03.03.22
64. Petroseychelles	State owned petrochemicals development agency	25.02.22
65. SeyCCAT (Seychelles Conservation and Climate Adaptation Trust)	Community-led BE innovation	16.03.22
66. SeyCCAT	Seagrass conservation and blue carbon	17.03.22
67. SeyCCAT	Multistakeholder workshop regarding seagrass conservation and blue carbon	23.02.22
68. Seychelles entrepreneurs	Meetings with BE entrepreneurs funded by SeyCCAT grants programme.	Feb/March 2022
69. The Guy Morel Institute	Entrepreneurship and innovation ecosystem	03.03.22
70. TNC (Seychelles)	Marine spatial planning	16.03.22
71. TNC, Seychelles	Coastal resource conservation / Marine Spatial Planning	16.02.22 In person

* African Union Inter-African Bureau for Animal Resources

** Intergovernmental Authority on Development in Eastern Africa

***Joint Management Area of the Extended Continental Shelf

**** Contact Group on Piracy off the Coast of Somalia

2.5.2 Coding Framework

Texts were coded according to a predetermined, high-level framework. This follows Deans' (1999)

analytic of government (simplified, after Russel and Frame, 2013), based on Foucault's

governmentality concept, but augmented with a complementary framework based on place-space-

time theories (after Malpas, 2012) to aid in drawing out place-based factors. Dean's framework for

analysis of governance consists of three analytical categories - problematisations, utopias, regimes.

Malpas, in contrast, is concerned with place and space rather than institutions. He considers space

to be subordinate to place and place to comprise of *bounded space-times*. Place is underpinned,

therefore, Malpas argues, by three fundamental elements: boundedness, openness and emergence.

In my interpretation, boundedness denotes the physical and is therefore spatial; openness

encompasses access and opportunity, and their converse - exclusion and risk; emergence represents

time, becoming and movement. These place based elements of the analytic framework complement

Dean's and enable fuller consideration in governmentality analysis of the material (which is spatial)

and the spatial delimitation of institutions for governance, of opportunity and potential, and of

trajectories and outcomes resulting from governance regimes. These are aspects of discourse and

environment which are not explicitly revealed in a governmentality analysis alone and which are

important in understanding the influence of place in governance and governmentality.

2.5.3 Analytical process

Texts were coded according to an analytic framework of governmentality and place (see Table 2.3)

using NVivo 12 software. Under each secondary heading, additional categories were created

inductively. Interview texts were coded inductively to provide more robust triangulation, allowing

themes to emerge from interviewees experiences, opinions, and priorities. Coded text was

transferred in summary form to a digital mind map (SimpleMind Pro), providing a visual

representation of coding themes, and a platform on which to easily manipulate coding

interrelationships in a further level of analysis allowing the construction of coherent narratives

based on a clustering of themes. This enabled cross-linking of topics and re-ordering and synthesis of

the governmentality and place-space-time coding so as to better represent the complex

interrelations of spatialised governance that are characteristic of ocean environments and the blue

economy (see Figure 3 for an example). A narrative summary was produced for each of the resulting

thematic clusters. Further analysis involved the identification of specific technologies, institutions,

knowledges and practices of government – collated into a spreadsheet and categorised inductively.

Further inductive analysis, conducted through close readings of empirical data collected through

fieldwork informed by dispositif scholarship, led to elucidation of constituent spatial relations of the

BE dispositif, and circulations within the dispositif.

Table 2.3. Depicting the coding framework used in this study for discourse analysis.

'Spatialised Governmentality' Coding Framework	
Place-space-time (developed from Malpas, 2012)	**Governmentality** (developed from Russel and Frame, 2013, after Dean, 1999)
Boundedness • Territory • Populations • Biophysical materialities • Institutions	**Problematisation of government** • Territory and resources • Populations • Environment (and resource conservation) • Institutions
Openness • Development pathway • Access to resources (open or closed) • Opportunity / Potential / Risk	**Invention of utopia** • Visions/ Imaginaries (of development/governance) • Social justice • Articulation of benefits

Emergence	Operationalisation of regimes of practices
• Development - African renaissance / Sustainable development / Uneven development / BE Becoming • Forms of conduct • Forms of Identity	• Strategies/ Policies (to achieve development) • Practices / Norms • Devices / Technologies (ie the form or nature of the regime - cf. identity)

Note: Headings in bold represent the previously published frameworks. Bullet points have been developed empirically as part of this research.

Figure 3. Illustrating a section of the main policy discourse mind map, showing nodes, connections, and narrative description of inductively derived thematic clusters. The full mind map is available as an annex to paper 2.
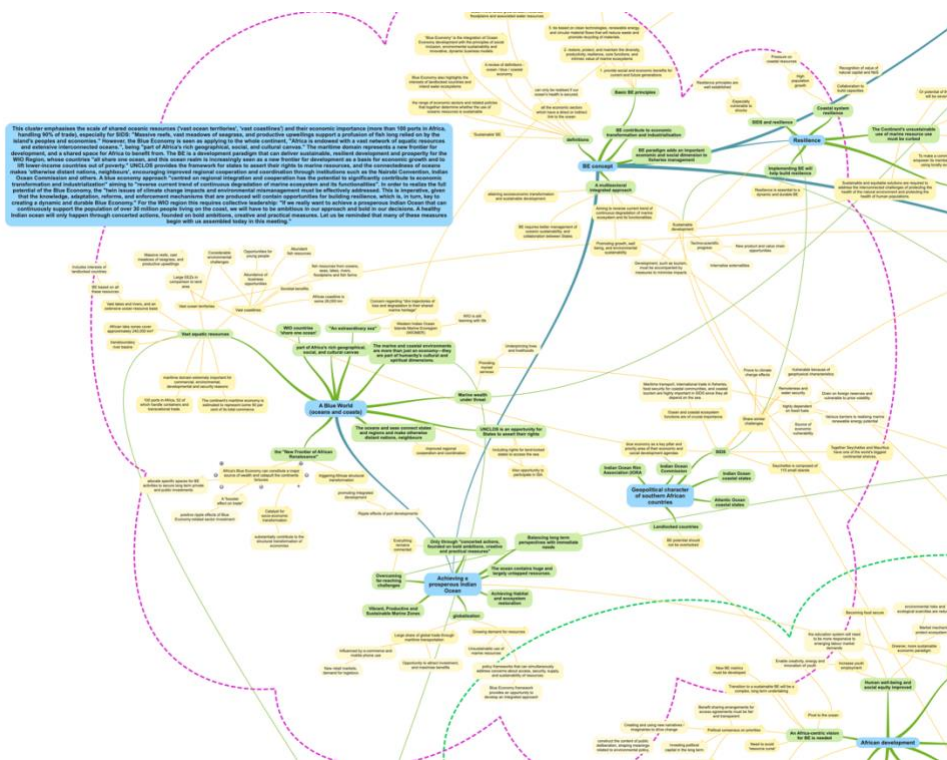
2.6 Summary

I have presented in this section my analytical approach, justified by reference to the literature. I have described my field work/case study sites and the reasons for their choice, and presented my data sources. Finally, I have described my analytical process and the particular innovations developed for

this study, notably the place-based framework and the combination of Nvivo coding with mind-

mapping as a categorisation and narrative building technique.

3. A blue economy governance analysis

Summaries and interlinkages between papers

Paper 1. What is the Blue Economy? A spatialised governmentality perspective.

(Published: Maritime Studies)

In paper one I review published cases of BE *as enacted*, testing and refining a new spatialised

governmentality analytical framework. The review demonstrates that BE can have unintended

consequences as a result of global economic forces and the privileging of economic growth. I

question the importance of 'place' and consider the role of spatio-material factors in BE governance.

Paper 2. Enacting the blue economy in the Western Indian Ocean: a 'collaborative blue economy governmentality'.

(Published: Environment and Planning E: Nature and Space)

Paper two represents an analysis of BE policy in the WIO region, making use of and refining the

framework published in paper one. I make the case that BE represents a case of global

governmentality. It reflects the particular nature of the ocean as a shared space, and takes a

collaborative rationality – a 'collaborative governmentality'. I argue, however, that this

governmentality is immature, pointing to the many resources being devoted to building capacities

and capabilities, and to more direct counter conducts, or resistance, from marginalised groups.

Paper 3. From piracy to sustainable development in the Western Indian Ocean: securing a blue economy space.

(Under review: Environment and Security)

Security is a consistent theme throughout the WIO BE discourse. In paper three, therefore, I analyse

the case of maritime security in the WIO region in more detail, as an example of collaborative

governmentality, to reveal the technologies and practices by which people and organisations are subjectified and enrolled in it. I highlight the role of maps, codes of practice, and guidance. I further consider the importance of surveillance and the challenges of securing the oceans as a blue economy space.

Paper 4. Rethinking environmental governance for development: the *blue oeconomy* dispositif

(Under review: Geoforum)

In Paper four I consider these technologies, practices, knowledges and institutions in the broader context of the BE 'dispositif', the ensemble of practices and technologies which combine to enable a governmental rationality to emerge. I characterise the BE as a 'security dispositif', concerned with food and livelihood security, and related environmental degradation. I explore the philosophical origins of the dispositif concept and link it to different conceptions of political economy through the ages. Returning to the theme of 'place' I call for a *blue œconomy*, recalling earlier conceptions of economy than that of today, which privileges co-management of natural resources at community scale in ways that are adaptive, prudent, and equitable.

Interlinkages

Together, these four papers represent an interrogation of the BE through a spatialised governmentality perspective. In paper one I develop and test a new analytical framework, and analyse a worldwide selection of BE cases to question the importance of place-based policy. In paper two I make use of and further develop my analytical framework, and use it to draw new insights into the emergence of the BE in the WIO region, and for governmentality studies conceptualising a 'collaborative' governmentality. I explore, in paper three, the technologies and practices that are deployed to effect this collaborative governmentality, in particular to territorialise and secure oceans as BE spaces. Finally, in paper four, I describe the BE as a security dispositif, a broader

analysis than governmentality, to shed light on the wider technologies, knowledges, practices and

institutions at work in the BE, as the basis for a rethinking of environmental governance from a

place-based perspective.

Paper 1: What *is* the Blue Economy? A spatialised governmentality perspective

Abstract

The Blue Economy is a recent economic development paradigm, being promoted worldwide as a way to deliver sustainable ocean development in the context of the sustainable development goals. Research has drawn attention to its contested nature and the propensity of sectoral interests to co-opt it to their own ends. An emerging body of critical studies of the blue economy, as practiced, provides an opportunity to address the question "What is the blue economy?" in new ways. This Review of published empirical case studies initiates a conversation between governmentality concepts and place-space-time theory, aiming to open new lines of enquiry regarding the influence of spatiality on the nature of governance. This approach has allowed the elucidation of a complex and nuanced understanding of the blue economy, complementing earlier discourse and content analyses. In relation to blue economy governance I pose the specific question, "Does place matter?", leading to an interrogation of material and spatial relations in blue economy governance. I describe a complex spatialised governmentality, dominated by growth-based imaginaries and market-led practices. I draw attention to the production of ocean space through socio-material blue economy relations and the material and spatial contingency of its governance. Finally, I draw a distinction between 'place' and 'location' which has important consequences for blue economy governance.

1.0 Introduction

The advent of the Rio+20 conference in 2012 stimulated a rapid convergence of interests around the concept of the Blue Economy (BE). This linking of ocean governance and economic development arose from a growing concern regarding the status of the ocean's resources and their management

and the search for a suitable conceptual framing as the basis for a new push for sustainable ocean policy (Silver et al., 2015) at a time of rapid international policy development (Sustainable Development Goals - SDGs, small-scale and rights-based fisheries policies, and various high seas enclosures for conservation, seabed mining, etc).

Voyer et al. (2018) trace the origins of BE to the Bruntland Report (1987) as a manifestation of sustainable development thinking in which the environment is exploited for societal needs but protected at the same time. Similar to the 'green economy' it emphasises market-based instruments to address environmental threats (Arsel & Büscher, 2012; Castree, 2010a, b; Corson, MacDonald, & Neimark, 2013). The BE paradigm presents the ocean through competing discourses – as a space for wealth creation in response to continued world poverty and inequality, and as a threatened and vulnerable ecosystem in need of protection in response to profound changes resulting from climate change, pollution, over-fishing and habitat destruction. BE conceptions have reframed the oceans in the manner of a land-based resource assemblage[11], rather than an inhospitable realm to be explored and feared. As such it can be managed and developed, allocated as property, opened to markets, and governed (Winder and Le Heron, 2017). The Blue Economy is subject to an emerging body of scholarship (e.g. *Categorisations*: Eikeset et al 2018; Voyer, et al 2018; Winder and Le Heron, 2017; Kathijotes, 2013. *Regional examples*: Patil et al 2016, 2018. *Potentials*: Potgeiter, 2017; Pauly, 2018; Sakhuja, 2015). Bennett (2018) draws attention to concerns regarding social justice and inclusion in the development of the oceans and highlights ten consequent risks for the ocean economy (Bennett et al. 2021): 1) dispossession, displacement and ocean grabbing; 2) environmental justice concerns from pollution and waste; 3) environmental degradation and reduction of ecosystem services; 4) livelihood impacts for small-scale fishers; 5) lost access to marine resources needed for food security and well-being; 6) inequitable distribution of economic benefits; 7) social and cultural impacts; 8)

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[11] An assemblage comprises a collective of heterogeneous elements (stakeholders, technologies, materialities, etc), stabilised for a time through diverse relations (Anderson and McFarlane, 2011).

marginalization of women; 9) human and Indigenous rights abuses; and, 10) exclusion from governance. For Campling and Colás (2018), the oceans are a space of 'terraqueous territoriality' in which socio-natural power relations effected through capitalism actively shape the spaces of the ocean.

In this paper I utilise the concept of governmentalities as an epistemological framework for BE research, alongside the theory of space-times and development, in an attempt to lay the foundation for a more spatialised perspective on BE governance. That is, a perspective more attuned to the unique material qualities of the oceans, the complex ecological processes and fluidity of the sea and life within it, and the consequences of place-based human-environment relations. The inadequacies of the terrestrially derived concept of 'territory' as a unit of ocean management have been pointed out (e.g. Steinberg and Peters, 2015; Campling and Colás, 2018; Peters, 2020), various authors juxtaposing bounded ocean territories (such as Exclusive Economic Zones, or EEZs) to which management is applied with the extensive and fluid marine ecological systems which they intersect, one having little relation to the other.

Whilst we might think of the BE as representing a particular governmentality (or a rationality of government), how is this governmentality manifested in materially and ecologically different places, for example a port versus the open ocean? This raises the important question of how is governmentality translated into action, and does 'place' matter? This is a particularly timely question as the oceans are being rapidly territorialised, often in the name of the BE, through the implementation of marine spatial planning (Boucquey et al., 2019) and the creation of large zones in the open oceans - for nature conservation or extractive activities, for example.

In the following sections I review published research on the BE paradigm, from critical geographies scholarship, before introducing the conceptual frameworks I use in this review to glean new insights into the spatiality of ocean governance. The Methods section presents the approach I take to this Review and the selection criteria for selection of cases, and is followed by a narrative based on my

analysis. Finally, I discuss the findings in relation to the research questions, and draw some conclusions.

1.1 The Blue Economy – a contested paradigm

Whilst much effort has been expended by international actors (e.g. World Bank, UNEP, WWF) to develop and promote BE policy, there remain contested aspects amongst multiple economic and political actors. Indeed, who is an actor itself remains contested as the legitimacy of certain sectors (e.g. carbon-intensive industries like oil and gas, and the emerging industry of deep seabed mining) to be considered a component of the BE is questioned by some, especially communities and NGOs that reject growth-based values (Voyer and van Leeuwen, 2019). Inevitably, whilst the BE remains conceptually fluid, different interests seek to frame the BE to suit their priorities and worldviews. At Rio+20 Silver et al. (2015) identified competing discourses prioritising 'natural capital', 'good business' and 'livelihoods' framings. Voyer et al (2018) later add an innovation framing, encompassing the co-occurrence of sub-themes relating to investment, innovative financing and private sector involvement in Blue Growth strategies. This serves to illustrate the continuing evolution of the BE paradigm, reflecting Silver et al.'s (2015:153) observation that opportunity remains to "further adopt or subvert the term in ways that advance diverse objectives, progressive politics, and governance practices." Nevertheless, should we not be able to explain what characterises the Blue Economy as a development paradigm? Recent scholarship presents a significant number of empirical case studies, mostly from a critical perspective, that may provide sufficient evidence for that question to be answered.

Amongst that body of scholarship, a growing 'degrowth' discourse presents a range of alternatives to dominant capitalist, growth-based societies (e.g. Hadjimichael, 2018; Ertor and Hadjimichael, 2020; Kerschner et al., 2018; Weiss and Cattaneo, 2017; Cosme et al., 2017). Degrowth theorists and practitioners support an extension of human instead of market relations, demand a deepening of democracy, a defence of ecosystems, and a more equal distribution of wealth (Schnieder et al.,

2010). Less radical are calls to reshape capitalism recognising local social and environmental diversity and needs (Fullerton, 2015), and to privilege diverse, parallel economies (Gibson-Graham, 2014). A recent special section on BE degrowth in the Journal *Sustainability Science* provides much material for analysis (see Ertor and Hadjimichael, 2020). In the main, this body of work is grounded in Marxist theory and political ecology, foregrounding social injustice embedded in capitalist economies. Other research deploys content analysis (e.g. Voyer et al, 2018), and assemblage thinking (e.g. Winder and Le Heron, 2017), but very little scholarship to date approaches the BE from a governmentality perspective (but see Choi, 2017). This gap should be urgently addressed as governmentality has the potential to provide insights both into the emergent character of the BE and to inform how policies should be formulated and enacted in the future. Furthermore, as the ocean is spatially and materially heterogeneous, the influence of these factors on the efficacy and therefore mode of governance demands attention. In the next section I set out the conceptual frameworks I use to explore these issues.

1.2 Conceptual frameworks

In this Review I use two analytical lenses: the concept of governmentality and theory regarding place-space-times (both of which are introduced in the next section). In doing so, I aim to generate new insights into emerging practices of BE governance and how these are mediated by spatial and material relations.

The concept of *governmentality*, the *process of governance* as distinct from the *institution of Government,* was introduced by Michel Foucault (1991, 2008). Foucault's major contribution was to recognise that modern rule was exercised through the deployment of tactics and the construction of knowledge rather than the imposition of law. Thus, governing is enacted through the construction of certain truths and their circulation via normalizing and disciplining discourses and practices that enrol society in the act of governing (Foucault, 1990). Governmentality has been widely applied, and

critiques focus more on research practice than fundamentals (e.g. McKee, 2009; Rutherford, 2007). In the context of *environmental governance* then, the governmentality perspective gets to the heart of power. As Rutherford (2007, p295) puts it, "ways in which the environment is constructed as in crisis, how knowledge about it is formed, and who then is authorized to save it become important for understanding the ways that the truth about the environment is made, and how that truth is governed". Studies of modern government through the lens of governmentality have revealed that governance as a manifestation of power takes place in multiple sites, through different discourses, and often outside the traditional boundaries of the state (Dean 2010a, Allen, 2004; Murdoch, 2006; Rutherford, 2007; Ettlinger 2011). A growing body of literature attends to the concept of 'green governmentality' and multiple governmentalities in environmental governance (see Fletcher and Cortes-Vazquez, 2020) but the Blue Economy is yet to feature. There have, however, been a few studies of the BE as discourse (as noted earlier), discourse being an important element of the operationalisation of governmentalities.

For Foucault, discourses are an important manifestation of power and it is through discourses that governance is enacted. They shape how we know the world and thus also constrain how we act in it. Foucaultian discourses are more than a 'worldview' (i.e. being representational; Hook, 2001), they are contextually contingent, both historically and socio-materially. In legitimating how we act (Winkel, 2012) they are closely imbricated in the 'conduct of conduct' (Foucault, 1991), and therefore of governance and governmentalities. Spatial imaginaries are regarded as *representational* discourses of spaces and places, but have more recently also been recognised as *performative* (Watkins, 2015) and so more in tune with a Foucaultian conception of discourse. Both discourses and imaginaries, therefore, are fundamental to the operationalisation of governmentalities. That is, they shape how problems of government, such as sustainable ocean management, are rationalised, what and whose knowledges are used in that rationalisation, what practices are therefore proposed and what relations result. Multiple discourses and imaginaries signify the possibility of political struggle. Using governmentalities as an analytic of government is helpful in shining a light on

relations of power and knowledge *and what governmental practices result*, so providing a much richer account than discourse analysis on its own.

Whilst governmentality is recognised as having spatial dimensions (Murdoch, 2006), these have been related more to scale (centre and periphery; governing at a distance) than to the governance of '*place*'. Indeed, it is hard to find reference to place in the governmentality literature (but see Balke et al, 2018 and Lee and Herborn, 2003 which both concern urban infrastructures). Rutherford (2007, p303) makes the important point, to the context of this study, that "power is enacted somewhere – not just as a metaphor but as a spatial reality. Power works through institutions, governments, corporations and bodies that are material and particularly located." Power is a constituative act of inclusion and exclusion (Torfing, 2009), and so is central to the nature of these relations. In the introduction I ask, does place matter in relation to how governmentality is manifested in the BE paradigm? To answer this challenge necessitates further development of the spatial dimensions of governmentality to include an understanding of space and place, and the related concept of time.

The concept of space-times is common to mathematics, physics and geography and has its roots in Greek philosophy (Malpas, 2012). Whilst each discipline has its own analytical and descriptive approaches they share fundamental concepts and principles. In geography space is considered to be an open and extended condition which is defined by the ordering of things in relation to each other (Massey, 2005). Time is an ongoing sequence of events out of which things come into being. Thus, a space-time is an ordering of things following emergent trajectories, and is therefore contingent of historical events and spatial relations. Massey (2005) stressed the existence of a multiplicity of space-times for this reason. Drawing on Escobar's critique of the hegemonic western development perspective (of 'developed' countries being 'ahead', and 'undeveloped' countries being 'behind') she used space-time theory to argue for more acknowledgement of alternative development futures. Malpas (2012) sought to bring place more fully into consideration, echoing Rutherford's (2007) emphasis on place as a site of governance. Malpas sees place, rather than an open and extended

condition, as a *bounded space-time*. Malpas considers place, space, and time as inextricably linked, through the concepts of *boundedness, openness* and *emergence*. Reviewing the origins of the concepts of place, space, and time he argues that a shift has occurred in geographical theory to the idea of space being infinite extension and that boundaries are considered incidental (Massey, 2005) or non-existent (Thrift, 2006). Malpas makes the case instead that boundedness is fundamental to relational geography. In a philosophical sense boundedness presupposes difference, and difference presupposes relationality. Further, it is boundedness that "establishes a certain oriented locatedness". Thus, in Malpas' view boundedness can be thought of as the possibility of orientation and location, or establishing a 'here' and a 'there' and so differentiating place.

I use these concepts as analytical frameworks in the following ways:

Governmentalities. According to Dean (2010a. p31) an analytics of government "examines the conditions under which regimes of practices come into being, are maintained and are transformed……These regimes …. include, moreover, the different ways in which these institutional practices can be thought, made into objects of knowledge, and made subject to problematizations." Thus, Dean's framework, in its simplest form, has three components:

- *problematisation of current practices of government*, i.e. how is the problem in need of governance framed and the favoured solution rationalized?
- *creation of a utopian vision*, i.e. how is the objective or outcome of government articulated to the population
- *operationalisation of regimes of government*, i.e. how is the vision to be achieved, through what practices and institutions of control?

Thus, a Foucaultian *analytics of government* aims to identify its constituent elements and relations and how they are assembled and stabilised as organisational and institutional practice. It considers the knowledges on which the regime is based or which legitimise it, and

how these knowledges might be challenged. It examines the technologies and mechanisms through which practices operate, achieve their goals, and effect governance.

Place-space-times. Malpas' (2012) argument that place is a bounded space-time rests on the characteristic of space being extension, or *openness*. Extension is 'a making room for' but also 'an enclosing around'. Thus, space is open but also bounded. Being open creates 'space' for appearance, for coming into being, or *emergence*. This emergence Malpas claims is the origin of time, reflected in movement, becoming, events, etc. Being *bounded* recognises difference and therefore relationality and creates the possibility of location. Thus, we can equate boundedness broadly with place, openness with space and emergence with time, although this is to overly simplify their inextricable relationships and interdependencies. This ontology enables us to analyse the constellations of social and material relations (the topologies and topographies of space of Deleuze, Massey etc. See Murdoch, 2006) that result from governance of ocean space. In particular this analytic enables insights into the very character of place (its boundedness), its potentialities or risks in response to governance (openness, or open space), and what are the outcomes (emergence) of practices of governance.

In the next section I describe how cases were selected for this review, and outline the analytical process. In the Results section I present differing perspectives of the BE, from both governmentality and place-space-times perspectives, in the form of two complementary narratives based on analysis of the selected cases. In the discussion, I address my central question of 'does place matter?', developing new insights into the spatialised governmentality of the BE.

2.0 Methods

This is a Review article, using sources published in peer reviewed journals and aiming to understand the state of knowledge regarding the blue economy, through the lens of spatialised governmentality, as understood from empirical case studies. I address the research question "how is BE

governmentality manifested in materially and ecologically different places?" and the related question "does 'place' matter?" in the context of how BE governmentality is put into practice.

2.1 Literature search

To select articles for analysis, primary and secondary search terms and strings (Table 1, A & B) were compiled. Blue Economy and a variety of derivatives (blue growth, blue finance, blue carbon etc) formed the primary terms. Secondary terms are drawn from the critical geographies literature, selected inductively on the basis of the initial literature review (not the reviewed papers) and the author's knowledge of critical geographies literature, and grouped in categories chosen to represent the scope of scholarship on this and similar topics. The use of critical geography terms as selection criteria flows from the governmentality analytic lens and consequent interest in social and environmental justice and the important role of power relations and materiality in governance.

In assembling search terms we are actively framing knowledge, and hence this must be done reflexively. My aim was to develop a simple descriptive framework of the BE domain which can be further developed as the domain evolves.

There is much related literature on ocean economy, ocean materiality, its social construction etc. However, this is not framed as BE scholarship and therefore is not included in this review.

Table 1 Hierarchy of search terms

A. Primary search terms

Blue Economy	Blue governance	Blue/wet ontologies
Blue Growth	Blue bond	Blue carbon
Blue wealth	Blue finance	Blue energy
Blue degrowth	Blue grabbing	Blue future(s)

B. Secondary search terms / synonyms

Governance

hybrid environmental governance

non-state actors

State

institutions

power

resistance

politics

knowledge

governmentality / environmentality

technologies of government

imaginary/ies

development trajectories

Sustainable development goals

Capitalism

neoliberalisation

financialisation

privatisation

marketisation / market-based

commodification

inscription

globalisation

investment

blended finance

Spatial

spatial planning

territory / territorialisation

spatial

space

space-times

scale

island

coast / coastal zone

ocean

Relational

materiality

hybridity

more-than-human

assemblage

relational

multiplicity

topology

discourse

futures

Environment

climate change

biodiversity

deep sea

Notes to Table 1. Primary and secondary terms were grouped, as indicated in the matrix below, to rationalise the number of searches. For example, Search 1: "Blue Economy" or "Blue Growth" or "Blue wealth" or "Blue degrowth" AND "hybrid environmental governance" or "non-state actors" or State or institution* or power or resistance or politics or knowledge or governmentality or environmentality or "technologies of government" or imaginar* or " development trajector*" or "Sustainable development goals"

A search was performed for each cell in the matrix following the same formula

	Secondary terms (grouped - see part B, above)				
Primary terms, below (grouped for efficiency)	**Governance**	**Capitalism**	**Spatial**	**Relational**	**Environment**
Blue Economy or Blue Growth or Blue wealth or Blue degrowth	By way of example this search string yielded 251 returns in Web of Science				
Blue governance or Blue future(s)					
blue finance or blue bond or blue grabbing					
blue/wet ontologies					
Blue carbon or Blue energy					

C. Critical geography terms used to filter search results

Assemblage	Justice
Governmentality	Materiality
Imaginaries	More-than-human

Searches were run on Scopus, Web of Science, and ProQuest databases in April/May 2020. Searches were restricted to articles published in peer reviewed journals, in the English language. A total of 635 articles were secured. Initial review showed that many made only perfunctory reference to the BE, claiming a relevance but engaging another topic, such as marine spatial planning or aquaculture. Only articles which meaningful engaged with BE as a concept were selected for analysis, numbering 231. Still a large number and very diverse in scope, a further filter was applied using relational terms from the critical geographies literature (Table 1, C). Articles containing any of these terms were included, totalling 28. Of these 17 were empirical cases (Table 2), which were analysed for this Review.

Texts were coded using NVivo v12 for iOS, using a high level framework of 6 codes representing the governmentality and place-space-times analytic frameworks. Thus: problematisation; utopias; regimes of practices / boundedness; openness; emergence. The coded data was then organised into mind maps in abbreviated form, grouped inductively into themes, then narrative summaries produced (see results section). These were then analysed inductively for common governmentality and spatial themes, which form the basis for the discussion.

Table 2 – Empirical cases analysed in this study

Authors	Title
Andriamahefazafy, M., & Kull, C. A. (2019).	Materializing the blue economy: tuna fisheries and the theory of access in the Western Indian Ocean.

Andriamahefazafy, M., Bailey, M., Sinan, H., & Kull, C. A. (2020).	The paradox of sustainable tuna fisheries in the Western Indian Ocean: between visions of blue economy and realities of accumulation.
Aschenbrenner, M., & Winder, G. M. (2019).	Planning for a sustainable marine future? Marine spatial planning in the German exclusive economic zone of the North Sea.
Bogadóttir, R. (2020).	Blue Growth and its discontents in the Faroe Islands: an island perspective on Blue (De)Growth, sustainability, and environmental justice.
Carver, R. (2019).	Resource sovereignty and accumulation in the blue economy: the case of seabed mining in Namibia.
Childs, J. (2020).	Performing `blue degrowth': critiquing seabed mining in Papua New Guinea through creative practice.
Childs, J. R., & Hicks, C. C. (2019).	Securing the blue: political ecologies of the blue economy in Africa.
Choi, Y. R. (2017).	The Blue Economy as governmentality and the making of new spatial rationalities.
Ertör-Akyazi, P. (2020).	Contesting growth in marine capture fisheries: the case of small-scale fishing cooperatives in Istanbul.
Karnad, D., & St. Martin, K. (2020).	Assembling marine spatial planning in the global south: International agencies and the fate of fishing communities in India. *Maritime Studies*.
Kaşdoğan, D. (2020).	Designing sustainability in blues: the limits of technospatial growth imaginaries.
Kyvelou, S. S., & Ierapetritis, D. (2019).	Discussing and analyzing "maritime cohesion" in MSP, to achieve sustainability in the marine realm.
Nogué-Algueró, B. (2020).	Growth in the docks: ports, metabolic flows and socio-environmental impacts.
Said, A., & MacMillan, D. (2020).	'Re-grabbing' marine resources: a blue degrowth agenda for the resurgence of small-scale fisheries in Malta.
Satizábal, P., Dressler, W. H., Fabinyi, M., & Pido, M. D. (2020).	Blue economy discourses and practices: reconfiguring ocean spaces in the Philippines.
Schutter, M. S., & Hicks, C. C. (2019).	Networking the Blue Economy in Seychelles: pioneers, resistance, and the power of influence.
Winder, G. M., & Le Heron, R. (2017).	Assembling a Blue Economy moment? Geographic engagement with globalizing biological-economic relations in multi-use marine environments.

3.0 Results

Coding the content of the selected papers according to the six analytic categories of the conceptual

frameworks (Governmentality: problematisation, presentation of utopias, regimes of practices;

Place-space-times: boundedness, openness, emergence) produced a minimum of 74 and up to 225

coded sections of text per category, generating rich data sets.

The intention in this analysis is to identify the full scope of each respective dimension of analysis

(rather than, for example, making comparison between the reviewed papers). Coded instances of

the 6 dimensions of analysis were transferred to a mind-map format to enable grouping of related

'types'. This enabled categorisation of the various governmental and spatial elements present in the

reviewed papers. In effect this approach attempts to reinterpret the results of these papers and

their interpretations by their authors, in a spatialised governmentality framing. The discussion in this

paper focusses on what can be learned from this collective analysis of diverse empirical cases.

This coded content is presented as two narratives, one for each analytical perspective. In most cases

both discourses and counter-discourses are described, but only as far as these are developed in the

data sources.

3.1 Governmentality perspective

a) Problematisation of current practices of government (Figure 1)

BE is characterised by **divergent problematisations** of government, created by different

stakeholders. Problematisation refers to the ways in which the need for government is framed, and

to the knowledges used to underpin that framing and to rationalise the proposed solution. In the

papers analysed these elements of problematisation were commonly bound up in the imaginaries

reported by the respective authors, in which the predominant characterisations or imaginaries of

the oceans as BE spaces to be governed are: oceans as an ecological system (Aschenbrenner and

Winder, 2019; Kaşdoğan, 2020); an ocean-based econo-mentality (Nogué-Algueró, 2020); oceans as

territory (Aschenbrenner and Winder, 2019; Kyvelou and Ierapetritis, 2019); oceans as a site

demanding social justice (e.g. Said and MacMillan, 2020; Childs, 2020; Ertör-Akyazi, 2020).
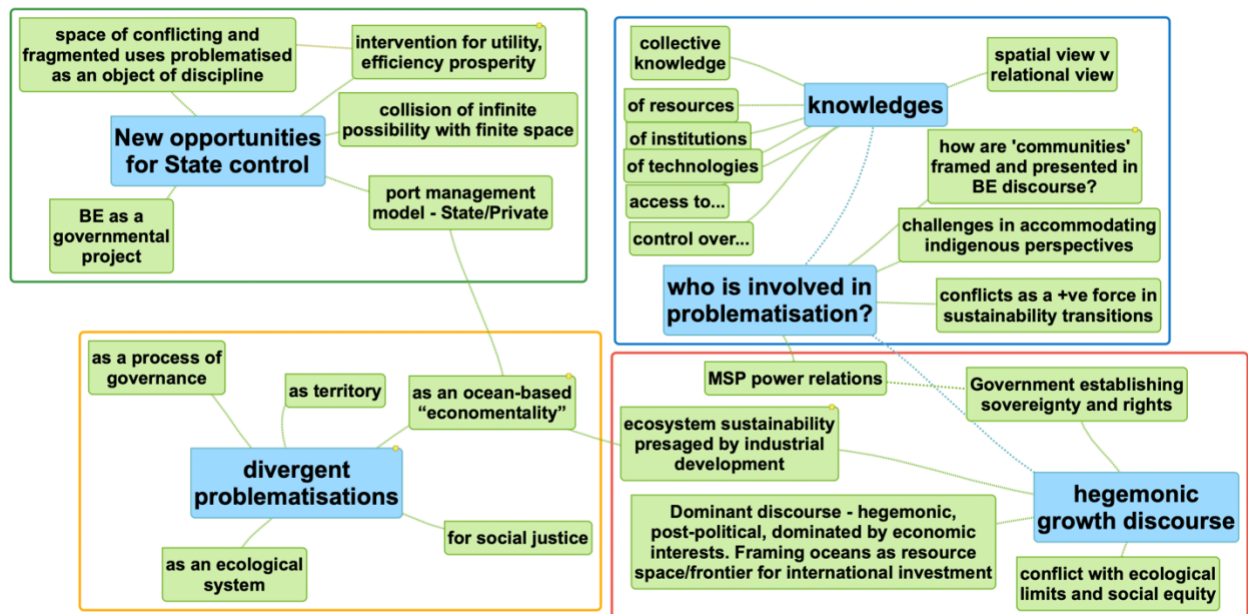
Figure 1. Mind map depicting thematic structure of 'Problematisation' node following textual

analysis. This provided the basis for the narrative description of results (see Appendix for full version

of mind maps)

As an **ecological system** the oceans attract divergent perspectives of their role in a BE. These range

from oceans as economically productive ecologies (Kaşdoğan, 2020), sometimes quantified or

monetised as natural capital (Satizábal et al, 2020), to the ocean as a dynamic, living, material,

relational, unbounded domain (e.g. Aschenbrenner and Winder, 2019) embodying not only

traditional, natural resource based livelihoods, but also indigenous spiritual 'one-world' cosmologies

(e.g. Childs, 2020) very different from more commercially driven BE perspectives. This is in contrast

to an **'econo-mentality'** (Nogué-Algueró, 2020) in which oceans are seen as spaces to be governed

for economic gain. Dominant, powerful (mainly commercial and governmental interests) characterise the oceans as an economic frontier, a resource space to be enclosed to aid exploitation, in similar terms to the 'green economy'. 'Blue Growth' becomes the overall goal of governance and oceans may be valued in units of GDP (Choi, 2017). State territories become a myriad of 'institutional investment projects' (Winder and Le Heron, 2017) promoting high growth sectors such as the bio-economy. Economism, prioritisation through an economic calculus, is promoted through technoscientific discourses (Kaşdoğan, 2020). BE features strongly as **territory to be governed**, reflecting the creation of Exclusive Economic Zones (EEZs) as 'sovereign territory' (actually sovereign *rights*; Carver, 2020) which created the possibility of State control and to which the BE is a response. Territorial governance features spatial zones of resource distribution (Aschenbrenner and Winder, 2019) or functional uses, enclosure as property, and multi-use potentials (Kyvelou and Ierapetritis, 2019).

A **hegemonic growth discourse** is widely evident, post-political in nature and dominated by economic interests, framing the oceans as a resource space and frontier for international investment, combined with the new opportunities for state control afforded by the creation of EEZs. Thus, BE is seen as a 'governmental project' (Choi, 2017) - the sea is problematised as a space of conflicting and fragmented uses in need of management. New governable spaces are opened up and new ways of governing rationalised, the oceans perceived as "underdeveloped frontier spaces through which infinite possibilities of "better" uses are imagined, institutionalized, and invested". Such rationales have led to the favouring of industrial fisheries over artisanal and small-scale fisheries (Said and MacMillan, 2020), and the institutionalisation of the sea as a development space leading to more intensive and extractive uses (e.g. Choi, 2017; Nogué-Algueró, 2020), spatially dispersed according to natural features (e.g. "Estuaries with deep water channels, an uncommon topographic feature with the capacity for accommodating containerships, are developed as industrial container ports" Choi, 2017:39) . The State's role is to optimise resource use and in doing

so is acting 'responsibly' on behalf of citizens, as highlighted by Childs (2020:118): "As the former

Minister for Mining who oversaw the granting of the lease, Byron Chan, stated, the 'PNG

government is committed to ensuring that our mineral wealth is harnessed in the most optimal and

responsible way'". Nevertheless, many instances of conflict are detailed in which this hegemonic

growth discourse is in conflict with ecological limits ("..a sustainability narrative, in which the idea of

fishing within ecological limits is present within government policy, public discourse, and practices,

is, however, in contradiction with the realities of accumulation and growth that prevail…"

Andriamahefazafy et al. 2020:75), is poorly in tune with the materiality of the oceans ("..the

discourses of Blue Bioeconomy and Blue Growth and their underlying ideologies combine to create a

landscape with expanding production facilities and expanding infrastructure, powered and fuelled

through increasing resource extraction and use. Rather than leading to a reduction in energy and

material throughput, these ideologies are maintaining and forging new resource-intensive

dependency paths for Faroese society." Bogadóttir, 2020:112) or at odds with traditional imaginaries

and so creating social *in*justice. Concerns regarding appropriation of resources from traditional users

by State and corporate interests lead to calls for social justice, for fairness and for equity (e.g. Said

and MacMillan, 2020).

In summary, the principle rationality of government for blue economy development that is apparent

in the papers reviewed is a need for economic growth, based on the natural wealth of the oceans

and rationalisation of activities through State control.

b) Invention of Utopias to be pursued (Figure 2)

In Dean's framework, utopias represent the belief that government can be effective and achieve

desired goals. How are these beliefs and goals presented to governed subjects? Again, imaginaries

and discourses (as with Problematisations) are powerful vehicles for enrolling support for particular

approaches or courses of action towards specific aims. The BE is suffused with conflicting

imaginaries - economic, sovereign and community imaginaries featuring strongly - which are underpinned by divergent understandings of sustainability.

Figure 2. Mind map depicting thematic structure of 'Creation of utopias' node following textual analysis. This provided the basis for the narrative description of results (see Appendix for full version of mind maps)

The **economic imaginary**, not surprisingly for the BE, appears as pre-eminent. Blue Growth is its overarching discourse, although there is also recognition that economic development should deliver environmental conservation within the BE paradigm. Blue Growth attempts to re-frame economy as economic practices that reflect ecological conditions and harbours a number of discourses. The BE is seen as a container full of unexploited wealth (Kaşdoğan, 2020). It targets under-utilised resources (e.g. Blue Bio-economy), but exhibits little recognition of biophysical limits to growth and thus leads to ecological distribution conflicts (Bogadóttir, 2020). Techno-spatial growth imaginaries promise sustainable production through environmental remediation, but may create license for continued waste production (Kaşdoğan, 2020).

The **Sovereign imaginary** revolves around the creation and control of territory. UNCLOS allows the creation of new marine territory (EEZs), codified in law, and representing new economic frontiers. However, such frontier and development imaginaries are often misconceived (modelled on landed imaginaries) and at odds with material and spatial reality, leading to failed utopias. In Namibia, Carver (2019) highlights the struggles between traditional fishing and emergent mining interests as the State seeks to exert its sovereignty over its maritime domain, ostensibly for the benefit of all Namibians. Sovereign imaginaries are also less than they seem, due to the influence of non-State actors, such as Development Finance Institutions and private corporations, for example, able to deploy resources to gain influence and control (e.g. Karnad and St Martin, 2019; Aschenbrenner and Winder, 2019) not only of agendas but of space itself.

Community imaginaries are often driven by sustainable use of resources, resist the economisation of life, and recognise community wellbeing above economic efficiency. They embody more equitable wealth distribution, promoting 're-grabbing' for parallel, diverse economies (Said and MacMillan, 2020) and communal allocation and management of resources with equitable market access. The lack of such imaginaries leads to decline in small scale fisheries and other traditional sectors brought on by commodification and industrialisation. Community imaginaries should resist the tropes of economy, and recognise "the pluralities of conception, multiple uses, and differentiated value bases and their accompanying knowledges and practices at work in marine areas" (Winder and le Heron, 2017:18).

c) Regimes of practices (Figure 3)

Utopian visions and the pursuit of open potentials of the BE results in the imposition of regimes of practices as the ultimate manifestation of particular rationalities of government. In the cases analysed we see diverse regimes of practices deployed to operationalise the BE. The role of the State

is central, though not universal. Technological and market practices exist alongside national licensing systems and marine spatial planning practices.
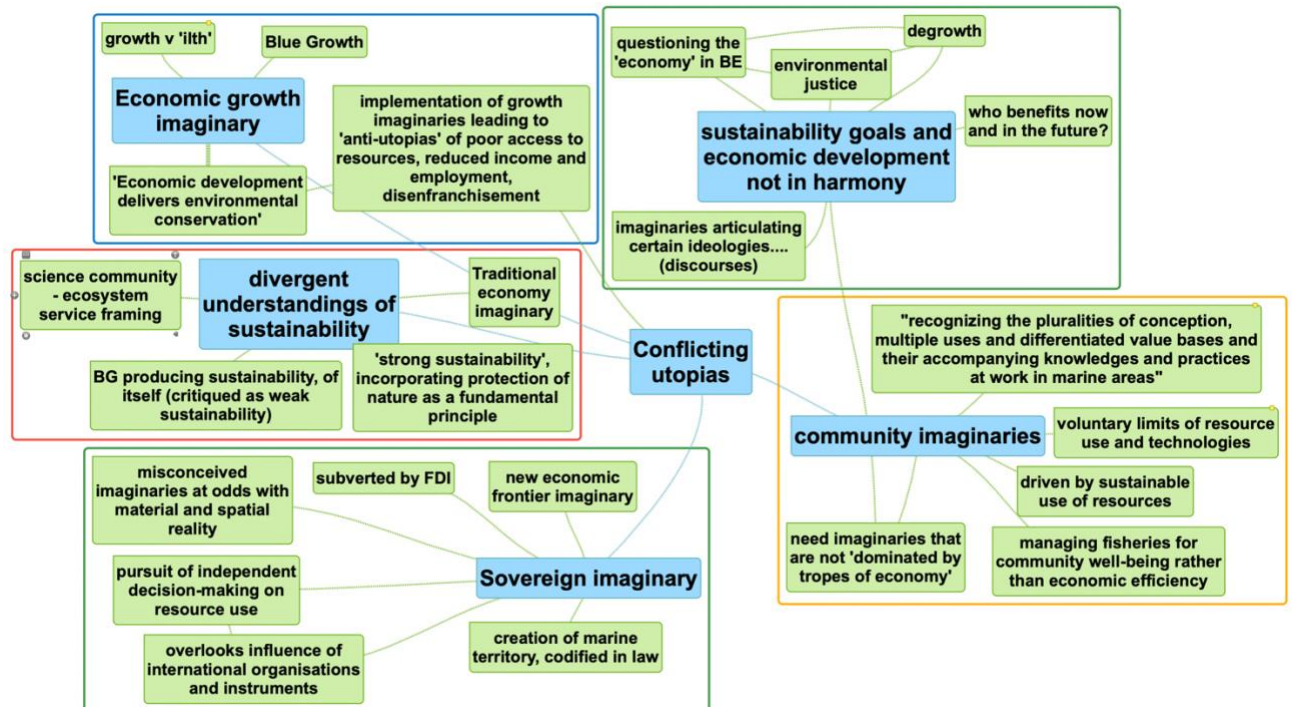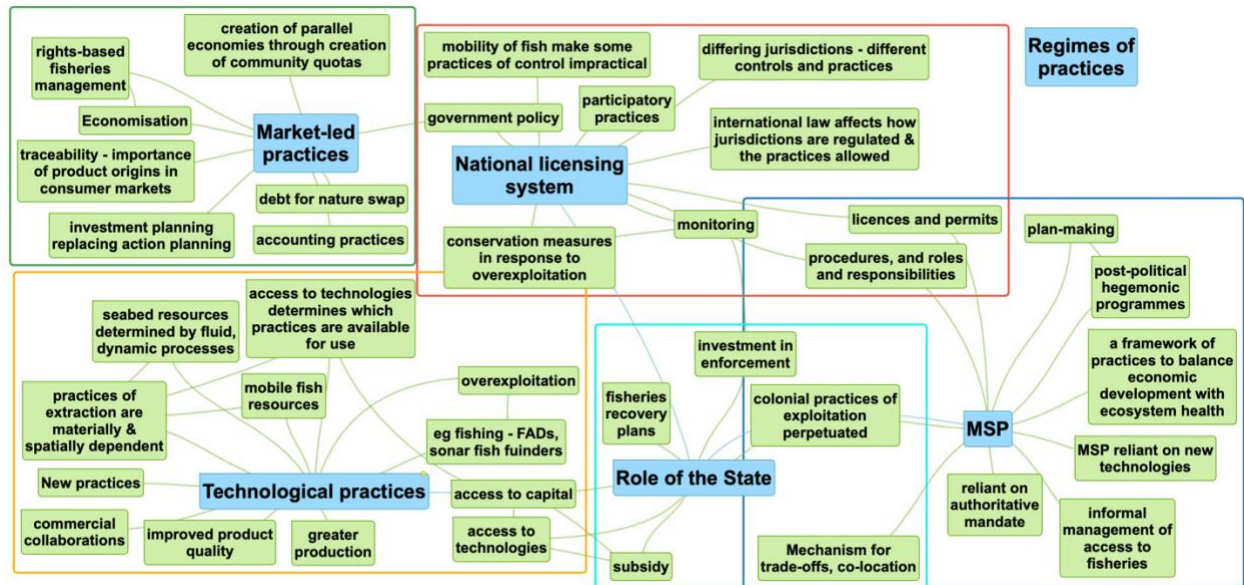

Figure 3. Mind map depicting thematic structure of 'Regimes of practices' node following textual analysis. This provided the basis for the narrative description of results (see Appendix for full version of mind maps)

National licencing systems control access to resources and so operationalise the governance regime. Licences and permits govern use of marine space (e.g. fish farms in the Faroes. Bogadóttir, 2020) and aim to optimise spatial use and sustainability, usually supported by assessment methodologies (EIA, Livelihood Impact Assessment etc. Winder and Le Heron, 2017). Access agreements may give rights to third country parties (Andriamahefazafy and Kull, 2019) generating resource rents for the state (Carver, 2019). Differing jurisdictions will use different controls and practices, which may be historically contingent. These regimes are often fragmented (Carver, 2019), being designed *ad hoc* in response to individual needs. International frameworks and standards can superimpose global (Western) practices over State systems (e.g. Karnad and St Martin, 2020), which are distant from local politics and give rise to alternative (Non-State) dispute resolution mechanisms (e.g. International Finance Corporation standards for project implementation impose rigorous

evidence requirements which marginalise local knowledge and effectively exclude local resource users). Colonial practices of exploitation can be perpetuated through adoption of historically contingent practices (e.g. mining in Namibia: " While the state has been positioned as an "abstract landlord" of the now independent Namibian territory, there remain substantive similarities between colonial and contemporaneous relations regarding issues of "sovereignty, territory and mineral resources"", Carver, 2019:396).

Marine spatial planning (MSP) is a relatively new regime of practices for spatial plan making and resource allocation through licences and permits etc, which is promoted as an essential planning process for the BE. MSP aims to balance economic development with ecosystem health through an assemblage of practices, data layers, legal rulings and so on (Karnad and St Martin, 2020). However, it has been critiqued as a post-political process (e.g. Aschenbrunner and Winder, 2019), foreclosing debate through various practices employed which reflect predetermined objectives, and is not the neutral apparatus it may be claimed to be.

Technological practices can support sustainability (e.g. improve product quality) but also lead to overexploitation of resources. This is exacerbated by access to capital which enables the introduction of new technologies and greater production (e.g. fishing in Malta. Said and MacMillan, 2020). Practices of mineral extraction are spatially and materially dependent, seabed resources being determined by fluid, dynamic processes of sedimentation or volcanic activity for example (Carver, 2019). Their accessibility is dependent on new technologies for seabed mining and new governmental practices for their regulation.

Market-led practices are enabled by the State, through the establishment of institutions to support the economisation of nature - valuing natural capital, blueprinting new business models, creating new financial instruments (e.g. blue bonds) etc (Satizábal et al, 2020). Rights based management is

fundamental to market led systems, aiming to incentivise long-term stewardship of resources. Introduction of individual transferable fisheries quotas (ITQs) in fisheries alter power relations, leading to inter-communal conflicts and shifts from owner operators to capitalised corporate ownership with little tie to local traditions or labour norms (e.g. Malta. Said and MacMillan, 2020), invoking calls for the creation of parallel economies that offer protection to community traditions and livelihoods. Some market mechanisms can be deployed to incentivise conservation, such as labelling and traceability of products to bring consumer pressure to bear on managers and operators, or conditional financing specifying the creation of MPAs (e.g. Schutter and Hicks, 2019).

Spatiality perspective

d) Boundedness (Figure 4)

The concept of boundedness captures the difference between things - to be bounded is to be different. This manifests in many material and social relations, for example open oceans versus inshore waters, development zones versus marine protected areas, collectives of offshore wind turbines versus shoals of tuna.
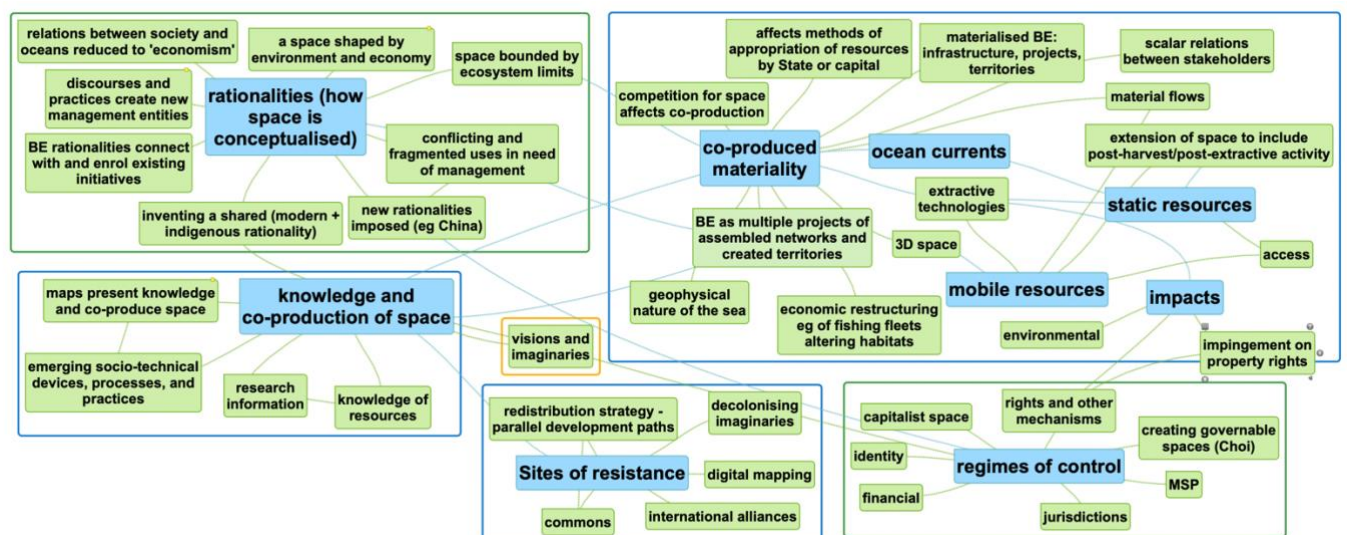
Figure 4. Mind map depicting thematic structure of 'Boundedness' node following textual analysis. This provided the basis for the narrative description of results (see Appendix for full version of mind maps)

As an analytical lens boundedness emphasises **material and spatial relations and their co-production** through social relations. Ocean space is produced through a coming together of many factors in unique constellations of relations. Analysed cases emphasised the geophysical nature of the sea (e.g. Carver, 2019), its three-dimensional quality and fluidity, the mobility or fixity of resources, and material flows (e.g. Nogué-Algueró, 2020; Bogadóttir, 2020) as fundamental in shaping space. These factors affect methods of appropriation of resources by the State or private actors, and the materialised forms of the BE in the contexts of infrastructure, projects and territories. Competition for space between users, technologies for resource extraction, and relations between marine and terrestrial resources and activities have both spatial and relational effects to produce space. Economic relations also play a role in co-producing space - financial instruments and investment of capital creating pressures, trends and opportunities leading to change. Economic restructuring of fishing fleets for example produces different effects on the seabed or fish stocks (e.g. Said and MacMillan, 2020), altering the nature of ocean spaces.

State control is effected through laws and operational institutions (Ministries, Agencies) applying to bounded jurisdictions, which may be operationalised as spatial zones or sectoral (e.g. shipping, mining) regimes of control. These typically apply to types of resources and specify types of uses and apply certain rationalities of control. Typically, such jurisdictions are multiple in marine space, especially in coastal areas where marine and terrestrial jurisdictions overlap and in territorial waters (12 nautical mile zone, as distinct from 200 mile EEZ) where sovereign powers exist. Discourses and practices create new management entities (Satizábal et al, 2020):

- Territorialisation encloses and controls spaces
- Discourses perform a strategic (re)ordering, regulation, and control over resources, assigning meanings, values, and actions upon others
- Complex marine spaces are rendered into legible, manageable, and bounded systems enabling economic opportunities

- Each territory materially reflects financial flows, property rights, and other boundary demarcations.

Thus, new territories are established, such as MPAs or mineral concessions, with associated market opportunities (e.g. ecotourism in Malta. Said and MacMillan, 2020; phosphorus mining in Namibia. Carver, 2019). New abstract entities are produced to develop new markets for non-extractive goods such as carbon credits, and resources which cannot be economically valued and enclosed may be excluded or overlooked (Satizábal et al, 2020:215). Thus, "The Philippine blue economy only denotes elements that are economically valued and can be managed through territorial enclosures.". Jurisdictions produce rights which both constrain and create opportunity. Rights are mostly bounded by relation to jurisdictions or use zones (e.g. Aschenbrenner and Winder, 2019; Bogadóttir, 2020; Satizábal et al, 2020), the creation of which contributes to the configuration of oceans as development frontiers. Property and licences for use generate rents and direct revenues from extraction (fish, minerals etc) and potential for political conflict (e.g. Namibian mining concessions. Carver, 2019). Powerful interests (with access to capital) seek to influence policy agendas regarding the creation and nature of investable spaces (e.g. Aschenbrenner and Winder, 2019).

Introduction of new socio-technical devices and processes (e.g. grid-based locational technologies - GPS and digital mapping) creates new ways to exert power over space through **deployment of knowledge.** They influence how ocean resources and space are known, allocated and utilised. They enable the bounding of territory at sea and the allocation of property in ways not before possible. For example, in Indian waters practices of environmental impact assessment for internationally supported oil exploration created zones of inclusion/exclusion based on types of data (published scientific assessments) that were highly restricted by institutional standards, thereby excluding traditional knowledges (Karnad and St Martin, 2020). Such spatial zones (e.g. arising from MSP-like processes) can obscure a lack of data and yet present an appearance of complete knowledge, legitimating policies based on scant evidence. Counter movements, in response to State and

corporate-led resource mapping and enclosure, aim to re-present traditional knowledge to influence governance - an engagement in ontological politics. Traditional governance mechanisms deploy different rationalities and measures regarding spatial understanding and bounding of territory, adapting to the fluidity of the oceans and limits on its knowability through rudimentary technologies (e.g. Childs, 2020).

Sites of resistance are evident, and to be expected given competition for uses and the imposition of new regimes and the changes they bring about. The less powerful are often marginalised coastal dwellers, and traditional industries which are not capitalised and driven by a growth ethic: new regimes may replace traditional rights to the commons (e.g. Said and MacMillan, 2020) (including harbours and waterfronts: Nogué-Algueró, 2020; Bogadóttir, 2020), and thus affect the exploitation patterns of resources and their whole spatial context. Dispossession of territorial or resource rights gives impetus to the formation of international alliances of resistance (small scale fishers versus industrial fishing. Ertör-Akyazi, 2020), challenges to dominant imaginaries (and calls to decolonise them. Childs, 2020), and to alternative strategies (for resource redistribution or 'regrabbing', and 'communitisation' instead of privatisation; Said and MacMillan, 2020) which strengthen capacities and legitimise (and protect) other (non-capitalist) forms of governance. Fundamental conflicts exist with indigenous spiritual imaginaries, or cosmologies in which life, in all its forms, are rationalised by a logic that is incommensurable with new economic frontier imaginaries. These imaginaries challenge the ontological singularity of the BE (Childs, 2020) and its characterisation of the ocean as divisible and enclosable space.

e) Openness (Figure 5)

Openness foregrounds potentials and their realisation, and the creation of new economic frontiers for the BE. However, potentials also engender struggles over rights of access and the creation of new sites and spaces for political contestation.

struggles over rights of access

- environmental justice: human rights; historic rights; distribution of risks
- state-backed third country access rights: unfairness; rest-seeking; appropriation
- new tools and technologies create new sites for struggle
- unequal power relations: access to capital; technologies

new spaces of political contestation

- struggles over knowledge, data, and how it is used and interpreted
- Standards (eg for impact assessment, use of data) constrain potentials
- political processes
- sovereign v traditional rights in EEZs
- making the space-time configurations of new politics and possibilities
- waterfront as an urban 'commons'
- changing power relations through introduction of MSP
- environmental and social impacts
- challenging principles of development

BE creating new economic frontiers

- degrowth discourse
- growth discourses: untapped wilderness; undeveloped frontier...
- codification of the maritime domain (to create investment potential)
- a spatial intervention that rearranges people and resources to avoid waste and achieve their economic use
- risks: coastal livelihoods; technocratic processes inaccessible; inequalities increase

managing potentialities of limited resources

- MSP resource allocation policies
- managing unequal power relations
- transparent engagement leads to negotiated arrangements
- Blue Growth policies
- Blue Economy: vehicle to link economy to ecology and EBM developments.
- redistribution policies ('re-grabbing') could open potentials for parallel, diverse, inclusive economies

Figure 5. Mind map depicting thematic structure of 'Openness' node following textual analysis. This provided the basis for the narrative description of results (see Appendix for full version of mind maps)

BE is a spatial intervention that rearranges people and resources to avoid waste and achieve their economic use (Choi, 2017), for example by codification of the maritime domain to create investment potential. In such ways **new economic frontiers of opportunity** are created. Such codification is accompanied by growth discourses, for example of untapped wilderness, or BE as underdeveloped frontier spaces (e.g. Childs and Hicks, 2019) through which infinite possibilities of "better" uses are imagined, institutionalized, and invested. BE is necessarily a governmental project through spatial interventions, opening up new "governable spaces" and rationalizing particular ways of governing (Choi, 2017).

But all this potential comes with **risks**. Livelihoods of coastal dwellers are often overlooked (e.g. Satizábal et al, 2020), closing or constraining potentials, and technocratic planning mechanisms often marginalise those without the capacities to engage (e.g. Aschenbrenner and Winder, 2019). Growth can lead to 'ilth' (a term coined as the counterpoint to wealth - Nogué-Algueró, 2020), reducing employment (resulting from technological advance), grabbing land for infrastructure, and

pollution (e.g. from shipping) (Nogué-Algueró, 2020). Struggles over rights of access to resources are the result of unequal power relations, such as access to capital providing access to technologies of extraction. Other new technologies such as GIS create new sites of struggle. Third country concessions (e.g. fishing access agreements, mining rights) are often perceived as unfair and leading to appropriation of wealth offshore (Andriamahefazafy et al 2020). State-driven priorities of rent-seeking (e.g. tax revenues) are not always seen as serving the interests of the public (Carver, 2019), being at odds with livelihood-driven socio-cultural imaginaries and discourses of historical, colonial, over-exploitation. Resulting environmental justice struggles stress fundamental human rights (access to resources), and 'conviviality' (rights of non-humans to exist/co-exist) (Childs, 2020).

These tensions open diverse **new spaces of political contestation**: challenging the principles of development (e.g. 'slow violence'; alternative cosmologies. Childs, 2020) and 'making the space-time configurations of new politics and possibilities' (Winder and Le Heron, 2017:21); reclaiming coastal and ocean spaces for food security (e.g. Ertör-Akyazi, 2020) and cultural heritage (e.g. Said and MacMillan, 2020); making bio-economic relations differently (Kaşdoğan, 2020); imagining sustainability 'otherwise', challenging growth centred norms; breaking out of the bounds of economism and rethinking more-than-human relations beyond utilitarian logic (Kaşdoğan, 2020); recognising that sites where neoliberalization of (marine) natures exist, are also sites of intervention and divergence (Karnad and St Martin, 2020); de-growth transition opening opportunities for the rehabilitative appropriation of previously destructive technologies (Nogué-Algueró, 2020); re-grabbing resources as commons (e.g. waterfronts, Nogué-Algueró, 2020; fish quota shares, Said and MacMillan, 2020) and identifying labour chokepoints as leverage in political struggle regarding environmental access (e.g. Childs, 2020; Nogué-Algueró, 2020).

f) Emergence (Figure 6)

Emergence encompasses those *things* and *effects* arising from the implementation of regimes of practices, from efforts to realise potentialities, or from struggles over what political choices should be made over them.

The reviewed articles demonstrate that BE development leads to **growth-driven exploitation**, with unequal rewards. A BE governmentality limits livelihoods of traditional resource users by constraining rights to resources and encouraging new uses to proliferate in the same areas (small scale fisheries versus tourism activities such as diving. Said and MacMillan, 2020). Capitalisation of industries tends in practice towards labour efficiencies rather than additional jobs, and land grabs for infrastructure. For example, port systems become part of a globalised logistics system assemblage, increasingly de-linked from local economies (to which benefit formerly accrued) creating new forms of enclosure and marginalisation (e.g. Nogué-Algueró, 2020). In this way local infrastructures and territories can become enrolled in geopolitical projects, such as China's belt and road initiative, corporate supply chains, or multinational logistics corporations.
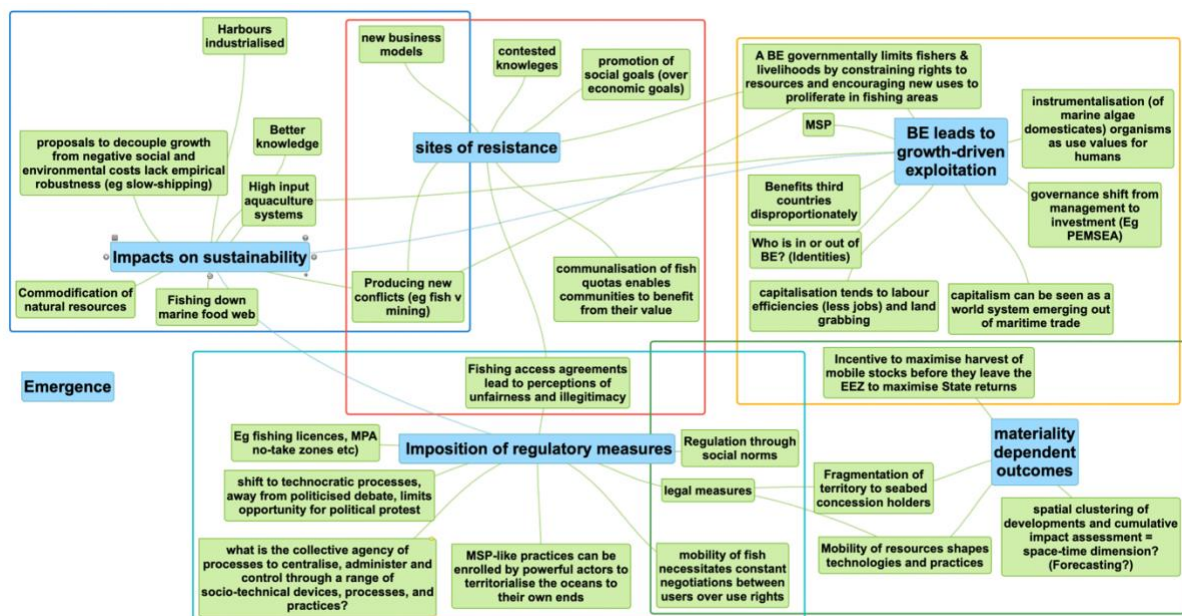

Figure 6. Mind map depicting thematic structure of 'Emergence' node following textual analysis. This provided the basis for the narrative description of results (see Appendix for full version of mind maps)

Outcomes are **materially and spatially dependent**, and often contested through emerging sites of struggle. For example, mobility of fish resources shapes the technologies and practices deployed in fisheries, such as the use of FADs (fish attracting devices) in tuna fisheries (Andriamahefazafy et al 2020); territorial limits (e.g. EEZs) can incentivise a race to harvest migratory fish stocks before they leave territories to maximise State returns (Andriamahefazafy et al 2020); spatial clustering of developments leads to demarcation and ranking of areas to be managed differently (e.g. Kyvelou and Ierapetritis, 2019); needs for shore-based or seabed infrastructure, such as ports and processing facilities, or pipelines are materially driven and have material and spatial consequences (e.g. dispossession of waterfront commons for private economic activity. Nogué-Algueró, 2020).

Imposition of regulatory measures occur as part of a reconfiguring of governance, including moves from management planning to investment planning (Satizabal et al, 2020), anticipating use of business investment projects to address management failings, governance becoming a PPP (public-private partnership). A shift to technocratic processes such as MSP, away from politicised debate, limits opportunity for political protest. Technocratic measures can be enrolled by powerful actors to territorialise the oceans to their own ends. They reformat how objects are understood and understood relative to each other, they make objects visible/invisible, leading to marine economies and communities being reformatted by practices, protocols, data initiatives and technical devices (Karnad and St Martin, 2020).

Regulatory practices generate perceptions of unfairness and illegitimacy as they inevitably favour one actor over another, and so lead to **sites of resistance**. This especially applies to Fishing Access Agreements, having implications for employment and labour mobility, food security, supply/value chains, and ultimately to opposition to industrial fisheries (Andriamahefazafy, 2020), but also mining concessions which may lead to one sector being favoured over another (e.g. mining v fishing, Namibia. Carver, 2019). Legal mechanisms can lead to fragmentation of territory, between different

regimes or through multiple seabed concessions for example (Carver, 2019). By contrast, traditional

systems of regulation, relying on social norms, may be more attuned to their natural environment,

such as the mobility of fish resources and the consequent need for constant (re)negotiation between

users over informal territorial rights (e.g. Karnad and St Martin; Ertör-Akyazi, 2020).

New practices, enabled by new regulatory regimes, such as high input aquaculture systems, can

have profound **impacts on sustainability**, externalising ecological feedbacks and appropriating

ocean space (Bogadóttir, 2020). Traditional infrastructures such as harbours can become

appropriated by industrial uses, through privatisation and/or construction of specialist

infrastructure, both restricting access and causing nuisance and pollution to traditional users (e.g.

Nogué-Algueró, 2020).

Thus new conflicts and new sites of resistance emerge. Conflicts between the old and the new, such

as fishing versus mining, spatial conflicts (in 3 dimensions) of difficult-to-separate activities, a

favouring of some sectors over others, and political struggles over legitimacy and appropriation of

rights.

4.0 Discussion

In this analysis I consider what role the material and spatial elements of the oceans play in BE

governance through a spatialised analysis of governmentality, aiming to understand how BE

governmentality is manifested in materially and ecologically different places. Given that

management practices are 'located' (Rutherford, 2007) I pose the question "does 'place' matter?"

That is, does the heterogeneous materiality and spatiality of oceans, commonly experienced as

difference between places (or locales), either demand different practices of government or,

conversely, mediate the degree to which governance relations produce and shape the spaces of the blue economy?

The conceptual frameworks, together, allow us to peer deeply into the Blue Economy, seeing it as a rationality for the governance of the oceans and as a consequent constellation of social and material relations that create different places. We can see how the BE is a space of multiple potentials, and of political struggle over how these are prioritised and packaged as visions and goals, especially regarding the relative priorities between environment and economy. We can examine what practices are deployed (strategies, policies, technologies, devices, social norms) in the pursuit of those goals, and what emerges as a result: how place and space is shaped by them, what conducts are encouraged and reinforced, what identities come into being or are destroyed, and what inequalities and struggles may or may not result. We see, in effect, how the BE as enacted shapes the present and the future of the world's oceans and the societies connected with them.

The image of the BE brought to the fore by this analysis of empirical cases is one of contested regimes of control and multiple (competing) imaginaries, or utopias. At the same time, it is a space of potential (Openness). How the conflicts between imaginaries and regimes of control and practice are resolved opens or constrains potential. Open potential is only available by embracing multiplicity, i.e. acknowledging competing claims and seeking new utopias from which new, widely acceptable regimes of control and practice emerge. However, the eternal tension in the BE paradigm is that growth drives expanding infrastructure and resource extraction, and is at odds with delivering systemic environmental conservation. We see BE policy privileging economy over environment - the oceans are first created as development space before consideration of environmental conservation priorities. MSP processes presuppose development and are growth-led, MSP being regarded as an economic development tool - creating zones of use, enclosure and access rights to support market development. The resource-dependent, growth-based development imaginary promises social

benefits (e.g. employment) but instead accelerates social metabolism (Bogadóttir, 2020;

Nogué-Algueró, 2020), leading to negative social and environmental externalities. BE discourses and

practices create new management entities, materially affecting financial flows, property rights, and

other boundary demarcations. Failed utopias, of poor access to resources, reduced income and

employment, disenfranchisement, and community fractures, result from the appropriation of

material resources and space by powerful interests.

Looking at the spatial dimensions of governance we see BE as a socio-material network of diverse

relations and development potentials strongly influenced by the material properties of natural

resources. Massey (2005) called for the recognition, in development contexts, of a multiplicity of

potentialities of space. Using place-space-time theory we can delve deeper into these spatial

relations than Massey was able, by recognising Openness as potential and Emergence as outcomes.

The potential of the BE is constrained by post-political processes in which fundamental assumptions

about ocean governance and development priorities remain unquestioned, and in which alternative

imaginaries and discourses are excluded. In this analysis potentialities fall into three categories: new

economic frontiers, managing potentials of limited resources, and repressed potential revealed by

political struggle. Through discourses of Blue Growth, the BE favours high growth sectors, such as

energy, minerals, bio-economy, requiring new material, spatial and institutional infrastructures.

Potential for growth and investment is created through discourses that "[re-story] economy as

economic practices that always are embedded in ecological conditions" (Winder and Le Heron,

2017:17) opening up new spaces for capital (e.g. 'Blue Carbon', 'Blue Energy'), or which foreground

unexploited wealth (Nogué-Algueró, 2020) and promote valuation of environments and natural

capital in monetary terms (e.g. Choi, 2017; Satizábal et al, 2020). Managing the potentialities of

multiple resources occupying one ocean space demands trade-offs, these underpinned by decision-

making principles (such as ecosystem based management, Winder and Le Heron 2017) or

mechanisms such as MSP. However, questions regarding legitimacy and whose interests are being

served (Aschenbrenner and Winder, 2020) by these devices, hint at their failings and prompt the questioning of the adequacy of the practical policy tools at our disposal to manage the tensions between environment and economy that lie at the core of the BE paradigm (Winder and Le Heron, 2017).

4.1 The importance of 'place'

I posed the question "Does place matter?" and do different places demand different practices of government? Campbell (2018:23) succinctly defines place as "physical spaces that people naturalize through patterns, behaviour and communications", reflecting Lefebvre's analysis of the complexities of place as socially produced, elucidated through his trialectic of spatial perspectives (perceived space, conceived space, and spaces of representation) in which all three modes are in an "ongoing state of mutual reproduction and transformation" (see Whaley, 2018:23-24). Thus, place, being relational and co-produced, is multiple (Massey, 2005) and individual places overlap in their locatedness and orientation (Malpas, 2012). When considering BE and the exploitation of marine resources, whether static or mobile, we need to understand 'place', therefore, from multiple perspectives in order to first define *places of concern* before we can allocate, use and conserve resources equitably. That is, we need to understand the interplay between the materiality of space (and its consequent spatial relations) and uses, users, technologies, practices, regimes of governance etc, and recognize that the resulting 'place', being co-produced, is unique to each stakeholder and each BE sector. This calls for an inclusive, political process to enable worldviews to be shared and understood and choices to be articulated and agreed positions negotiated. Perhaps the most telling example in this study is that of indigenous islander's views on seabed mining in Papua New Guinea (Childs, 2020), who regard "the sea and its life is part of one thing. It is part of us" representing a relational view of the earth which is inclusive of the sea and in which seabed mineral extraction is regarded as impacting all life. Other examples are also evident - Faroe Islands (Bogadóttir, 2020);

Barcelona (Nogué-Algueró, 2020); Malta (Said, and MacMillan, 2020) - in which conflicts regarding the same *location* are in fact about different *places*. Because place reflects a complex amalgam of materiality, cultural perspectives and lived experience (i.e. Lefebvre's trialectic), it is *place* that is important rather than physical *location* in the context of spatial planning and other forms of governance over physically located material resources. A governmentality that does not recognize the material and spatial heterogeneity of the world, represented as place, will exist in conflict with opposing natural and social forces. We see this in the transgression of territorial boundaries by migratory tuna, whose mobility resists State-centred controls (Andriamahefazafy and Kull, 2019). In response, new institutions must be formed (such as the Indian Ocean Tuna Commission, a multi-State partnership governed by international Agreement) to develop more collaborative rationalities of government for tuna resources. We see it also in the effect of policies to intensify aquaculture and the inability of coastal ecosystems in which the resultant fish farms are located to assimilate the material inputs to these farming systems (high protein fish feeds) leading to 'ecological distribution conflicts' (Bogadóttir, 2020) which challenge the prevailing growth-centred governmentality. Thus, different places do demand differing forms of governance, enacted through different practices and rationalities (collaborative or ecologically-centred in these two examples).

I turn next to the question of the degree to which governance relations produce and shape the spaces of the blue economy. The stated intent of the BE paradigm is to promote sustainable development in the oceans to meet the development needs of society whilst also protecting the natural heritage of the oceans for future generations (UNDESA, 2014). However, it is apparent from the cases analysed here that the BE paradigm has been far more successful *in practice* in reformatting the ocean environment as developable space, which is having and will have far reaching consequences for ocean ecosystems and those people dependent on them, especially traditional coastal dwellers. In the Faroes coastal commons are being transformed: "Whereas harbors were previously integral parts of local communities, the past century of blue growth has

transformed them into industrial areas. Harbors have been enclosed from the public, and most recently, harbor areas are being privatized." (Bogadottir 2020:112). In the Philippines, "new partnerships between public and private sector actors forge networks, boundaries, and management practices………producing abstract knowledge and practices (financing ideas, technologies, territories) that reorder and rebrand oceans as territories with economic potential." (Satizábal et al. 2020:18). In Malta, economic restructuring of fishing fleets in favour of industrial-scale fishing introduced new fishing practices and technologies, altering seabed habitats (Said and MacMillan, 2020) to produce new ocean spaces.

In summary, we can identify a widespread BE governmentality driven by an ideology of growth, an 'economentality'[12], framing oceans as a resource frontier for economic growth and international investment. Anthropogenic imaginaries render living and non-living resources in terms of economic value through techno-spatial growth imaginaries, altering perceptions of what matters (e.g. economic value over intrinsic or cultural values) and changing power relations. This governmentality privileges deployment of new technologies, market incentives and technocratic regulation with the aim of boosting *global* commoditised economic growth. This in turn fosters policies of expanding infrastructure and resource extraction, characterised by institutions designed to create investable subjects, such as seabed mining concessions or fish quotas. Marine space is governed through processes of discursive and material territorialization using new accounting practices and geolocation technologies, for example, to enclose space and create investable units of resource. Existing and new sectors and initiatives are enrolled into a growth-fuelled imaginary, reducing relations between society and oceans to an economic calculus, overturning or appropriating historic regimes, and creating new sites of conflict through deployment of practices that are out of tune with the materiality of oceans or the complexity of coastal livelihoods. The practical manifestations of

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[12] Mitchel (2014) defined an econometrality as a form of governmentality that represented "new forms of political reason and calculative practice emerging in the mid-twentieth century [which] formed the economy as their object and introduced the future into government."

these rationalities is that ocean resources are physically removed (mined, harvested, extracted) from ocean spaces, not only having the immediate effect of removing those elements from the ocean - there are longer term consequences as well, arising from modified ecosystem dynamics and their effects on the material and spatial nature of the oceans themselves.

5.0 Conclusion

In this analysis of 17 empirical cases of the BE as practiced we can see a range of common trends amounting to a coherent discourse. Most important amongst them, I would argue, concern 1) the relationship between the BE and sustainable development, 2) the marketisation of natural resources and the corporatisation of the means of their exploitation, and 3) poor levels of engagement with the multiple potentialities of the BE, which I expand upon in the following three paragraphs.

Using the analytical frameworks of governmentality and place-space-times together, reveals a complex spatialised governmentality emerging through the articulation and pursuit of the blue economy as a policy goal. It is revealed as something other than a manifestation of sustainable development - an *economentality*, privileging economic growth before environmental protection, the latter being predicated on ocean space first being rendered as developable space through territorialisation and enclosure. New knowledges generated through State-sponsored survey describe and format ocean space anew, as a container of enumerated resources, untapped but representing future sovereign wealth to be exploited for the good of all. New technologies enable ocean resources to be geolocated in bounded units, to demarcate new territories, to enclose space through the introduction of new regimes of exclusion/inclusion, leading to its allocation amongst competing uses and users and making it visible to capital.

Corporatisation of once-traditionally managed resources and capacities, through the introduction of such devices as ITQs in fisheries or seabed mining concessions, generates inequality and conflict

within coastal communities and changes the dynamics of employment and labour, undermining livelihoods and cultures. New industries, such as seabed mining or aquaculture, are uncomfortably superimposed on traditional resource utilisation practices and the spaces within which they take place. Together, the transformation of the old and the introduction of the new cause conflict and dispossession through the collision of incommensurable imaginaries – economic growth through commodification versus community wellbeing or one-world, more-than-human spiritualities. MSP is as yet an ineffective tool for balancing the conflicting demands of managing growth whilst protecting the environment. It is open to co-option by powerful interests having access to capacities and knowledges that are denied to the marginalised coastal dwellers who have most to lose – their culture, their territory and their material means of living.

This analysis reveals multiple potentialities of the BE and identifies the need to incorporate more open dialogue into its practice. Whilst it emerged in part as a political tool for island and coastal states to gain more leverage in international policy arenas (Silver et al, 2015), in its practice it is developing as a post-political hegemon, the objective of economic growth being presumed as a fundamental and incontrovertible principle. Whilst proponents would argue that this is balanced by measures to protect nature, in emerging practice this takes second place to economy and at best the BE is a two-speed governmental project which risks the globalised economy running roughshod over environmental and social priorities as the forces of commodification, marketisation, privatisation and capital win over resources and influence.

The use of Dean's governmentality analytic has allowed the elucidation of a complex and nuanced understanding of the blue economy, complementing earlier discourse and content analyses (Silver et al, 2015; Voyer at al, 2018). Not only do we understand the rationales that have been developed to justify the blue economy, but we also see how it is implemented (through regimes of practices). The spatial analytic reveals additional insights regarding opportunity, risk and outcomes.

Finally, I have highlighted the role of the ocean's material and spatial relations to the BE governmentality, and drawn attention to the importance of place. Place is co-produced, by relations of governance as well as other social and material relations, and is multiple and overlapping, creating a complex governmental challenge. On the one hand the material and spatial specificities of places have often profound consequences for how governance is exercised, creating sites and spaces of resistance. On the other hand, governmentality, through the discursive rationalities, the technologies, practices and devices deployed in its name, undoubtedly is an important force in the co-production of space. Given this relational complexity, it is not clear that we are yet equipped with a sufficiently sophisticated understanding of place to successfully rise to the challenge that BE governance poses.

Appendix. Full mind maps, corresponding to respective figures in the main document.
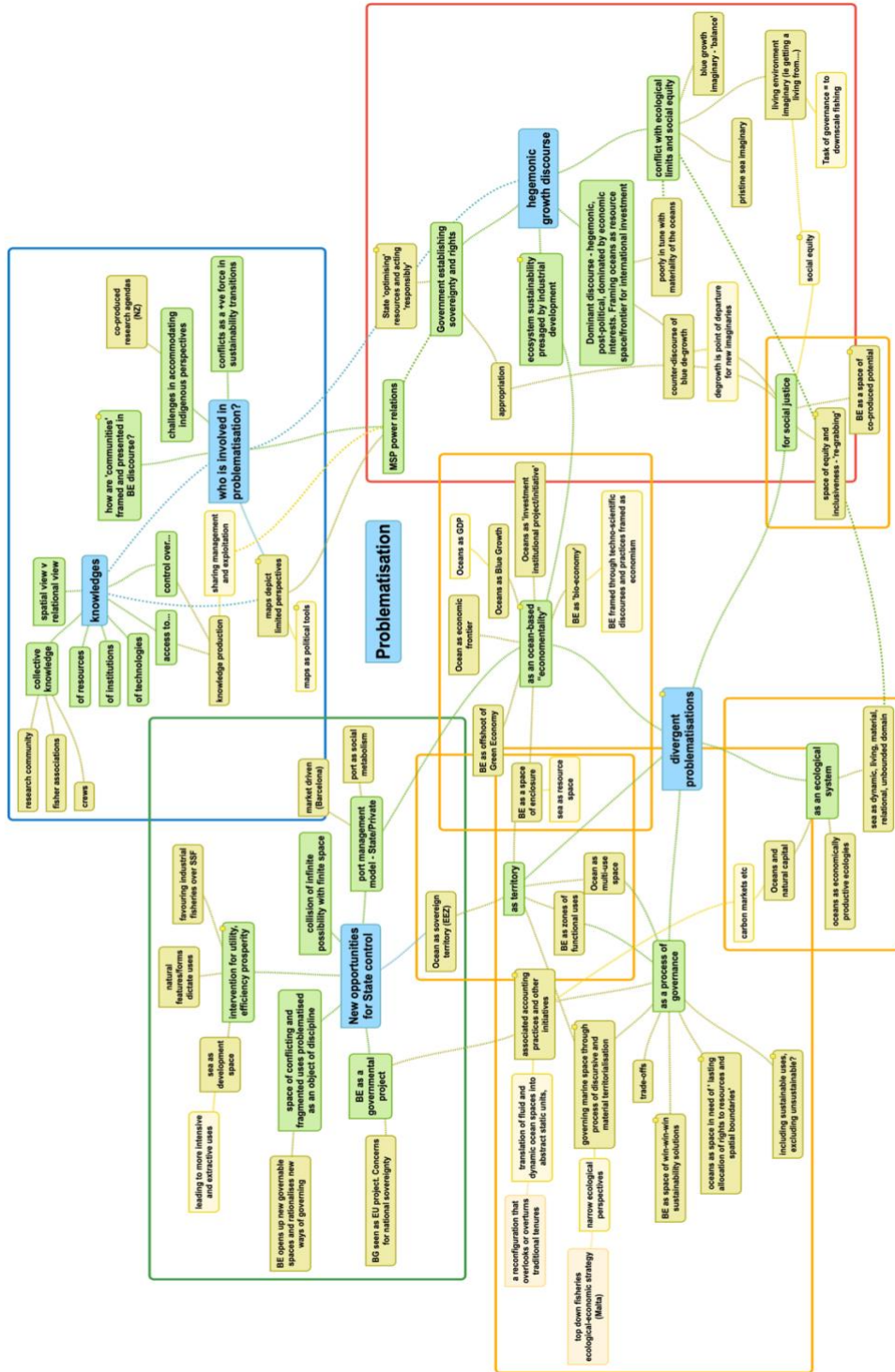
Figure 1 - Problematisation
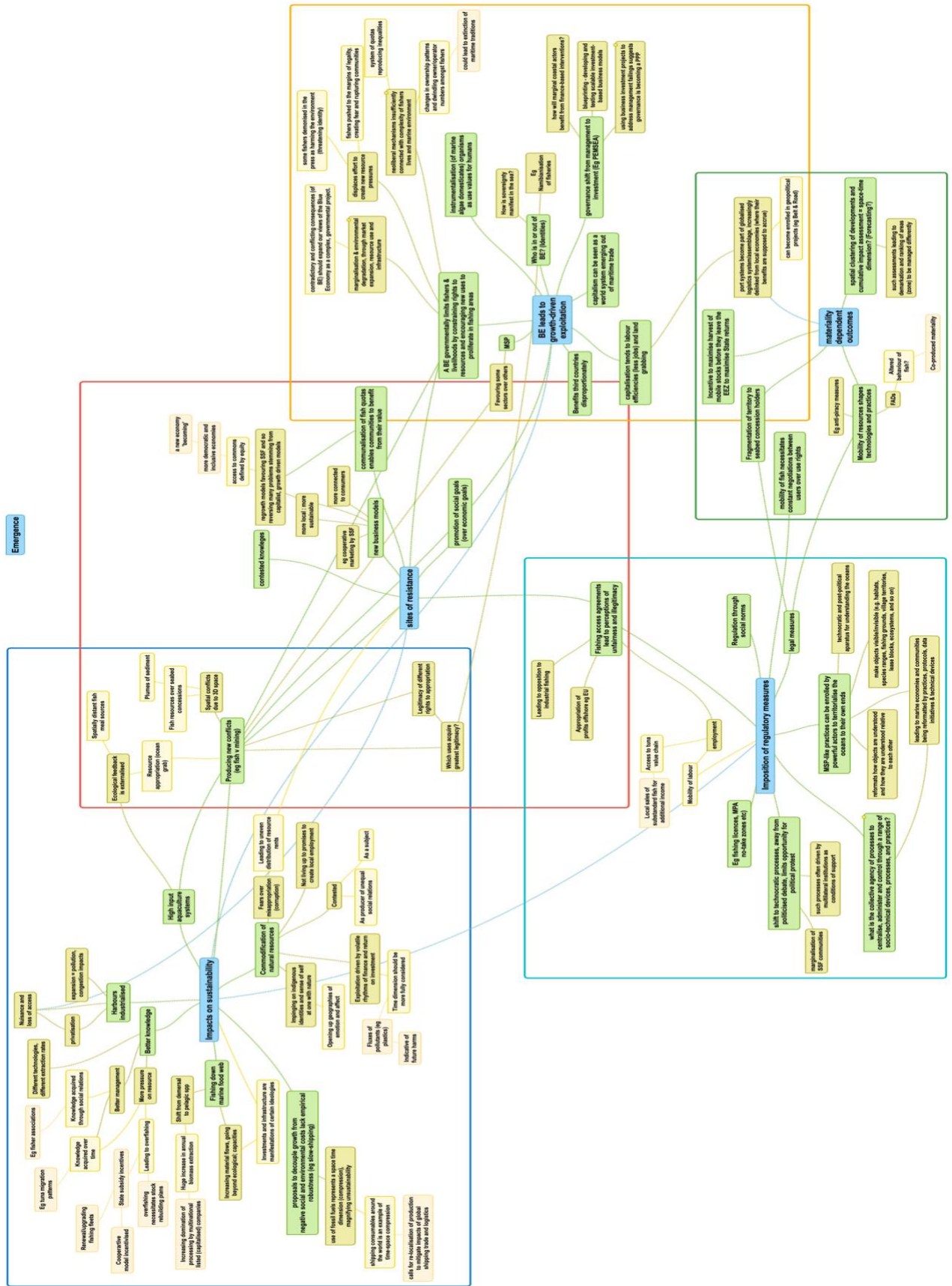
Figure 2 - Utopias

Figure 3. Regimes of Practices

Figure 4. Boundedness

Figure 5. Openness

Figure 6. Emergence

Paper 2: Enacting the blue economy in the Western Indian Ocean: a 'collaborative blue economy governmentality'

Abstract

The Blue Economy represents a new development paradigm, being promoted through multilateral institutions. I examine its emerging nature in the context of the Western Indian Ocean region of Africa. I situate the blue economy within the global sustainable development discourse and argue that it represents a form of global governmentality. I note its utopian nature and argue that discourses of utopian thought and risk act to 'responsibilise' States to collaborate in regional sea management in pursuit of human and environmental security goals – which I call a 'collaborative blue economy governmentality'. I draw attention to multiple sites of resistance ('counter conducts') to this governmentality. These counter conducts are diverse, encompassing community resistance to development priorities, insufficient technical capacities and resources, and the material character of ocean and coastal ecosystems. I therefore characterise the blue economy as an *immature* governmentality, necessitating State and multilateral intervention to put in place or strengthen the governmental capacities needed to enact it. I conclude that the BE governmentality is largely of a neoliberal character, but with hints of an emergent post-neoliberal regime.

1.0 Introduction

'What is the Blue Economy?' is a question that even now fails to elicit a single answer. Multiple

interpretations, ease of co-option, and the evolution of new approaches to implementation in vastly

different socio-economic and institutional contexts are just some of the challenges to pinning the

blue economy (hereafter, BE) down to a clear definition. In this paper I examine the evolution of the

BE concept in Africa and how it is being enacted in the Western Indian Ocean (WIO) region. I start

with a review of the origins of the BE in a wider sustainable development discourse, before focusing

in on the WIO region. Taking a spatialised governmentality perspective I argue that a form of global

governmentality is evident. I construct my argument in three steps. First, that the BE represents a

new development pathway for Africa in which utopian thought is deployed to enrol states in a global

rationality for sustainable ocean development – a form of global governmentality. Two, that this

governmental rationality is deployed to encourage states to work together to manage the Western

Indian Ocean as a shared resource, which I call a 'collaborative BE governmentality'. Three, that it is

an immature governmentality – insufficient capacities, and spatio-material barriers representing

'counter-conducts' – necessitating adaptation and governmental and multilateral intervention. I

evidence this argument through a discourse analysis of regional policy documents and interview

texts. The paper is structured as follows: I first introduce the WIO region and the origins of the BE as

a development paradigm. I next introduce the conceptual perspectives which I draw upon and my

analytical approach. In the discussion section I describe the discourse and present my analysis,

followed by concluding statements.

1.1 Western Indian Ocean region

The WIO is a regional sea off the east coast of Africa, It encompasses 10 states in total: on the

African mainland from Somalia to south Africa via Kenya, Tanzania and Mozambique, and the island

states of Commoros, Madagascar, Mauritius, Seychelles, and Réunion and Mayotte as overseas

territories of France. The WIO contains important habitats (coral reefs, mangrove forest, seagrass beds) and commercial fisheries of global importance, especially various tuna species. Ocean currents and upwellings support this biota. Some countries have created large marine protected areas (MPAs) in their EEZs (Exclusive Economic Zones), and cross-border management initiatives are emerging. The region is closely connected with the 'birth' of the BE as a concept, comprising a number of the small island states and least developed coastal countries that championed its development. The WIO region has longstanding partnerships, for example in the Nairobi Convention (one of a number of UN regional sea Conventions), the Indian Ocean Commission and the Indian Ocean Tuna Commission amongst others. Recent strengthening of Regional Economic Commissions (RECs) in Africa bring a new dimension. Central to some economies (e.g. Seychelles and Mauritius) but overlooked in the past by others (e.g. Kenya), the oceans have become an object of country's growth aspirations as land based pressures of population growth and urbanisation drive environmental degradation and threaten livelihood and food security.

1.2 Origins

The BE represents an evolution of the global sustainable development discourse, which has its roots in the publication in 1972 of the report 'Limits to Growth' by the Club of Rome. In the following paragraphs I briefly summarise BE origins and relevant critiques, as it is pertinent to my later arguments. Limits to Growth identified a goal for humanity of establishing 'a condition of ecological and economic stability that is sustainable far into the future.' In 1983 the UN General Assembly established an independent commission, the World Commission on Environment and Development, to formulate a 'global agenda for change' in response to threats to humanity from a degrading global environment, resulting in the publication of 'Our Common Future', widely known as the Bruntland Report. In setting out an agenda for sustainable development, the Commission drew on

two key concepts, that of human development needs (drawing on the 1972 Stockholm Declaration[13])

and the limitations imposed on the environment to meet those needs in the future due to the state

of technology and social organisation at the time. This report set in train a series of UN Conferences

on Environment and Development through which global approaches to sustainable development are

negotiated.

1.3 Green economy and blue economy

By the mid-2000's the term sustainable development was losing traction as a policy tool, especially

at a political level (Jacobs, 2012). The 'Green Economy' was presented as a new approach to

sustainable development (Rio+20 conference, 2012), recognising the importance of 'getting the

economy right' and overturning the structural factors that favour the 'brown [fossil fuel] economy'.

A transition to a green economy was invoked to improve social equity and reduce economic risks,

requiring specific enabling conditions of national regulations, policies, subsidies and incentives, and

international market and legal infrastructure and trade and aid protocols (UNEP, 2011). In short, a

new development paradigm. At the same time, unhappy with the potential implications of a green

economy focus, Island states with small 'green' and large 'blue' territories called for a parallel focus

on 'blue' economies. 'Green Economy in a Blue World' (UNEP et al, 2012) made the case that the

oceans needed to be included in the remit of the green economy. This discourse of ocean

development followed through into the UN Sustainable Development Goals (SDG), agreed in 2015.

Goal 14 of the SDGs, 'life below the oceans' has a target on economy[14], which highlights the needs of

Small Island Developing States (SIDS) and least developed countries, many of which lie in the

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[13] An important foundation of this definition was the 1972 Stockholm Declaration which recognised that "Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being" (Principle 1). The Declaration also "proclaimed the solemn responsibility of governments to protect and improve the environment for both present and future generations."

[14] TARGET 14.7. INCREASE THE ECONOMIC BENEFITS FROM SUSTAINABLE USE OF MARINE RESOURCES. By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism. (UN, 2015).

Western Indian Ocean. The World Bank clearly sees the BE development paradigm as a, perhaps *the*, approach to meet Goal 14: "In addition to target 14.7, the activities undertaken as part of the various sectors of the blue economy are linked to the achievement of other SDG14 targets" (World Bank, 2017: 28).

Given the related origins of the green and blue economy concepts, it is instructive to understand critiques of the green economy discourse, to help to arrive at an informed analysis of that relating to the blue economy. The term 'green economy' has been around for some time (e.g. Pearce et al, 1989. Jacobs, 1991), but it is only more recently that it has entered the global political discourse, most significantly (in the years prior to the UN Conference on Sustainable Development, 2012) in "Towards a Green Economy" (UNEP, 2011). The term Blue Economy also arose at that time, in a related move (e.g. Silver et al, 2015). The rise to prominence of 'green economy' after the 2008 financial crisis is ascribed to the need for a more salient political discourse to advance sustainable development, which was losing momentum as a concept in part because of its imprecise definition and the "incapacity of sustainable development to reconcile conflicting global economic, development, and ecological imperatives" (Ferguson, 2015: 17). The terms 'Green Economy' and 'Green Growth' have the advantage of confronting the issues of environment and economic development head on (Jacobs, 2012), aiding clarity. Further, the *green economy* discourse avoids an explicit anti-growth' or 'limits to growth' position and hence has greater transformative potential (Ferguson, 2015) than *green growth*. Weak and strong sustainability discourses[15] (e.g Jacobs, 2012, in relation to green growth; Pelenc et al., 2015), respectively emphasise efficient use of resources and consideration of environmental risks such as pollution and natural disasters, or additionally

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[15] Weak sustainability assumes that natural capital and manufactured capital are substitutable and that there are no differences between the kinds of well-being they generate. Advocates of strong sustainability, on the other hand, contend that natural capital is not substitutable: the destruction of natural capital is sometimes irreversible (extinctions for example) and its effects uncertain; manufactured capital requires natural capital for its production so can never be a complete substitute. Strong sustainability asserts that certain elements of natural capital are 'critical' due to their unique contribution to human well-being. (Summarised from Pelenc et al., 2015)

stress the sustainability of the natural resource base for human wellbeing. Jacobs nevertheless points out that there is common ground between them, namely "a level of environmental protection which is not being met by current or 'business as usual' patterns of growth" (Jacobs, 2012; 5) and contends that it is this characteristic which gives the concept its political traction. Ferguson (2015), taking an ecological modernisation perspective, recognises a third, intermediate stage, transformational green economy. The green economy's transformative potential stems from its 'reflexivity' – an ability of the modernisation process to transform not only itself but also the underlying norms of industrial society (Paterson at al, 2006). It is this process by which modern societies radically renegotiate their relationship with nature, one consequence of which is an emphasis on distribution of risk and a shift in the focus of security from State to people, communities, and ecosystems (Ferguson, 2015).

As well as harbouring multiple interpretations, the green economy discourse masks some inherent conflicts and contradictions. Drawing on Polanyi and Gramsci, Wanner (2015; 23) interpreted the green economy as "a strategy of 'passive revolution' based on obfuscating contradictions between economic and ecological sustainability." His argument is that the green economy and green growth, rather than providing a path to social and international justice, is deeply embedded in neoliberal capitalism and is simply an extension of the hegemonic sustainable development discourse which is itself "ultimately about the sustainability (or 'sustainable development') of neoliberal capitalism" (Wanner, 2015; 24). The discourse is legitimated by the conceptual device of absolute decoupling of economic growth from natural resource use and environmental deterioration (see UNEP 2011: xi), thereby protecting neoliberal free market economies by denying the existence of trade-offs between environment and economic growth and "diverting the counter-hegemonic challenge of environmentalism" (Wanner 2015: 27). Notwithstanding such moves, existing capitalist structures are adept at co-opting discourses to their own ends. Buseth (2017) for example, describes an agricultural investment initiative in Tanzania embracing the green economy discourse but with little

observed change in practice. Midlen (2021), reviewing published analyses of BE cases, reveals the

blue economy in practice as a 'complex spatialised governmentality', frequently privileging economic

growth before environmental protection. Other authors have identified competing BE discourses

(Silver et al 2015, Voyer et al, 2018), raising questions as to what should be 'in' or 'out' of the BE

(Voyer & van Leeuwen, 2019), and calls continue for a more environmentally sustainable and

socially equitable blue economy (e.g. Golden et al, 2017; Bennet at al 2019; Midlen, 2021).

Responding to differing interpretations of the BE, WWF (an environmental INGO) proposed a

definition for a 'sustainable blue economy' and a set of guiding principles (WWF, 2016) reflecting the

social and environmental priorities of the SDGs. These were followed in 2018 by Sustainable Blue

Economy Finance Principles (European Commission, 2018), defining a sustainable blue economy as

one that "provides social and economic benefits for current and future generations; restores,

protects and maintains diverse, productive and resilient ecosystems; and is based on clean

technologies, renewable energy and circular material flows" (UNEPFI[16], 2022). Ertor and

Hadjimichael (2020), introducing a special Journal issue on blue economy and degrowth[17], draw

attention to emerging critiques of the blue economy which call into question the fundamental thesis

upon which the blue economy rests – 'sustainable growth'. This significant body of scholarship

highlights numerous cases of social injustices attributable to blue economy policy. Bennet et al

(2021) identify 10 risks for social justice in relation to blue growth policies, and Germond-Duret et al

(2022) call for a greater emphasis on the place of environmental protection and people within blue

economy analyses. Schreiber et al (2022) discuss the concept of blue justice in relation to blue

economy and small-scale fisheries.

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[16] UNEPFI website. Accessed, Oct 2022. https://www.unepfi.org/blue-finance/
[17] Special Feature: Blue Degrowth and the Politics of the Sea: Rethinking the Blue Economy
https://link.springer.com/journal/11625/topicalCollection/AC_b295fe45276b65e158d1830077bb9b21

2.0 Conceptual perspectives

The BE, then, represents a particular rationality of government - a sustainable future is to be attained by following a growth-based development paradigm incorporating practices in which environmental degradation is positioned as a source of economic and social risk. To analyse the nature of the BE in the WIO region I draw on the work of Foucault, in particular his analysis of governmental rationalities ('governmentalities'), of neoliberalism and risk, and related work regarding utopian thought. I outline these conceptual perspectives in the following sections.

2.1 Spatialised governmentality

As an analytic lens I take a 'governmentalities' approach, following the work of French historian and philosopher Michel Foucault. Foucault showed in his genealogy of government (Foucault, 2007, 2008), how states in Europe developed technologies that allowed them to govern at a distance, rather than exerting direct power through the rule of law, which became an inefficient form of government as populations increased and states began to govern to manage their wellbeing rather than by maintaining order alone. This change to a pastoral form of government required new technologies which enabled the state to exert power through the 'conduct of conduct' – that is, to indirectly control how people and institutions conduct themselves. Foucault recognised such shifts in the 'governmentalisation of states' as 'biopolitics' or 'biopower' – a shift from sovereign, juridical forms of power (law, legislation, and violence) to power enacted through concern with the security and welfare of populations. Foucault refers to this 'conduct of conduct' as 'governmentality', which embodies the "'the ensemble' of institutions, procedures, analyses and reflections, calculations, and tactics that allow the exercise of this ... power that has the population as its target, political economy as its major form of knowledge, and apparatuses of security [especially statistics] as its essential technical instrument" (Foucault, 2007: 108). In this way the state is displaced as the centre of power in favour of multiple technologies of power operating within an economy of power that is

constituted by the "interplay of freedom and security" (Foucault, 2008: 65; see also 63, 64, 66, 67;

2007: 44-48, 353, 354), security being the 'cost' in this economy of 'manufacturing' freedom.

Foucault identifies multiple governmentalities: initially sovereign, discipline, and advanced liberal

government, the latter evolving a 'neoliberal' governmentality which deploys a variety of devices,

for example technologies of risk, agency (e.g. contracts), performance (e.g. benchmarks), and

visibility (e.g. graphs - see Rose, 1996; Dean, 2010a: Ch 8 and 9) to promote freedom (as exercise of

choice) in return for competitive and responsible conduct. It associates risk with individual

responsibility (see Defert, 1991; Ewald, 1991; O'Malley, 1996). Scholars have since used the concept

of governmentalities to both analyse and explain governmental practices in many fields, including

environment: for example, environmentalities (Agrawal, 2005; Fletcher and Cortes-Vazquez, 2020);

green governmentalities (Luke, 1999; Rutherford, 2007); multiple environmental governmentalities

(Fletcher, 2010; 2017). That governmentalities have spatial dimensions is a recognised (see

Crampton and Elden, 2007) but relatively under-developed aspect of governmentality studies.

Midlen (2021) introduces a place-space-times framework alongside Dean's (1999) governmentality

analytic framework to better understand the spatialities of governmentalities in the oceans.

2.2 Risk and responsibilisation

Foucault regards risk as a core rationality of neoliberal government, one that *enables* government

despite the uncertainties of the future. According to Foucault, neoliberalism locates responsibility

for managing risk in subjects rather than in government, the governmental role being to make a

range of calculative methodologies available for risk management (see O'Malley 2004; Baerg, 2014).

Today, society is asked to respond to risks from climate change, risks from biodiversity loss and

environmental degradation, and risks from demographic spatial (eg migration) and temporal (eg

population growth) change. These risks give rise to a variety of concerns which threaten human

security – traditional security concerns such as crime, terrorism and war, and more recently

recognised ('non-traditional') concerns for human security such as public health, availability of food, etc (Caballero-Anthony, 2016). A risk based global governmentality has developed in response. Through international institutions the nature of threats are institutionalised, their magnitude calculated, and measures designed to mitigate them. Hardy and Maguire (2016) describe a dominant discourse of risk - that is, one in which texts and practices draw on one another in well-established ways to construct convergent and widely used descriptions and explanations of phenomena (Phillips et al., 2004) bringing 'risk' as an object of knowledge into existence in a particular form(s). This in turn rules in certain ways of talking and acting in relation to a topic and rules out others (Phillips et al, 2004) "thereby institutionalising practices and reproducing behaviour" (Hardy & Maguire, 2010: 1367) such that a particular view of 'reality' becomes reified and taken-for-granted (Maguire & Hardy, 2009). Dean (1998), comparing Beck's (1992) 'risk society' with a Foucaultian understanding of risk, understands Beck's framing as part of a narrative of phases of modernity (*i.e.* that society has entered into a risk phase) and points out that as such it does not shed much light on the act of governing itself. Rather, Dean (1998: 25) sees risk as "a set of different ways of ordering reality, of rendering it into a calculable form." This in turn renders events "governable in particular ways, with particular techniques, and for particular goals." As such it represents a form of calculative rationality for governing the conduct of individuals, collectivities and populations. The dominant discourse establishes power relations which enables certain actors to construct what constitutes a risk, and to decide how to avoid or manage it by calculating the nature, extent and likelihood of possible hazards under different scenarios (Dean, 1998; Lupton, 2013). By "determining the 'real' probability of an adverse event multiplied by the true magnitude and severity of consequences," risk becomes "identifiable through scientific measurement and calculation, and [can] be controlled using such knowledge" (Gephart et al., 2009: 143). The dominant discourse of risk is both an instrument and effect of power, one which thus revolves around normalizing risk – rendering unpredictable and uncontrollable hazards into knowable and manageable risks through a web of power relations that enables and constrains all actors, albeit unequally and in different ways (Hardy & Maguire, 2016).

This risk discourse is evident in global policy, with principles of human security and collective

security being enshrined within the institutions of the United Nations. This perspective on risk

transcends traditional security concerns (inter- or intra-state violence, terrorism, and transnational

crime etc) to include threats from infectious diseases, poverty, and environmental degradation. Thus

"Any event or process that leads to large-scale death or lessening of life chances and undermines

States as the basic unit of the international system is a threat to international security" (United

Nations, 2004: 23). By this rationality the UN seeks to provide security for the world as a population

(rather than a world of states). It enacts this concern through the concepts of human security and

collective security (and accompanying risks), enacted through technologies of agency

(contractualism), performance (benchmarking), and networks (Jaeger, 2010). Thus, the UN is "a

project of managing and regulating the global population through a variety of governmental

rationalities and techniques," and represents a "biopolitical 'reprogramming' of sovereignty and

global governance whose political finality is the vitality, security, and productivity of the global

population" (Jaeger, 2010: 53). Here, a positive facet of the risk discourse is revealed - the benefit of

avoiding or mitigating risks. In this sense it is utopian.

2.3 Utopian thought

The global sustainable development discourse, mediated through the institutions of the United

Nations, is infused with utopian thought (Hedrén & Linnér, 2009). The SDGs, for example, are

presented as "a shared blueprint for peace and prosperity for people and the planet, now and into

the future"[18]. Whilst Foucault engages very little with the idea of utopias directly (except in

connection with heterotopias. Foucault, 1967 (translation 1984)), the concept of a goal or objective

is central to any governmentality (Dean, 2010a). 'Utopia' is derived from the Greek *ou*topia and

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[18] Sustainable Development Goals website https://sdgs.un.org/goals. Accessed November 2022

*eu*topia, it being simultaneously 'other place' and 'no place', respectively (Hedrén 2009). Hedrén & Linnér (2009) remind us, therefore, that "utopias should never be regarded as blueprints for general transformation, but rather as sources of inspiration and driving-forces for reflections on how to design politics for a better future society". *A utopia* is a narrative representing what is considered to be a best society (Kumar, 1999). Utopian places described are "harmonious and fair" and demonstrate how contemporary conflicts and contradictions can be overcome (Hedrén & Linnér, 2009). Utopian narratives embody a specific morality and values, having a clear sense of what is right or wrong for society. *Utopian thought*, in contrast, encompasses a wide range of visionary expressions (including the dystopian) normally using contemporary social conditions as their initial frame of reference and inspired by their conflicts and contradictions (Hedrén & Linnér, 2009). The dystopian elements of such discourses, such as risk and insecurity, function mainly as rhetoric to "spur action or inaction, to avoid either economic catastrophe by acting too fast or ecological catastrophe by not acting fast enough." (Hedrén & Linnér, 2009: 200). In Utopian thinking, when society is in a perceived state of decline, a future utopia can only be envisaged through radical break with the present (Levitas, 1982). A transition to a BE for example, in which environmental degradation is reversed and human needs met, necessitates such a radical break. Utopian discourse can effect this change by elaborating the opportunities presented and risks avoided by pursuing it.

I have now set the scene for my analysis, situating the BE within the global sustainable development discourse. I have shown how this has evolved into green and blue economy discourses, through the UN conferences on sustainable development. I have noted its utopian nature and explored risk as a dystopian device. I have linked this to concern in the UN with human security and the responsibility of states to mitigate *in*securities in order to secure the wellbeing of their populations. In the next section I introduce my analytical approach and describe the methodology applied to this study.

3.0 Methods

This paper is based on a discourse analysis of texts (policy reports and statements, interview transcriptions and notes, field observation notes) relating to the BE in the WIO region. Interviews were conducted online and, in Kenya and Seychelles, in person.

3.1 Discourse analysis

Foucault recognised the importance of discourse as a technology of power and knowledge in the governance of populations (Foucault, 1998. See also Feindt and Oels, 2005; Springer, 2012). For Foucault, a discourse is constitutive of 'reality' in that it physically shapes or produces it. Feindt & Oels (2005) identify a number of strengths regarding the use of discourse analysis in environmental policy analysis, including an awareness of the role of language and knowledge in constituting policies, polities and politics and as exerting power effects, and how practices of government are constitutive of power relations and knowledge systems. Put simply, discourse analysis acknowledges that language and knowledge frame problems of government and in doing so privilege certain solutions over others, and those solutions give rise to practices and knowledges that themselves exert power over subjects. Further, Foucault recognised power as distributed, located in a multiplicity of nodes (e.g. institutions) or locales. As such, State power can be resisted, through 'counter conducts', establishing a dialectic between government and its subjects (e.g. Death, 2010).

3.2 Data sources and analysis

This discourse analysis is based primarily on policy documents issued by the African Union (AU) and its agencies, by international and multilateral institutions in the Western Indian Ocean Region, and by regional States, notably Kenya and Seychelles (Table 1). Documents were identified through web searches for BE policy relevant to the region, and by identifying BE-relevant policy of key organisations (eg African Union; Nairobi Convention). Recognising that policy as written does not

always turn into practice as intended, these data were triangulated with online semi-structured interviews with representatives of organisations responsible for producing many of the documents analysed (in March-July 2021), and with semi-structured interviews in the field (sometimes including field observation) with government officials and local practitioners and stakeholders in Seychelles and Kenya (Oct 2021 to March 2022) (see Table 2). These latter interviews and visits were selected through web-searches for relevant organisations and initiatives and by recommendation from key informants. Covid-19 travel restrictions delayed in person interviews and field observations for some months.

Policy texts were analysed using NVivo 12. Coding followed a spatialised governmentality framework developed by the author and described in Midlen (2021). This follows Deans' (1999) analytic of government (simplified, after Russel and Frame, 2013), based on Foucault's governmentality concept, but augmented with a complementary framework based on place-space-time theories (Malpas, 2012) to aid in drawing out place-based factors. Dean's framework for analysis of governance consists of three analytical categories - problematisations, utopias, regimes. Malpas, in contrast, is concerned with place and space rather than institutions. He considers space to be subordinate to place and place to comprise of *bounded space-times*. Place is underpinned, therefore, Malpas argues, by three fundamental elements: boundedness, openness and emergence. In my interpretation, boundedness denotes the physical and is therefore spatial; openness encompasses access and opportunity, and their converse - exclusion and risk; emergence represents time, becoming and movement (see Midlen, 2021, for a fuller elaboration). These place based elements of the analytic framework complement Dean's and enable fuller consideration in governmentality analysis of the material (which is spatial) and the spatial delimitation of institutions for governance, of opportunity and potential, and of trajectories and outcomes resulting from governance regimes. These are aspects of discourse and environment which are not explicitly

revealed in a governmentality analysis alone and which are important in understanding the influence of place in governance and governmentality. The coding framework is detailed in Table 3.

Interview texts were coded inductively to provide more robust triangulation, allowing themes to emerge from interviewees experiences, opinions, and priorities. Coded text was transferred in summary form to a digital mind map (SimpleMind Pro), providing a visual representation of coding themes, and a platform on which to easily manipulate coding interrelationships in a further level of analysis. This enabled cross-linking of topics and re-ordering and synthesis of the governmentality and place-space-time coding so as to better represent the complex interrelations of spatialised governance that are characteristic of ocean environments and the blue economy. A narrative summary was produced for each of the resulting thematic clusters. (Appendix 1)

Table 1. Documents subject to discourse analysis.

Title	Spatial remit	Focus	Publisher/date
Blue economy flagship. A briefing note for partnership.	African Continent	Prepared for Blue Economy Conference in Nairobi, Kenya, 26–28 November 2018.	African Development Bank Group, 2018
2050 Africa's Integrated Maritime strategy (2050 AIM strategy).	African Continent	Maritime strategy	African Union (2019).
Conference Report. African Ministerial Conference on the Environment. Seventeenth session	African Continent	Marine environment	AMCEN (2019).
Africa Blue Economy Strategy. Nairobi, Kenya. Strategy report and Annex's 1–5	African Continent	Blue Economy development	AU-IBAR, 2019.
Development of the AUDA-NEPAD Blue Economy Programme. Messages from Stakeholders	African Continent	Blue Economy development	AUDA-NEPAD 2019.
Introducing the sustainable blue economy finance principles	Global	Blue Economy finance	European Commission (2017).
Declaration of the sustainable blue economy finance principles.	Global	Blue Economy finance	European Commission (2018)

Title	Spatial remit	Focus	Publisher/date
Sector plan for blue economy. State Department for Fisheries, Aquaculture and the Blue Economy, Ministry of Agriculture, Livestock, Fisheries and Irrigation.	Kenya	Blue Economy development	Government of Kenya (2018).
High Level Panel For A Sustainable Ocean Economy, Western Indian Ocean (WIO) Regional Meeting. 2–3 December 2019, Mombasa, Kenya. Meeting Report	WIO Region	Blue Economy development	HLP, 2019.
A regional strategy for conserving marine ecosystems and fisheries of the Western Indian Ocean Islands Marine Ecoregion (WIOMER).	WIO Region	Marine environment	Indian Ocean Commission (IOC). 2010.
Building the Blue Economy in the Western Indian Ocean. 8th Conference of Parties Meeting for the Nairobi Convention, 22–24 June 2015 Mahé, Seychelles. Blue Economy and Oceans Governance Workshop	WIO Region	Blue Economy development	Kelleher, K. (2015).
Ministerial segment, Durban, South Africa, 14 and 15 November 2019. Advancing the blue/ocean economy in Africa	African Continent	Blue Economy development	AMCEN (2019)
Seychelles Blue Economy: Strategic Policy Framework and Roadmap. Charting the future (2018–2030).	Seychelles EEZ	Blue Economy development	Republic of Seychelles (2019).
Report on The Global Sustainable Blue Economy Conference. 26th – 28th November 2018, Nairobi, Kenya	Global / Africa	Blue Economy development	SBEC (2018)
The Nairobi Statement of Intent on Advancing the Global Sustainable Blue Economy. Sustainable Blue Economy Conference, Nairobi, Kenya	Global / Africa	Blue Economy development	SBEC (2018).
Unlocking the full potential of the blue economy: Are African Small Island Developing States ready to embrace the opportunities? Addis Ababa, Ethiopia	African continental islands	Blue Economy development	UNECA (2014)
Africa's Blue Economy: A policy handbook. Addis Ababa, Ethiopia	African Continent	Blue Economy development	UNECA (2016a)
The Blue Economy. Report. Addis Ababa, Ethiopia	African Continent	Blue Economy development	UNECA (2016b)
Blue Economy, Inclusive Industrialization and Economic Development in Southern Africa. The	Southern Africa	Blue Economy development	UNECA (2020)

Title	Spatial remit	Focus	Publisher/date
24th Session of the Inter-Governmental Committee of Experts (ICE) (Senior Government Officials) of Southern Africa. 18–21 September 2018, Balaclava, Mauritius			
AFRICA'S BLUE ECONOMY: Opportunities and challenges to bolster sustainable development and socioeconomic transformation. Issue Paper produced for the Sustainable Blue Economy Conference. 26th – 28th November 2018, Nairobi, Kenya	African Continent	Blue Economy development	UNECA (2018)
Transformative Growth in Eastern Africa: Catalysts and Constraints. ECA-EA/ICE/21	Eastern Africa	Regional Economic Development	UNECA (2017)
Green Economy in a blue world. Nairobi, Kenya	Global	Sustainable ocean development	UNECA (2012)
Report of the eighth conference of parties to the convention for the protection, management and development of the marine and coastal environment of the Western Indian Ocean (Nairobi Convention). Mahé, Seychelles. 22–24 June, 2015.	WIO Region	Marine environment	UNEP (2015)
Marine Spatial Planning of the Western Indian Ocean Blue Economy. UNEP/NC/FP/2017/4/Doc/13	WIO Region	Spatial planning	UNEP (2017)
The Potential of the Blue Economy: Increasing Long-term Benefits of the Sustainable Use of Marine Resources for Small Island Developing States and Coastal Least Developed Countries. World Bank, Washington DC.	Global	Blue Economy development	World Bank (2017a)
The Ocean Economy in Mauritius: Making it happen, making it last. Washington DC, USA	Mauritius	Blue Economy development	World Bank Group (2017b)
Principles For a Sustainable Blue Economy.	Global	Blue Economy development	WWF (2017a)
Reviving The Western Indian Ocean Economy. Gland, Switzerland	WIO Region	Blue Economy development	WWF (2017)

Table 2. Key to key informant codes

Organisation	Expertise	Code	Date of interview
TNC (The Nature Conservancy)	Coastal resource conservation	INGO1	10.11.21 and 5.1.22 online
Gazi Community Forest Association	Community-based resource management	CFA1	27.10.21 In person
Government of Seychelles	National fishery policy	FP1	17.2.22 Online
Fishing Boat Owners Association	Fishing sector	FS1	24.2.22 In person
Government of Kenya	Blue Economy policy	BEP1	16.03.22 In person
Independent Expert	International ocean governance	IE1	08.04.21 Online
Independent Expert	Carbon accounting	IE2	21.02.22 In person
IOTC (Indian Ocean Tuna Commission)	International Fisheries Policy Coordination	IFP1 IFP2	17.05.21 Online 01.03.22 In person
Nairobi Convention	International environmental policy coordination	IEP1	22.06.21 Online
AU-IBAR*	Intergovernmental Agency	IGA1	03.05.21 Online
Government of Seychelles (NC representation)	International environmental policy coordination	IEP2	28.04.21 Online
IGAD**	Regional Economic Community	REC1	27.04.21 Online
Independent Expert	International ocean governance	IE3	20.04.21 Online
Government of Seychelles JMA***	International environmental policy coordination	IEP3	16.04.21 Online
Government of Seychelles	National BE Policy	BEP2	14.04.21 Online 23.02.22 In person
Indian Ocean Commission (IOC)	International environmental policy coordination	IEP4	15.05.21 Online
Independent Expert	International ocean governance	IE4	18.05.21 Online
TNC	Coastal resource conservation	INGO2	16.02.22 In person
Government of Seychelles	Blue Economy Policy	BEP3	03.03.22 In person
Save Lamu	Community Action Group	CAG1	15.11.21 + 25.11.21
Contact Group****	Maritime security	MS1	22.04.21
LAPSSET CDA	Port Development	PD1	16.03.22

* African Union Inter-African Bureau for Animal Resources

** Intergovernmental Authority on Development in Eastern Africa

***Joint Management Area of the Extended Continental Shelf

**** Contact Group on Piracy off the Coast of Somalia

Table 3. Depicting the coding framework used in this study for discourse analysis.

'Spatialised Governmentality' Coding Framework	
Place-space-time (developed from Malpas, 2012)	**Governmentality** (developed from Russel and Frame, 2013, after Dean, 1999)
Boundedness • Territory • Populations • Biophysical materialities • Institutions	**Problematisation of government** • Territory and resources • Populations • Environment (and resource conservation) • Institutions
Openness • Development pathway • Access to resources (open or closed) • Opportunity / Potential / Risk	**Invention of utopia** • Visions/ Imaginaries (of development/governance) • Social justice • Articulation of benefits
Emergence • Development - African renaissance / Sustainable development / Uneven development / BE Becoming • Forms of conduct • Forms of Identity	**Operationalisation of regimes of practices** • Strategies/ Policies (to achieve development) • Practices / Norms • Devices / Technologies (ie the form or nature of the regime - cf. identity)

Note: Headings in bold represent the previously published frameworks. Bullet points have been developed empirically as part of this research.

4.0 Findings and Discussion

My argument is constructed in three steps. First, that the BE represents a new development pathway for Africa in which utopian thought is deployed to enrol states in a global rationality for sustainable ocean development – a form of global governmentality. Two, that this governmental rationality is deployed to encourage states to work together to manage the Western Indian Ocean as a shared resource - I call this a 'collaborative BE governmentality'. Three, that it is an immature governmentality – insufficient capacities, and spatio-material barriers representing 'counter-conducts' – necessitating adaptation and governmental and multilateral intervention. I evidence this argument in the following sections, dealing with each step in turn.

4.1 A utopian development pathway

A utopian vision runs persistently through the regional discourse of the BE as a new and valuable development pathway for Africa and the WIO region: "…there is an emerging opportunity to develop an African Blue Economy narrative that better reflects the kinds of development goals, partnerships, and forms of social reciprocity that African societies need as they move further into the 21st century" (UNECA, 2016a: 15), and one that reverses unsustainable resource use, "...the balance can be tipped away from illegal harvesting, degradation, and depletion to a sustainable Blue development paradigm, serving Africa today and tomorrow" and "If fully exploited and well managed, Africa's Blue Economy can constitute a major source of wealth and catapult the continent's fortunes." (UNECA, 2016a: *x*). This discourse presents the BE as a new development paradigm for Africa and the WIO, embodying the twin BE goals of environmental protection and economic development. The scale of the oceans and the opportunity they represent is frequently highlighted, the BE drawing upon a "vast network of aquatic resources" (AMCEN, 2019: 1) and "vast ocean territories" (African

Union, 2019: *iii*). The UN Economic Commission for Africa notes that the EEZs[19] and territorial waters of African States are "extensive, measuring some 13 million km², and their continental shelves extend over a total area of some 6.5 million km²" (UNECA, 2016a: *x*). This extensive resource is "part of Africa's rich geographical, social, and cultural canvas" (UNECA, 2016a: *x*), and represents a "New Frontier of African Renaissance" and a "major contributor to continental transformation and growth" (AMCEN, 2019: 3). The BE is seen not as a new sector "but rather a pathway to climate-smart, sustainable development" (Republic of Seychelles, 2019: 9). Thus, the BE is problematised as a response to human development needs and the unsustainable exploitation of natural resources upon which future wealth can be built. This problematisation has been adopted by African States collectively through continental institutions. Whilst at State level the pace of BE development is variable, nevertheless there is a clear sense of a continental initiative underway: the BE holds a 'flagship' position in the African Union development vision, Agenda 63; key Conventions between the continental States support BE development, such as the Africa Integrated Maritime Strategy, the Lomé Charter[20], etc. These initiatives are reinforced by guidance and strategy produced by associated bodies; AMCEN, the African Ministerial Conference of Environment, receives briefings on BE progress and the emerging policy framework (AMCEN, 2019); the UN Economic Commission for Africa (UNECA) has produced BE guidance; AU-IBAR produced the Africa BE strategy which is now being regionalised through the Regional Economic Commissions; the World Bank announced a 'Blue Economy for a Resilient Africa[21]' programme at COP27 in 2022.

Both opportunities and threats are to be encountered on this development pathway. Opportunities presented by the BE are elaborated with regard to the richness of the natural resource and its social value, and the opportunity to grow economies on the basis of aquatic resources and in so doing

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[19] Exclusive Economic Zones
[20] https://au.int/en/treaties/african-charter-maritime-security-and-safety-and-development-africa-lome-charter Accessed May 2023
[21] https://www.worldbank.org/en/topic/environment/brief/blue-economy-for-resilient-africa-program Accessed May 2023

meet human development needs, mitigate climate change, and transition economies to more sustainable patterns. Thus, "If African countries invest and develop the Blue Economy in a sustainable manner, this can lead to the generation of jobs and economic growth for the continent" (UNECA, 2018: 15). Recognising that many people in Africa live in poverty and suffer insecure livelihoods and access to food, addressing these challenges against a trend of a rapidly growing population is a high priority. For example, fisheries reform is seen as essential to meeting future food security needs as Africa's population rapidly grows, and is a central theme of the Blue Economy Flagship arm of the AU's Africa 2063 strategy. The large and growing population of young people is a prominent concern: "the continent has the largest number of young people of any continent, currently estimated at 200 million, and young people will influence the economic revival of the continent over the next 15 years," (AMCEN, 2019: 3). The opportunities afforded the youth of Africa by employment in the BE will enable them to "gain more access and control over the basic conditions that determine their well-being" (AU-IBAR, 2019: 13).

However, this valuable resource is under threat. "Despite the potential benefits and opportunities …. the resources of the oceans and inland waters are under serious threats due largely to governance and capacity issues as well as climate change and extreme weather events" (African Union, 2019: *iii*). Change is necessary: "Given the complexities associated with governance of these water bodies and wetlands, a paradigm shift from the business-as-usual ... approach is needed to be able to fully amass the associated benefits …." (African Union, 2019: *x*). Threats to and vulnerabilities of people, institutions and assets comprise risks to socio-economic wellbeing and the health of ecosystems, from poor practices and missed opportunities, and global environmental change, "...the unsustainable use of resources threatens livelihoods, human well-being, biodiversity, [and] the goods and services provided by the ecosystems of the WIO" (UNEP, 2017: 6). Threats encompass unsustainable use, deriving from a variety of pressures including population growth, global demand for commodities, extractive industries etc. "The WIO region is under threat. ... from ... the rapidly

growing population resulting in increased demand for goods and services, rapid urbanization, industrialization and associated problems of solid waste and effluent discharge in urban centres." (HLP, 2019: 9). Vulnerabilities reinforce this narrative but also feature a failure to adapt governance to these challenges or to capture and distribute equitably the benefits of resource wealth, "…despite significant endowments in Blue Economy resources, Eastern Africa has failed to achieve growth with sustainable and inclusive development and poverty is still prevalent in the region" (UNECA, 2016b: 25). The message is clear - in order to realise the potential offered by the BE to address human needs, action is needed to reverse unsustainable trends and practices.

4.2 A global, collaborative governmentality

In recent years Foucault's concepts of biopower and governmentality have been taken up by international relations scholars (e.g Neumann and Sending, 2007; Joseph, 2010; Jaeger, 2010; Dean, 2010) to explain various features of 'the international' as a political realm. Neuman and Sending (2007), comparing theories of the international, suggest that governmentality provides a particularly useful account of today's global governance, in which non-state as well as state polities have agency. Joseph (2010) provides an empirical example of such a global governmentality in action, World Bank Poverty Reduction Strategies emphasise "evolving responsibility and establishing governance from a distance through the responsibilisation of the development partner, encouraging countries to take ownership of the project and develop their own poverty reduction strategies", in effect subjectifying themselves. International organizations avoid direct coercion, but utilise continual monitoring and evaluation, peer review and benchmarking as governmental practices to exert control.

Foucault locates this form of governmentality through self-subjectification in the evolution of ethics. In ancient Greece ethics was concerned with the customs and practices of living life in certain ways. Olssen (2019) recounts the evolution of Foucault's thinking on ethics and its relation to

governmentality. Foucault saw ethics as being not so much a moral code but a way of living, of assimilating practices that help individuals to navigate social rules by "developing relationships with the self, for self-reflection, self-knowledge, self-examination…."(Foucault, 1985: 29) to produce "a set of practices by which one can acquire, assimilate, and transform truths into a permanent principle of action" (Foucault, 1997: 239). A study of ethics and of governmentality constitutes a form of analysis where "power relations, governmentality, the government of the self and of others, and the relationship of the self to self constitute a chain" (Foucault, 2005: 252). In the context of the UN, states agree international rules to which they must themselves comply. In relation to international development these rules originate from the principle of collective security, a cornerstone of UN policy (Jaeger, 2010), in which traditional and non-traditional security threats (famine, poverty etc) are addressed through global action. In devising and adopting such rules, States subjectify themselves, as 'responsible' states willing to act on behalf of their populations on the basis of commonly agreed problematisations of global development, and committing to certain modes of action. The Sustainable Development Goals (UN, 2015), and especially Goal 14 on 'life below water', represent such a framework of problematisations and action of central importance to the BE paradigm. At the regional level too, WIO states agree collective goals and modes of action in order to problematise and respond to prevalent environment and development needs (cf. Nairobi Convention and Indian Ocean Commission – both platforms for such action. Pertinent examples are described later in this paper).

The utopian discourse (i.e. comprising both utopian and dystopian elements) regarding the WIO BE, represents a particular problematisation of ocean development and acts as a mechanism to 'responsibilise' States (through self-subjectification) to contribute to regional BE development. This, I argue, is a form of global governmentality. That is, the blue economy discourse represents a particular governmentality that operates at an international level to influence State's ocean development policies – in Foucaultian terms to 'conduct their conduct' – in pursuit of a utopian

future in which human development needs are met and environmental degradation reversed. In the

WIO region States are encouraged through this discourse of opportunity and threat (playing to the

fear of missing out – a powerful emotional lever. Karkare et al, 2020) and associated capacity

building programmes to collectively adopt BE development policies. Thus, States are in effect

subjectified and responsibilised through a neoliberal[22] discourse of development to act for the

welfare of their populations (i.e. food and livelihood security). Development is considered to be "the

indispensable foundation for a collective security system", implicating development as an insurance

against a multitude of risks to human security (and consequent uneven development), or conversely

"as a preventative strategy in the service of collective security" (Jaeger 2010: 67, 72). In this way,

continental BE policy is enacted.

What types of action should the responsible BE State take? Considering the key challenges of

developing a BE for small island and least developed coastal states the World Bank notes that a

significant issue is "the realization that the sustainable management of ocean resources requires

collaboration across nation-states and across the public-private sectors, and on a scale that has not

been previously achieved" (World Bank, 2017: *vi*). The Sustainable Blue Economy Conference, staged

in Kenya in 2018, noted in its conference report the fundamental role of collaboration in BE

development, calling for "genuine collaboration on policy, science and markets", through "a

collaborative framework" and "Building collaboration between policy makers, researchers,

communities and business sector[s]" (SBEC 2018: 13, 14). The High Level Panel[23] at its meeting in

Mombasa in 2019 noted that African governments "need to be sensitized, encouraged and

supported to internalize and embrace regional collaboration and planning approaches for a healthy

ocean" (HLP, 2019: 3). The role of the 'region' is important – the purpose of collaboration is the

management of a shared space by neighbouring States. Such collaboration, in a BE context, aims to

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[22] A set of practices that transfer responsibility for wellbeing to individual subjects, creating a highly dispersed governance approach often, but not exclusively, involving market practices. See Dean (2010a)
[23] High Level Panel for a Sustainable Ocean Economy. https://oceanpanel.org/

produce, I argue, a development space of uniform opportunity and risk, governable and ready for investment and development.

This collaborative rationality extends to sub-national levels. Co-management (between regulators and users) is promoted as good practice in recognition of the importance of natural resources to local communities, of historic use rights, and international obligations to involve indigenous communities in management decisions. The Kenya Constitution, for example, makes provision for co-management of natural resources, such as mangrove forest and marine areas. Community Associations (forest or marine) must be established, to negotiate with the relevant ministry a set of permitted activities within a bounded area and associated monitoring protocols (INGO1). Thus, responsibility for management is shared with communities. Whilst the Government is still the law enforcement body, communities do share this responsibility, for example by establishing their own security mechanisms to protect the resource access rights they have been granted: e.g. in the Mikoko Pamoja mangrove restoration project in Kenya the community have built a surveillance watchtower to deter unauthorised use of mangrove in a way which addresses their lack of policing powers, "Even if you are not seen, you feel uncomfortable because someone may be watching you!" (CFA1). In Seychelles, a co-management approach is central to both marine spatial planning practices and inshore fisheries reform: "the focus was to move the key artisan fisheries into management ... through co-management, to improve the stakeholder participation in decision making and so on, and then to build the structures around that such as the policy and legislation, and communication and awareness." (FP1). The Seychelles 'Blue Bond' financing mechanism for the BE is supporting this transition through a community grant programme established to "empower local communities to access finance to develop their ideas for coastal management ..... [allowing] broader national scale planning of fisheries but still allowing community-based solutions to emerge through this grant financing." (FP1). However, the *quid pro quo* of co-management is the registering of fishers and their vessels, and evidence-based management using catch and effort data, "We need

to quantify real efforts and make proper management decisions. I'm pushing our members to come forward with information and participate in co-management.....100% management [of the EEZ] would help protect fishers rights" (FS1). In Kenya, Government has promoted co-management in fisheries from 2007 through the formation of Beach Management Units (BMUs). The 2007 Regulation is now under review as BMUs "have not performed as we had thought. A lot of capacity is still required," (BEP1) illustrating some of the challenges of collaboration in a multi-level governance approach.

I refer to this collaborative rationality of government as a 'collaborative BE governmentality' borrowing from network governance literatures (Larsson, 2019. See also Peters et al, 2022 on collaborative governance). In doing so I argue that the BE represents a set of governmental practices aligned to a rationality of the sea as a shared space, and as a valuable resource to support economic development to overcome a variety of socio-economic insecurities. The BE paradigm is elaborated in continental and regional policy documents, guides and formal agreements between States (e.g. AU Agenda 2063). These texts create a discourse in alignment with the broader sustainable development policy discourse (SDGs, 2015; Convention of Biological Diversity; Paris Agreement, 2015). Regional States discuss threats, risks and barriers (e.g. pollution, over exploitation, technical capacities) to the BE in regional forums (e.g. NC[24], IOC[25]) and identify priorities for joint action (e.g. maritime security; MPAs). These form the basis of programmes funded by multilateral organisations or directly by donor nations (e.g. SAPPHIRE[26] funded by GEF[27]; MASE[28] funded by European Union), having the effect of producing blue economy subjects (as described earlier) - States, practitioners, communities, businesses gain the capacities to respond to aforementioned calls for collaborative action and to support BE development through training and awareness ('sensitisation') programmes,

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[24] Nairobi Convention
[25] Indian Ocean Commission
[26] Strategic Action Programme Policy Harmonization and Institutional Reforms (SAPPHIRE) Project
[27] Global Environment Facility
[28] Maritime Security in the western Indian Ocean programme

and forms of contractualism under which BE priorities and practices are agreed and formally adopted. Research programmes (e.g. WIOMSA[29]/NC science policy platform) and scientific reports create BE knowledges, informing policy and action. Programmes reterritorialize the ocean and other spaces as blue economy spaces (e.g. Mascarene Plateau joint management area; RMIFC[30] General Area of Interest; Seychelles Blue Bond in capital market spaces; mangrove carbon credits in carbon market spaces).

4.3 Counter conducts and limited capacities

However, this collaborative BE governmentality is immature. As noted above, States have insufficient capacities to undertake the transformations needed to achieve the objectives of a sustainable BE, necessitating donor support if international objectives are to be met. Further, fragmentation of governance (environment / economy) leads to calls for new institutions for regional coordination and collaboration for more holistic policy making (IE1), bringing RECs and environmental platforms (NC, IOC) into productive dialogue. Mechanisms to benchmark and monitor progress are in their infancy, but efforts are underway to develop and align reporting frameworks with international systems, such as the NDCs (blue carbon, Seychelles - IE2). The spatialities of the ocean present some important barriers to this governmentalisation of the BE, requiring new tools (e.g. MSP Seychelles; resource allocation mechanisms for tuna. IFP1 & 2; platforms for policy coordination between RECs and environmental institutions. IEP1) and capacities (understanding of the BE; regional policy alignment; national capabilities for implementation). Political spatialities lead to significant although localised resistance often involving disputes over access to natural resources

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[29] Western Indian Ocean Marine Science Association provides independent scientific advice to NC, governed through a Memorandum of Understanding
[30] Regional Maritime Information Fusion Centre

(e.g. LAPSSET[31] corridor/indigenous land rights; Kenya/Somalia maritime border dispute[32]) which influence BE development.

This immaturity was evident from many stakeholder interviews, informants consistently raising issues of capacity as a significant constraint to the implementation of the BE in the WIO Region. AU-IBAR, a technical office of the AU, responsible for preparing a continental BE Strategy and its implementation plan, recognises the practical constraints on institutions at all levels to deliver a sustainable blue economy, "BE is still a relatively new concept on the continent" and "States and economic communities don't know how to effectively harness BE resources" which are "vast but there is a need for cooperation, regionally and interagency, and to collaborate for effective exploitation and utilization of these resources" (IGA1). In the WIO Region, States share expertise to strengthen capacities, through the regional collaboration structures such as NC and IOC. "Seychelles ..... is looked at as a leader .... and has been one of the [training] facilitators to provide examples, to provide information on what we are doing and how we are doing in terms of marine special planning" (IEP2). A fundamental issue is the understanding of what the BE actually is, "We need to focus on the concept, what is the understanding of the different countries, the member states on blue economy issues" (REC1). "BE implementation is not easy. It's complex and multisectoral. Not every stakeholder understands it, or they see it from their own perspective" (BEP2). There is a clear sense of a continental and regional BE project being developed, "Once the policy gaps are identified we need to do some capacity building works to raise the concept of blue economy in each member State to bring [States up to] a parallel level," (REC1). The hope is that the BE paradigm can foster better policy coordination within and between states in the region, that "it will get much more cooperation in those much more powerful ministries and sectors ..... and to realise that management has to happen together rather than separately" (IE3). Support is provided by

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[31] Lamu Port, South Sudan and Ethiopia Transport corridor
[32] Maritime Delimitation in the Indian Ocean (Somalia v. Kenya) https://www.icj-cij.org/en/case/161

international organisations towards regionally agreed goals. The SAPPHIRE[33] project, for example, funded by GEF and implemented through the NC, includes "a capacity building programme to support the process towards improved ocean governance" (IEP1). Some of the challenges of regional coordination and collaboration for the BE are evident in the Joint Management Area arrangements for the Mascarene Plateau between Seychelles and Mauritius, "the two countries do not have the same governance structure. So what we have to do in Seychelles does not work in Mauritius or what Mauritius has to do does not work in Seychelles, ……..we have to make sure that [legislation and policy] sort of marry each other so that when we implement them they are the same in both countries", (IEP3).

Implementation challenges go beyond regional policy coordination. Lack of capacity is acute at national and sub-national levels, "This is one of the major challenges right now - lack of resources – we do not have all the skills required" (BEP2). The IOC and NC in particular have given capacity building a high priority, but it is important for others too, like the IOTC (IFP2), and IGAD (REC1). Thus, regional initiatives aim to address the critical issues for BE implementation, including "building consensus, fostering collaboration, working towards appropriate national and regional standards, legislation, and policy, collating and disseminating relevant information and analyses, and, most importantly, implementing on-the-ground action" (IOC, 2010: 37). National capacities must be strengthened to enable these regional programmes to achieve their goals "...this agreement is not only meant for the regional processes to be undertaken but also for the national processes and national capabilities to be developed." (IEP4). However, results can be patchy, "they come up with very good instruments and so on but then as you know implementation is always at the national level, so if some countries are doing their bits and others are not then it doesn't go very far" (IE4). "At national level there are multidisciplinary committees in some countries, but how effective are

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[33] The Western Indian Ocean Large Marine Ecosystems Strategic Action Programme Policy Harmonisation and Institutional Reforms' project

they? If this national structure doesn't work it will be very difficult for us to move on with the regional structures" (IEP4). States are often open about the capacity challenges they face and their needs for external support: "We are afraid the over exploitation of our marine and coastal resources will continue unabated because of the lack of capacity for effective control and surveillance," (Somalia delegate, Nairobi Convention CoP. UNEP, 2015: 69.). In Seychelles EEZ, having originally agreed to use existing powers the government now recognises that a new legal framework is needed to enable coordinated implementation (INGO2; BEP3).

Spatio-material factors also 'resist' the dominant BE discourse, rendering collaboration especially hard and requiring new tools and technologies to territorialise and inscribe the oceans as a governable space. The migratory patterns of tuna and their intersection with state territories and oceanic systems (e.g. the Somali upwelling, a rich feeding area that attracts migrating tuna shoals) create uneven opportunities for harvesting, leading to conflict over how catch opportunities are allocated, "going back ten years or so when Seychelles was the one that first introduced a proposal for quota allocation..... it recognised historical catch by zone rather than by Flag[34] to say 'well if you caught it in our waters regardless of whether you fly our Flag or not it's our historical catch.'" This proved to be an attractive argument for coastal states so "the coastal states [have remained] fairly unified against the distant water fleets in that position" (FP1). Regulation of fishing vessels by flag state (typically not located in the WIO region), introduces additional complexities into the gathering of statistics and monitoring of stocks, and the enforcement of fishing restrictions (IFP1 & 2). The fluid nature of the ocean, its huge scale and its inaccessibility to scientific study renders it an uncertain space, beset with conflicting knowledges that are appropriated to sectoral aims.

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[34] 'Flag States' hold registries of vessels, under international law. Larger vessels have to register with a Flag State and in doing so are governed by the Flag State laws. In the case of Indian Ocean tuna, for example, Flag States are responsible for monitoring catches of distant water fishing vessels on their register and lodging this data with IOTC for stock assessment and monitoring purposes. Established convention is to allocate catch opportunities amongst fishing nations according to historical catches, which are amassed by Flag States rather than by the countries in whose territorial waters the catch is made. Seychelles is resisting this convention.

Terrestrial spatialities also offer resistance to BE development - the LAPSSET corridor involves the construction of a new port in Lamu, Kenya and associated transcontinental transport corridors (road, rail, hydrocarbons) linking Kenya, South Sudan and Ethiopia, and eventually planned to extend to Uganda, Congo and the west African coast. It is one of Kenya's flagship development programmes, bringing new opportunities and growth to the long-neglected northern Counties (Kenya Vision 2030) facilitated by maritime trade. However, the construction of the first berths have damaged fishing grounds in the Lamu archipelago, resulting in a successful legal action by 'Save Lamu', a coalition of community associations representing indigenous peoples (CAG1). Construction on and allocation of land for development has been dogged by illegal appropriation of property, property speculation, and legal battles by indigenous groups to assert their land rights, sparking ethnic conflict and terrorism (High Court of Kenya, 2018; Anon, 2016; Nyagah et al, 2017). Community resistance has reset relations with government and its agencies: the LAPSSET Corridor Development Authority finds itself liaising more with communities, and negotiating between them and government (PD1); communities better understand their rights and make more effective representations to government (CAG1). Illegal activity at sea (IUU fishing, illegal trade, piracy) represents a threat to development of the BE in the region ("you have to guarantee maritime security so … particular investors can come in and invest [in the BE]," IEP4). This 'resistance' to the international regime (i.e. UNCLOS[35]) has necessitated new, collaborative maritime security infrastructures (see Midlen, in prep.) involving joint surveillance and operations between States in the region (e.g. the international 'Contact Group' on piracy off the coast of Somalia. MS1).

These capacity and material constraints can be understood as 'counter conducts'. Counter conducts are an inseparable component of Foucault's understanding of governance as governmentalities. Power is relational, rather than being possessed or located, and so 'where there is power, there is resistance' (Foucault, 1998: 95). Counter conducts - 'the will not to be governed thusly, like that, by

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[35] UN Convention on the Law of the Sea

these people, at this price.' (Foucault, 2007. Cited in Death, 2010: 236) - represent a resistance to (rather than a revolutionary rejection of) the regime of truth through which the governed are engaged as objects and subjects of government (Cadman, 2010; Death, 2010). Through acts of resistance and moments of protest, such counter conducts bring new identities, subjectivities and collectivities into being (Cadman, 2010), potentially destabilising power relations through, for example, introducing alternative, subaltern or marginalized forms of knowledge which challenge the prevailing norms. The 'Save Lamu' movement, challenging the State's rationality for a major port development (contesting degree of environmental and social impact; challenging land ownership; asserting indigenous use rights) could be said to be a classic counter conduct. The device of a 'Biocultural Community Protocol' (Anon, 2016), documenting traditional use rights, is used to challenge conceptions of the land as 'unused', 'empty', and developable, forcing government to register community land rights, provide compensation, and consult more thoroughly on development proposals. More subtle forms of resistance to the emerging BE governmentality are also evident. Thus, capacity constraints (knowledges, skills, financial and human resources etc) resist the prevailing global BE governmentality rendering it only imperfectly formed in practice, and necessitating new forms of international intervention (training; skills development; infrastructure provision etc). Similarly, spatial and material factors present insurmountable barriers to the governmental rationality that seeks to economise ocean space: commercially important tuna migrate through the region confounding attempts to allocate catch shares between states; coastal hydrodynamic systems respond to port construction and channel dredging in ways that damage artisanal fisheries, threatening livelihoods; illegal trade endangers human and non-human populations and forces new governmental relations (surveillance technologies; collaboration agreements etc) to secure a vast and largely remote BE space. Joseph (2010) questions the reach of global governmentalities, citing States that do not follow the western, neoliberal governmental model and the consequent limitations of the governmental apparatus to be subjectified through a governmentality. In contrast, I argue that in the case of the BE in the WIO the international

community is acting to build governmental structures and capacities, directly and through regional

States, to enable a blue economy governmentality to be enacted. Given the scale of this task and the

resources being directed to it (e.g. US$100m for Kenya fisheries reform), I consider this BE

governmentality to be immature, not yet fully formed and significantly constrained by systemic

counter conducts.

5.0 Conclusion

I have characterised the BE as a dominant discourse and as a form of global governmentality, one

having a strong emphasis on collaboration. I call this a 'collaborative blue economy

governmentality'. It is characterised by a rationality that sees the oceans as a valuable shared space,

rich in resources but under threat from unsustainable use and environmental degradation. The

discourse proffers the BE as a new development pathway for Africa and the WIO region to solve

social ills such as food and livelihood security whilst preserving environmental resources, but for

which States must collaborate to align policy and to reverse environmental degradation. I

demonstrate how the BE discourse produces this collaborative rationality, through policy texts,

regional platforms for policy coordination, and donor-funded capacity building programmes. I

highlight the utopian nature of this discourse, and point to sites of resistance, or counter conducts,

as signs of its immaturity. The spatial heterogeneity of the oceans, their scale, and physical and

biotic complexity resist governmentalisation and demand new tools and capacities for governance of

their use.

The governmental practices deployed in the name of the BE lead to a broad characterisation of this

collaborative rationality as a neo-liberal governmentality, which deploys statistical and inscription

devices to quantify the environment, delimit users and zones of use, and devolve responsibility (to

States and their populations), and which creates blue economy subjects through capacity building

programmes and contractualism. However, examples of community-based co-management,

especially where forms of territorial use rights (eg Kenya, community forest management agreements) protect resources from exploitation by private capital, hint at the emergence of a post-neoliberal regime in natural resource management. Could the climate and biodiversity crises be opening a space for the development of more socially liberal approaches to governance (collective governance, socially just transitions, strong community resource rights), similar to Gibson-Graham's (2008) 'diverse economies' or Fletcher's (2020) 'communal' or 'liberatory' governmentality?

APPENDIX 1

BE discourse in WIO region

The mind map below presents the spatialised governmentality analysis of the BE discourse in the

WIO region.
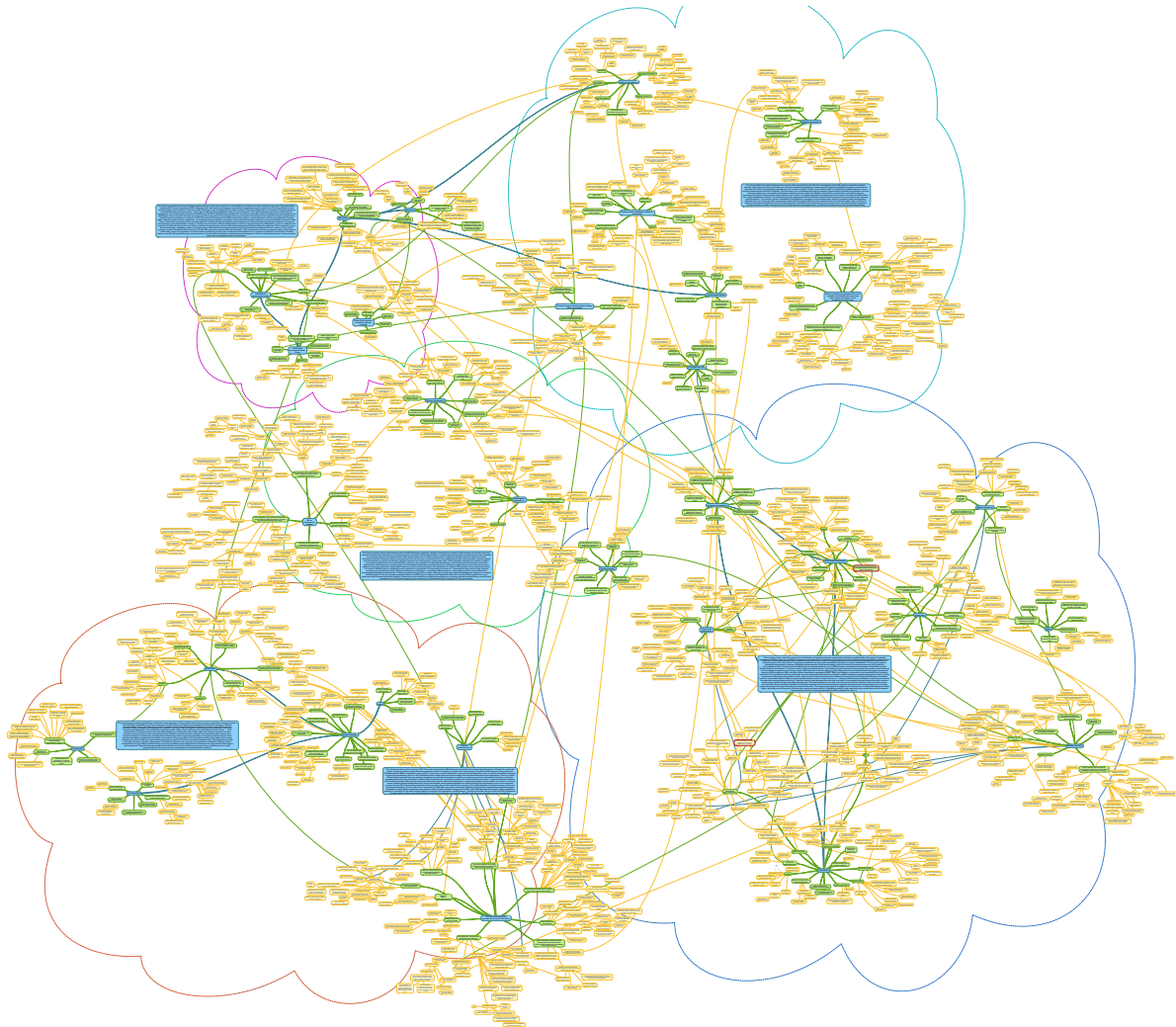
In the following paragraphs I reproduce narritive summaries from the clusters emerging from the

thematic categorision exercise using the mind map (depicted above), to aid its accessibility for the

benefit of the reader. A PDF version of the mind maps is included as supplementary material to

enable detailed inspection.

The Africa and Western Indian Ocean BE discourse leads with the idea of extensive and shared

oceanic resources ('vast ocean territories', 'vast coastlines') and their economic significance (more

than 100 ports in Africa, handling 90% of trade), especially for SIDS: "Massive reefs, vast meadows of

seagrass, and productive upwellings support a profusion of fish long relied on by the island's peoples

and economies." However, the Blue Economy is seen as applying to the whole continent, "Africa is

endowed with a vast network of aquatic resources and extensive interconnected oceans.", being

"part of Africa's rich geographical, social, and cultural canvas." The maritime domain represents a

new frontier for development, and a shared space for Africa to benefit from. The BE is a

development paradigm that can deliver sustainable, resilient development and prosperity for the

WIO Region, whose countries "all share one ocean, and this ocean realm is increasingly seen as a

new frontier for development as a basis for economic growth and to lift lower-income countries out

of poverty." UNCLOS provides the framework for states to assert their rights to marine resources,

and the connectedness of oceans makes 'otherwise distant nations, neighbours', encouraging

improved regional cooperation and coordination through institutions such as the Nairobi

Convention, Indian Ocean Commission and others. A blue economy approach "centred on regional

integration and cooperation has the potential to significantly contribute to economic transformation

and industrialization" aiming to "reverse current trend[s] of continuous degradation of [the] marine

ecosystem and its functionalities". In order to realize the full potential of the Blue Economy, the

"twin issues of climate change impacts and environmental mismanagement must be effectively

addressed. This is imperative, given that the knowledge, adaptation, reforms, and enforcement

mechanisms that are produced will contain opportunities for building resilience, which is, in turn,

key to creating a dynamic and durable Blue Economy." For the WIO region this requires collective

leadership: "If we really want to achieve a prosperous Indian Ocean that can continuously support

the population of over 30 million people living on the coast, we will have to be ambitious in our

approach and bold in our decisions. A healthy Indian ocean will only happen through concerted

actions, founded on bold ambitions, creative and practical measures. Let us be reminded that many of these measures begin with us assembled today in this meeting."

The material character of the WIO region includes a diversity of geological structures and landforms, and ocean currents and upwellings. These support ecosystems, habitats and species of international importance for nature and of strategic importance for the continent of Africa. These "environmental assets" are distributed in spatial patterns or are at scales incommensurate with EEZ boundaries. The discourse is one of celebrated and highly productive systems whose potential (as ecosystem services) is being threatened by unsustainable development, depleting natural capital. The situation for fisheries is elaborated in most detail, with poor governance and global environmental change being of most concern, noting that fish is Africa's leading agricultural export commodity, that WIO nations are 'highly dependent on fisheries' the sector being 'of great importance to African SIDS for livelihood and employment, food security and [as a] foreign exchange earner." The need for regional collaboration is highlighted in recognition of the transboundary nature of important coastal and migratory fisheries. Not only is improved stock management needed, but also greater efficiency and competitiveness and enhanced added value in the sector. Offshore fleets present significant concerns, representing the "most significant and pervasive threats to open ocean and coastal marine ecosystems throughout tropical oceans", raising issues such as who benefits from access agreements, surveillance and enforcement, and systemic illegal fishing.

Strategic development concerns are prominent throughout the discourse, and include infrastructure (roads, ports etc), international trade flows and balances, and improving socio-economic well being (i.e. tackling uneven development). Development pathways have been identified at continental, regional and national scales, with emphasis placed on an 'Africa-centric position' noting that "Despite numerous natural resources, international trade in coastal and marine resources has so far not served as an effective tool for the achievement of rapid and sustainable economic growth and

development for coastal communities" and that a business as usual trajectory "entails great risks". These pathways emphasise the need for a healthy ocean as the foundation of a successful BE. BE is noted as a "new dynamic" for integrated development, and a "pathway to climate-smart, sustainable development", delivering "peace and prosperity" and "continental transformation and growth". Leaders are called upon to commit to BE pathways and to institutional reform. The need for different types of collaboration and cooperation is recognised. Conceptualizing the ocean as "a development space which brings together economy, environment and society", States should pursue a shift from "a commodity-based economy to a value adding, diverse, service-based and increasingly knowledge-based economy." Progress in implementing the BE is evident, although it is seen as early days in a long-term project. Regional strategies are helping to coordinate national priorities. The rate of progress amongst States in the WIO region is highly varied. Seychelles, Mauritius, and South Africa appear to be most advanced, whilst Somalia for example has limited capability. Capacities must be enhanced: strengthening institutions, promoting equitable benefit-sharing, more effective surveillance and enforcement regarding marine resources, and enhanced skills and support for entrepreneurship.

Throughout Africa, livelihood and food security is a significant strategic priority in which BE is expected to play a significant role ("The overall goal of the Blue Economy Flagship is to implement the Feed Africa strategy in fisheries and aquaculture" AfDB, 2018), along with alleviating poverty. Population growth presents significant challenges for future employment and food security of which the oceans are a major source of protein. This is not only with regard to increasing production but also to reducing environmental degradation ("Some 60 million people live within 100km of the coast across the entire Western Indian Ocean ..... This adds pressure to coastal resources and near-shore fisheries as communities rely on those same resources for economic and food security as well as for their social and cultural identity.") Marine ecosystem services "underpin lives and livelihoods in sectors from tourism to fisheries". Infrastructure and trade flows must be improved to supply this

population and export its material outputs. Clear maritime boundaries are important for benefits to be realised. A large proportion of the population needs to be brought out of poverty, a challenge to which the BE can contribute through playing "a major role in Africa's structural transformation". Some population growth is through economic migration. "Emancipation" of women and youth is also a priority. Industrialisation of fisheries, offshore mineral development and improved port facilities bring community benefits through employment and infrastructure improvements that support jobs and growth. Regional trade agreements boost inter-African trade in maritime goods and services, contributing to more rapid progress towards "the socio-economic emancipation and industrialisation of Africa."

The scope and potential of BE sectors are described in varying detail, and certain of its driving forces. Of particular note is the impact of future population growth and social progress in Africa on demand for goods, services and energy ("By 2030, the total primary energy demand in Sub-Sahara Africa is expected to grow by 30%"), and the rise in global demand for foods and minerals especially. The role of ports and maritime transport is afforded high prominence, given its role in facilitating trade, and the socio-economic benefits of associated infrastructure and employment ("Ports are critical infrastructure assets that serve as catalysts of economic growth and development. In addition to playing a key role in international trade, they create jobs, generate wealth and value, contribute to national GDP and promote the expansion of related and near-by industries and cities.").

Improvements are needed in port facilities for greater efficiency and to accommodate larger vessels. Associated institutions to support the logistics sector in Africa are needed. Ensuring offshore mineral developments don't cause unacceptable environmental degradation is a concern, although their development is seen as an important component of the BE ("The extractive industries will be a growing driver of the region's blue economy.") The "industrialisation" of artisanal sectors is seen as a necessary transition. Other notable transitions include to sustainable resource use especially regarding energy and the opportunities presented by marine renewables to meet rapidly expanding

energy demand ("Marine-based renewable energy such as wind, wave and tidal range and currents offers a significant potential to contribute to low-carbon energy supplies for regions with appropriate coastal features."). A range of benefits are seen to flow from BE development, for jobs, wealth creation, structural transformation and "socio-economic emancipation". Economic benefits from enhanced ecosystem services are expected.

Finally, a large cluster emerged from the analysis concerning governance of territories and material resources, and includes institutions established for this purpose. 'Integrated management' (between sectors), 'area based management', and 'international collaboration' emphasise the need for holistic thinking and breaking down barriers (in the case of area based management it is about creating boundaries relevant to ecosystem processes, and transcending administrative boundaries). A particularly salient phrase in the discourse is "Ecologically functional areas may need new political institutions to enable collaboration." The extensive range of international agreements is striking, reflecting acknowledgement of the transboundary nature of marine environmental resources and a collective responsibility for them ("Collectively in the WIO region we are responsible for over 15,000 kilometres of coastline from Somalia to South Africa and the Western Indian Ocean Islands"). These are mostly for environmental protection, but debate (and some action) is turning towards the creation of economic and social development agreements covering a range of BE interests. A collective strategy guides State action for environmental protection and environmental aspects of BE development. Marine Spatial Planning, and other forms of area based management (Ecosystem-based Management, Large Marine Ecosystems, Eco-Regions), are promoted as essential BE tools to balance trade-offs ("It is essential to balancing sustainable use and conservation imperatives and mitigate conflicts and create synergies amongst the users"), and the importance of clear rights and tenures is noted - both to secure livelihoods and private investment ("clearly defined and duly publicized limits of maritime zones are an essential basis for States to derive benefits from the oceans and their resources", "creating a fundamental precondition to attracting investments for

exploration and exploitation activities"). Maritime Security extends beyond the securing of borders

to encompass food and livelihood security, access to resources (protection of rights) and safety

(disaster risk) ("Humankind depends on a safe, sound and secure maritime domain in order to

preserve peace, enhance international security and stability, feed billions of people, foster human

development, generate economic growth and prosperity, secure energy supply and preserve

ecological diversity and coastal livelihoods"). The economic dimensions of conflict and criminality are

of considerable importance in this region, especially concerning piracy, IUU and other resource

access conflicts ("Overfishing and IUU is also depriving many coastal states with the needed seafood

protein and loss of earnings about [$] 2.5 billion in West Africa alone.").

Paper 3: From piracy to sustainable development in the Western Indian Ocean: securing a blue economy space.

Abstract

In this paper I argue that a new maritime order is emerging in response to ocean sustainability challenges – the blue economy – characterised by a plethora of non-traditional security threats. Using the case of the Western Indian Ocean I demonstrate how the creation of *spaces of risk* in response to traditional security threats by world powers has led to a new, regionally-led ocean governance regime – a 'blue economy order'. International efforts to protect shipping lanes from the threat of piracy off the coast of Somalia have evolved into wider security measures. I analyse these changes through the lens of governmentality and argue that this case represents an example of a global collaborative governmentality in which states are responsibilised to act by the international community through discourses of risk. Regional States have turned this to their advantage, acting together to construct and secure a new development frontier. I draw parallels with Foucault's notions of securitisation through surveillance in how States, small regional maritime powers, have collaborated to create a shared blue economy space in an extensive and difficult-to-govern territory.

1.0 Introduction

The emergence of the blue economy (BE) as an ocean development paradigm in the decade since Rio+20 in 2012 has changed the way many states view the oceans. For small island developing states and least developed countries, in particular, the oceans have been reframed through the UN sustainable development goals as a source of future wealth, jobs and economic growth. The Africa Blue Economy Strategy (AU-IBAR, 2019: iii) highlights the continent's "vast ocean territories", and the benefits of BE development for food and livelihood security in the context of a continent expecting a doubling of its population by 2050. The need for a safe and secure maritime domain in order to benefit from the BE is recognised in the Africa Integrated Maritime Strategy ('AIM 2020'. AU, 2012), and the Lomé Charter (AU, 2016) both of which explicitly link Africa's BE to maritime security. In the Western Indian Ocean (WIO) region the BE is seen as a development paradigm that can deliver sustainable, resilient development and prosperity for the whole region, whose countries "all share one ocean, and this ocean realm is increasingly seen as a new frontier for development as a basis for economic growth and to lift lower-income countries out of poverty," (Didier Dogley, then Minister of Environment, Energy and Climate Change, Government of Seychelles. In Obura et al., 2017). The WIO therefore represents a valuable case study of the emerging practice of BE development and what governmental tools and technologies are being deployed. Insights gained from such analysis are globally relevant, and will aid effective implementation of SDG14.

This paper arises from a wider study conducted between 2020 and 2022, in which I address the question of 'What is the blue economy?' and how blue economy discourse has shaped ocean management in the Western Indian Ocean region (Midlen, 2023; Midlen, in prep b). In this paper I explore the securitisation of the WIO as a BE 'regime of practices', using Foucault's concept of 'governmentality' to examine the particular knowledges, technologies and practices through which power is exercised as a contribution to the understanding of power relations in the emerging BE. First, I will explore the nature of 'maritime security', before introducing the concept of

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governmentality and its relation to risk and security. My analytical method and data sources are briefly described, after which I describe and analyse the case in detail. Finally, I discuss what can be learned in relation to how countries with limited capacities can secure a BE space.

1.1 Blue Economy and maritime security

Since its emergence during preparations for the UN Conference on Sustainable Development 2012 (or Rio+20), the BE has received much attention as a new development paradigm purporting to develop the ocean as a source of wealth at the same time as protecting the ocean's natural resources. Silver et al (2015) noted competing discourses at work during the Rio+20 conference as various actors tried to shape emerging global BE policy. The potential to co-opt the BE to suit diverse interests has been noted and the 'social licence to operate' of certain sectors has been questioned (Voyer et al, 2018a; Voyer and van Leeuwen, 2019). Choi (2017: 37) described BE development in China as a 'governmentality', characterising the BE as "a complex governmental project that opens up new governable spaces and rationalizes particular ways of governing." Barbesgaard (2018: 145), considering the implications of the BE for social justice, concludes that rather than resolving the tension between environment and development in the oceans, the BE "recasts control of and access to blue resources, with major impacts on small-scale users, while large-scale, capital-intensive uses continue." Midlen (2021: 423), reviewing cases of BE in practice, draws attention to the production of ocean space through socio-material BE relations, and the material and spatial contingency of its governance – issues that I will explore in more detail in this paper. Voyer et al (2018b) note the co-dependence between the BE and maritime security, linking the creation of EEZs through UNCLOS[36] with the need for coastal and island states to protect their natural assets within these new enclosures of the ocean.

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[36] United Nations Convention on the Law of the Sea

Traditional maritime security encompasses the political imperative to secure empires and spheres of influence, and the economic imperative to safeguard freedom of navigation and so facilitate trade (Otto, 2020). Maritime security has been defined in a negative sense, by the absence of any of a variety of threats prevalent in the maritime domain, or in a positive sense by the preservation of order at sea (Beuger, 2015). As about 90% of the world's international trade is transported on the world's oceans, and since UNCLOS provided for the extension of territorial rights over marine resources through the mechanism of Exclusive Economic Zones (EEZ's), the security of the oceans has become increasingly important politically and economically, calling for an increased and more diverse role for maritime security (Voyer et al 2018b). It is also being recognised as increasingly complex: Bueger and Edmunds (2017, summarised in Otto, 2020) describe four characteristics of the maritime security agenda:

- the interconnected nature of maritime security challenges;

- the liminality of maritime security – that is, that most maritime security problems cannot be understood nor addressed without a consideration of their linkages to challenges on land;

- the transnational nature of maritime security given that the sovereignty of the high seas is shared, with jurisdiction there being international in theory, but also varying depending on the given circumstances pertaining to a threat or incident; and

- that, by extension, the maritime domain is essentially cross-jurisdictional.

Thus, whilst many threats and risks in the maritime domain are known to maritime States, the challenge of developing and implementing effective solutions is considerably greater. That is, "maritime affairs involve cooperation to a degree that does not fit in easily with the staunchly defended concepts of sovereignty and jurisdiction. However, issues of maritime governance transcend national, geographical and political boundaries." (Wambua, 2009: 45). Sustainable long-term solutions may require pooling of sovereignty, adopting consensus decision-making, and delegating some decision-making power to supranational groups (Walker, 2020).

In recent years the understanding of maritime security has developed beyond traditional issues of peace and security to encompass a range of 'non-traditional' security threats. Caballero-Anthony (2016) highlights the more significant consequences of this shift:

- While not rejecting the state as a security referent, it argues for the inclusion of other referents, most notably, individuals and communities.

- It recognizes that threats such as climate change, pandemics and financial crises are transnational in nature and require non-military responses.

- Given that threats have transborder implications, international multilateral cooperation is critical.

- Non-state actors and international institutions are seen as having important roles in the global governance of emerging threats.

As a pertinent example, the AIM 2020 Strategy (AU, 2012) takes a broad approach to defining maritime security threats. Not only does it include more conventional security threats such as transnational organised crime, illegal unreported and unregulated (IUU) fishing and environmental crimes but also natural disasters, cyber-security, poor navigational aids and safety information, and vulnerable legal frameworks. Few non-traditional security threats are existential to the State itself. Rather they are of concern to the general health and wellbeing of their populations and the economy upon which that depends. Thus, threats to livelihoods and jobs, through IUU fishing for example, or marine pollution, become important security concerns. This perspective is apparent in the Africa Blue Economy Strategy (AU, 2019), in which livelihood and food security feature prominently alongside sustainable natural resource management. By contrast, human *in*security becomes a driving factor in the emergence of criminal activities such as piracy or trafficking illegal goods (drugs, timber, arms etc) (Beuger, 2015).

The historian Michel Foucault took considerable interest in security in his analyses of the evolution of government in Western Europe. His insights have been drawn upon to reveal knowledge and power dynamics across many aspects of governance, including security. I draw upon Foucault's work in this study and so introduce his work in the next section and review literature on governmentality at an international level.

1.2 Governmentality, 'the international', and risk

''In contrast to sovereignty, government has as its purpose not the act of government itself, but the welfare of the population, the improvement of its conditions, the increase of its wealth, longevity, health etc.'' Foucault ([1978] 1991:100)

In this way Foucault captures the essence of his genealogy of government in which he traces, from the middle ages to the present in Europe, the evolution of ways in which power is exerted in order to control populations (see Hindess, 2005; Lemke, 2019). He identifies three stages in this journey, which he terms sovereignty, discipline, and advanced liberal government (the latter encompassing neo-liberal government, prominent since the 1980s, as a particular variety). Foucault recognised that at various stages on this journey differing rationalities of thought were applied to the problem of government which were related to how power was deployed. In sovereign government, sovereignty and law were inseparable, power was effected through the rule of law. The object of government was territory. As populations in Europe grew and the State became more concerned with their wellbeing through the maintenance of order, such as controlling outbreaks of infectious disease for example, then the State developed ways to govern at a distance. That is, to shape and guide the conduct of individuals to conform to the priorities of the State through the deployment of tactics, techniques, laws and so on. Thus, populations became the object of governance and the practice of

government became the 'conduct of conduct'. In the C19th and C20th the emergence of 'advanced liberal government' became concerned with the role of the State itself as an institution of government, and to counter concerns that the State was governing too much a move developed to transfer [some of] the practice of government to other institutions - to non-state agencies, to individuals and to markets. Liberalism as freedom came to be seen as a tactic of government, in which individuals and other non-state entities are enabled to exert a freedom of choice, but a freedom with a responsibility to choose wisely. Thus, government is promulgated through the cultivation of responsible self-regulatory behaviours amongst subjects.

Foucault's great insight from this genealogy was to recognise that power operated not through institutions *per see* but through the tactics deployed to control populations:

> " 'Discipline' may be identified neither with an institution nor with an apparatus; it is a type of power, a modality for its exercise, comprising a whole set of instruments, techniques, procedures, levels of application, targets, it is a 'physics' or an 'anatomy' of power, a technology." Foucault 1977: p215.

Foucault coins the term 'governmentality' to refer to these different rationalities of government and the 'anatomies of power' to which they give rise. Subsequent scholars have applied the concept of governmentality in many contexts, beyond that of Foucault's genealogy, and developed various analytics of government on the basis of Foucault's lectures, interviews and writings.

Of particular interest to this paper are the analyses of 'the international' as a site of government. Neumann and Sending (2007), rather than focus on the international *order* as a point of analysis, consider the rationality by which power is applied through specific forms of governmental practices. Thus, they conceptualise the international as 'a socially embedded realm' – a structure defined by

relations of power - generating different and changing practices of political rule through its governmental rationality as it changes through time. A key question in relation to governmentality as an analytical tool of the international is the question of at what or whom is power directed? In considering the question of how States can be the subject of governmentality, Joseph (2009) contends that we should consider governmentality as working *through* States on populations, rather than States themselves being the subject of a governmentality (as governmentality is only concerned with the governance of populations). Nevertheless, this rationality can be used to regulate States. Löwenheim (2008), for example, demonstrates the power of statistical metrics, benchmarks, indicators, indexes and so on to regulate States. These techniques are increasingly used to rank States by transparency and quality of governance, by economic performance, by human rights and many more, and are used, for example, to make decisions regarding development aid, development finance loans etc. Through such rankings States become the object of a power which tends to normalise the dominant international regimes of governance, which follow the form of an advanced liberal character.

The role of risk is an interesting element in this evolution of international governmentality. Jaeger (2010: 65) draws attention to the debates and reforms within the UN system concerning human security and collective security, and the calculation of risk:

> "By objectifying interdependent threats as risks, collective security can operate as an insurance regime; it can invert the meaning of threats, transforming them from obstacles into opportunities for regulation. Conceptualizing threats as risks means that threats no longer constitute discrete, absolute, and existential dangers emanating from an external enemy; rather, they represent serial, graduated, and calculated hazards stemming from the interconnected collective security 'system' itself."

This perspective of risk as calculated hazard renders otherwise existential threats governable by regulation and individual self-restraint. This in turn places responsibility on States to foster the health, wealth and wellbeing of their own populations as a mechanism to mitigate risk (of famine, crime, terrorism etc), *and* to engage in the international system to contribute to a global collective security. For least developed States this implies a responsibility to not only take action to mitigate risks and so protect their 'vulnerable' populations, but also to engage with the international community in doing so (for example to be willing receivers of international support and assistance) (see Jaeger, 2010). In relation to governmentality, a central question is what knowledges are used to classify and to calculate risks, who produced those knowledges, and who sets the benchmarks or targets by which risk mitigation is measured? We see here a globalisation of security, expressed as human security comprising a collection of fundamental rights of populations and individuals, and as a collective security as a 'responsibility to protect' which legitimises States collective intervention (Caballero-Anthony, 2016) in regional conflict, in the suppression of terrorism and transnational crime, or in response to natural or human disasters. 'Good' and 'bad' security as framed by the international community is normalised in the form of specific goals and targets, such as the Sustainable Development Goals.

Regimes based on the calculation and mitigation of risk can be understood as a "set of technologies, rationalities and subjectifications, or, in other words, as apparatuses of security" (Bohle, 2018, p131). As a set of knowledge-power structures, they influence which risk perceptions are enabled and which are restricted and so alter the nature of behaviours and practices. Risk, therefore, becomes a technique for controlling conduct through self-governance, based on a 'calculative rationality' (Castel 1991; Mythen and Walklate, 2006), and which is encouraged through tactics that shift responsibility for behaviour to the subject. In rewarding certain types of behaviour over others, these tactics incentivise individuals, States, or other agents to assume responsibility for their own compliance with behavioural norms that are informed by a liberal rationality of governance

(Neumann and Sending, 2010; Innes and Steele, 2012). The emergence of statistical descriptors of populations plays a significant role in Foucault's genealogy of government, as techniques with which to make populations and their various characteristics visible and therefore governable. Classification, mapping and other calculative mechanisms create 'spaces of risk', e.g. Salter (2008 – cited in Innes and Steele, 2012) identifies aviation as an 'imagined space of risk' for air travellers, made real by statistics on safety and security. Air travellers are responsibilised by means of these statistical techniques to comply, through self-governance, with security measures. The spatial dimension of risk can be represented as cartographic maps, such as coastal hazard risk maps for example which represent complex calculations pertaining to topography, predicted sea level rise and degrees of storminess etc. Müller-Mahn and Everts (2013) introduce the concept of 'risk-scapes' bringing together relational and cartographic 'mapping' of risk, including perceptual and institutional elements as well as natural factors and their spatial location.

Foucault considered that the essential challenge of security was that of managing circulation (of people, of goods, etc), security being effected through biopolitical practices of "organising circulation, eliminating its dangers, making a division between good and bad circulation, and maximizing the good circulation by eliminating the bad" (Foucault 2007: 18). The management of circulation requires surveillance – the ability to make circulation visible and observe its patterns. Inspired by social reformer Jeremy Bentham's design for an ideal prison, which was designed to allow constant, covert observation of prisoners, Foucault developed particular insights regarding surveillance that provide a valuable analytic lens for studies of governance and security. The Panopticon was not a design for an ideal prison in Foucault's eyes but a system of surveillance in which subjects are conditioned into good behaviour, being constantly under observation. Foucault's 'inverted panopticon' (Bentham: watching; Foucault: being watched) represents "a landscape that could at any time impart in an individual a likelihood of surveillance" (Elmer, 2012, p24). Panoptic surveillance then, is an important component of governmentality – the constant likelihood of

surveillance acting on subjects to condition their behaviours to adhere to prevailing societal norms. I will return to these concepts in the case of the WIO, but first outline the methodology used in this study and then describe the results.

2.0 Method

Dean (1999) applied Foucault's thinking to develop an analytics of government, proposing (in its simplest form) a three point framework. That is, to understand how the need for government is problematised (or framed) what utopias or visions are consequently used to garner support from the population, and what regimes of practices are deployed to operationalise government (Russell and Frame, 2013). This framework was combined in this study with a place-space-time framework based on Malpas (2012) to provide a spatialised governmentality analysis of the WIO blue economy discourse and practice (see Midlen, 2021 for details). This analysis was undertaken as part of a wider discourse analysis of governance of the blue economy in the WIO region. Policy documents, reports and web-based resources were analysed, and key informants interviewed (semi-structured interviews, online) between April and June 2021.

The overall study addressed the nature of the BE as a development paradigm and governance tool. Maritime security was revealed in the discourse analysis as a key factor in the problematisation of ocean governance as blue economy. Consequently, further research was undertaken to explore the origins of BE securitisation in the WIO through an extension of the original discourse analysis, drawing upon published resources available on the internet (referenced in the text) and a small selection of key informants (see table 1).

Table 1. Coding of key informants

Organisation	Expertise	Code	Date of interview
Government of Seychelles, Ministry of Internal Affairs	Maritime transnational organised crime	GoS	29.04.2021
Indian Ocean Commission	Regional collaboration for ocean governance	IOC	15.05.2021
AUDA-NEPAD	Blue Economy policy	AUDA	12.04.2021
RMIFC	Maritime crime and surveillance coordination	RMIFC	27.05.2021
Contact Group on piracy off the coast of Somalia	Coordination of maritime security	CGPCS	22.04.2021

3.0 Findings

3.1 Evolution of maritime security in the WIO

The Western Indian Ocean, and more specifically waters off the coast of Somalia, came to international prominence in 2007 after a rapid increase in piracy incidents in which merchant vessels were captured and, along with their crew, held to ransom. These incidents continued to increase in frequency through to 2011, when a peak of 237 incidents was recorded, after which they quite rapidly declined. At times dozens of ships and hundreds of crew were being held by pirates. These events were the result of a complex array of factors: the collapse of the Somali State in 1991, resulting in internal conflict, economic collapse, unemployment and poverty; the illegal fishing over many years by foreign vessels of Somali waters due to the inability of the State to secure the fishing grounds within the EEZ, so depriving Somali fishers of resources and income; the alleged illegal dumping of toxic wastes in Somali waters, again in response to the absence of protection and

enforcement capabilities (see: UNEP, 2005; UN & World Bank, 2007; Sorenson, 2008; World Bank, 2013; Glaser et al. 2015; Environmental Justice Atlas, 2021). A UN Security Council Resolution in 2008 triggered a range of responses from the international community which emerged, I contend, in two phases: Phase I 'Rapid response'; Phase II 'Long-term response'.

Phase I (see Appendix I) commenced with a Security Council resolution (#1851) in 2008 calling for the establishment of an international cooperation mechanism with regard to anti-piracy measures, including for information on piracy. Further, States were urged to develop avoidance, evasion and defensive best practices for shipping in the region. This triggered a number of voluntary actions in response: the US, EU and UK established Naval task forces; States agreed to cooperation in arrest, seizure and rescue operations and to build capacities (through training etc) through the Djibouti Code of Conduct (DCoC) (2009); an international 'Contact Group' was established, involving a wide range of stakeholders, to act as a forum for discussion and alignment of actions and resulting in Transfer Agreements and Best Management Practices to be applied to a delimited High Risk Area. The Insurance industry established its own risk area, the Listed Area for war risk. The Phase II response (Appendix I) represented a shift from piracy alone to wider security concerns: the Jeddah Amendment to the DCoC redefined security as applying to any 'illicit maritime activity'; the EU funded the implementation of a Regional Plan of Action which had been first developed in 2010, leading to the establishment of a 'Maritime Security Architecture' comprising two centres: a Regional Maritime Information Fusion Centre[37] (RMIFC) in Madagascar and a Regional Coordination Operations Centre (RCOC) in Seychelles, staffed by the seven States which are party to the agreement.

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[37] https://www.ifc.org.sg/ifc2web/app_pages/User/commonv2/commonIndexv7.cshtml Accessed August 2023

3.2 Spaces of risk

In determining how to respond to piracy in the WIO region, in my analysis, the issue has been 'problematised' by key actors as the emergence of *spaces of risk* which need to be securitised so as to maintain order at sea. The 'order' to be maintained has evolved from a traditional maritime order (the 'International Rules Based Order' prioritising peace, and security for trade and mariners) to what I term a 'blue economy order' in which ocean spaces have been reterritorialized as economic spaces which need to be secured against an array of criminal and environmental threats in order to minimise risks to economic growth.

Table 2: **Spaces of risk.** Sources: BMP5; IMO[38]		
Area	Regime/Technlogy	Responsibilities
Voluntary Reporting Area (VRA). The VRA represents the beginnings of a shift from Sovereign surveillance - naval powers patrolling the seas (CTF151) - to a system in which subjects (Merchant Vessels) start to discipline their own behaviours, by reporting on their movements, on perceived threats, and undertaking to respond to piracy risk reports and alerts. This space is created by naval powers in response to a widely dispersed threat of piracy, in which the subjects themselves are enrolled to contribute to the regime by gathering and sharing knowledge.	• UKMTO Reporting regime – daily transit position, incidents and suspicious activity • MSCHoA Registration scheme (itinerary and vulnerability related information) and issuance of risk assessment reports (combined intelligence from CMF, UKMTO and EU NAVFOR) by means of online platform • Operationalised Maritime Security Transit Corridor (MSTC) through which vessel movements are coordinated by MSCHoA. Includes the Internationally Recommended Transit Corridor (IRTC) through which group transits and national convoys may be offered • CMF CTF151 Maritime Security Transit Corridor surveillance and protection • UKHO Maritime Security Chart Q6099	• Combined Maritime Force (CMF) – security operations • UK Maritime Trade Operations (UKMTO) – vessel monitoring and risk assessment • Maritime Security Centre Horn of Africa (MSCHoA) – vessel monitoring and risk assessment (part of EU NAVFOR) • Vessel owners / Masters – applying best management practices including reporting and on-board security measures
BMP High Risk Area[39]. In contrast to the VRA, this is an industry- (i.e. subject-) led initiative with the clear aim to promote self-discipline amongst merchant vessels in such a way as to mitigate risks arising from piracy in line with the strategy of Maritime Powers to combat the piracy risk and related threats to the global shipping industry. This space is constructed by the subjects, at the request of maritime powers (through UN Security Council resolution	The High Risk Area (HRA) is an industry defined area within the VRA where it is considered that a higher risk of attack exists, and additional security requirements may be necessary Best Management Practices (to deter Piracy and Enhance Maritime Security in the Red Sea, Gulf of Aden, Indian Ocean and Arabian Sea) should be applied by vessel owners and Masters,	Vessel owners / Masters – applying best management practices including reporting and on-board security measures

S/RES/1851 and Contact Group on Piracy off the Coast of Somalia, CGPCS). It responds to the specific threats of vessel capture and ransom, to crew safety, and of economic losses incurred in mitigating these risks.	including: threat and risk assessment, planning, ship protection measures, reporting. Lists 'common understandings' (codifying definitions) for use in reporting attacks and suspicious activity	
Joint War Committee Listed Area. This risk space is created by the insurance industry. It requires merchant vessels to notify insurance underwriters of intent to transit the specified area, which is similar but not exactly congruent with the HRA. The aim is to enable the insurers to mitigate their own underwriting risks in relation to piracy (theft, damage, ransom, harm to passengers and crew, operational losses) by imposing conditions upon the insured subject, either high premiums to reflect higher risk, or the implementation of mitigation measures, or some combination of the two.	The Listed Area is an area of perceived enhanced risk on behalf of insurance underwriters. Ships entering the area are required to notify their insurers. Mitigation measures apply on a case by case basis.	Vessel owners – notification of insurance underwriters and application of required mitigation actions

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The initial international response to the threat of piracy marks 'Phase I' of the securitisation of the WIO, characterised by the construction of multiple distinct but interconnected spaces of risk (Table 2: the Voluntary Reporting Area, High Risk Area, and Listed Area) amounting to a 'territorialisation' of the ocean. Each space is the product of specific regimes of practices directed at shipping, comprising monitoring, surveillance and classification (reporting, risk assessment, requirements to take measures), and technologies (practice guides, private armed security teams, online platforms, coordination centres) for reporting, sharing information and taking action. These spaces of risk transcend sovereign territory (EEZs) and are 'voluntary' in nature (i.e. none are effected through any legal agreement). Authorisations (e.g. S/RES/1851) and Agreements (eg Djibouti Code of Conduct) make provision for joint or transnational operations against piracy. The spaces and their relations are inscribed and codified in maritime security charts (eg UKHO Q6099. See figure 1), an essential navigational tool for shipping which communicate information to merchant and fishing vessels in a familiar form and to which vessel Masters are trained to respond. These charts inscribe the zones, and codify the conducts expected of vessel owners and Masters to register their movements and to report incidents to naval forces. Risks are classified by zone (present/absent), nature of threat (suspicious activity, attack / piracy, terrorism, conflict-related), and by frequency and season (monsoon etc). Risk assessments are made by Maritime Coordination Centre – Horn of Africa (MSCHOA, part of EU NAVFOR) and Combined Maritime Forces (CMF) and released as 'Industry Releasable Threat Assessments' (IRTAs), to aid general risk management, and 'Industry Releasable Threat Bulletins' (IRTBs), which cover specific events. For example,

"The threat to merchant and large fishing vessels transiting the Red Sea, BAM, GOA and the Western Indian Ocean :

a. From piracy is LOW (an attack is unlikely).

b. From conflict-related activity is MODERATE for KSA- and SLC-flagged vessels (an attack is possible but unlikely) and LOW for the others. The threat against vessels of any flag operating from or to ports operated by actors in the Yemen Conflict is considered MODERATE.

c. From terrorism is LOW (an attack is unlikely)[40]"

The assessment report goes on to reinforce the importance of the regime of practices to which it ascribes success:

"It is assessed that Piracy is currently DETERRED / SUPPRESSED (but not eradicated) due to:

a. Widespread implementation of Best Management Practice (BMP).

b. The embarkation of PAST [private armed security teams on vessels].

c. The continued presence and monitoring of CMF, EU NAVFOR, other warships and maritime patrol aircrafts in the region.

d. The prospect of a prison sentence for pirates.

e. The adoption by former pirates of lower risk, yet profitable, criminal activities such as smuggling.

f. Improvements in the capabilities and competence of Somali maritime security forces, such as the Somaliland Coast Guard."

Nevertheless, the continued presence of risk is reiterated in the report, reinforcing the need for continued observance of the recommended practices: "the causal factors of piracy still endure in Somalia and include but are not limited to: poverty, unemployment, the lack of effective governance, corruption, conflict, illegal fishing and over-fishing." Criminal networks still retain the

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[40] Extract from IRTA 1st December 2020, issued by CMF and EU NAVFOR

capability to mount attacks, and "it is possible that piracy could re-emerge if some or all the following conditions are met:

a. The shipping industry ceases to fully implement BMP or embark PAST following an owner's vessel risk assessment.

b. There is a significant decrease in the presence of warships and local maritime security forces in the area.

c. The decline in economic and political situation persists, further exacerbating poverty and instability in Somalia and the wider region due to COVID-19, famine, the ripple effects of flooding and locust infestation."
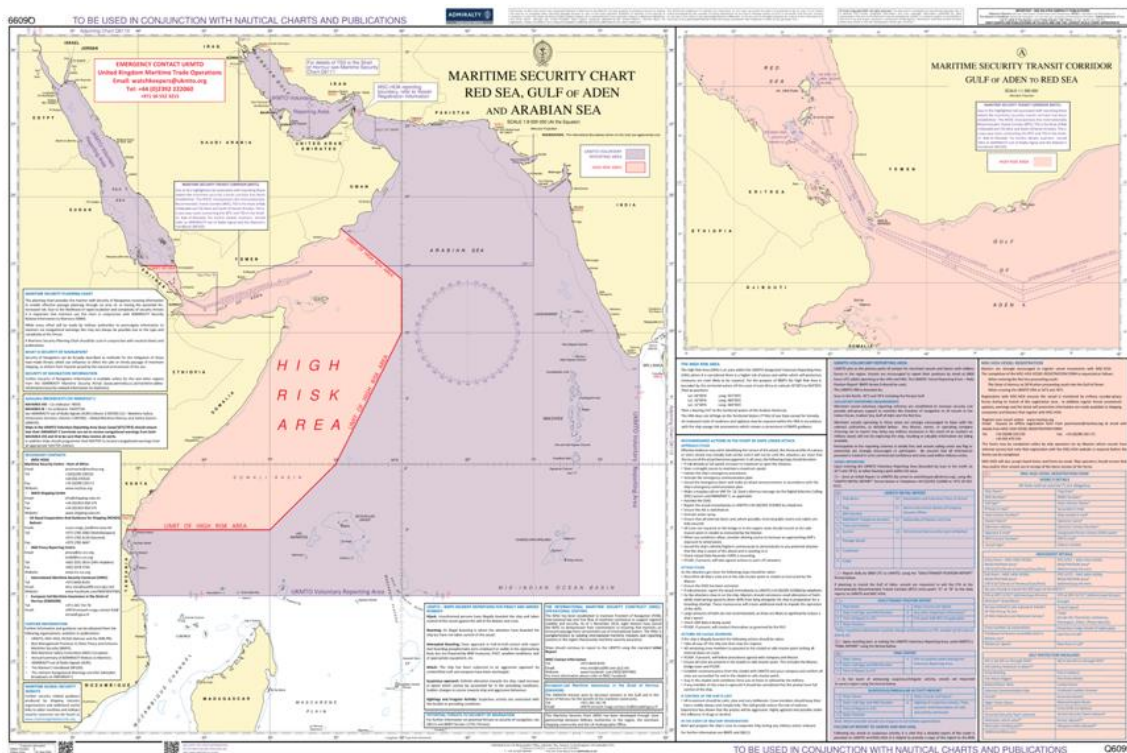

Figure 1. Maritime security chart UKHA Q6099, which inscribes certain practices in relation to the respective areas of risk the it defines. Copywrite UKHO (with permission)

Phase II of the securitisation of the WIO is marked by a more regionally-led response and a broadening of focus to an array of transnational and environmental threats. The reduction of piracy

incidents came at the expense of an increase in other forms of criminality, as pirates used their now

powerful criminal networks to exploit less risky forms of transnational criminality (trafficking drugs,

arms, and people. Mohabeer and Sullivan de Estrada 2019; IOC, 2021). This was in response to new

factors outside the region, as well as anti-piracy measures. For example, the emergence of Afgan

opium trade routes through Pakistan fed an East African coastal trafficking route (GoS, 2021). This

had ramifications at the State level: "in 2013 when piracy started declining we invested our efforts in

[tackling] other … transnational organised crime, namely drug trafficking, human trafficking, human

smuggling, small arms trafficking, and also in the domain over charcoal trafficking between Somalia,

Kenya and towards Europe. So we've grown our mandate from purely anti-piracy to other

transnational organised crime (GoS, 2021).

In the second phase of securitisation, the regional States become the subjects of a security

governmentality, being 'responsibilised' to take action to secure their territories and the resources

within them against a variety of criminal acts and other incidents. A first step in responsibilisation

was the agreement by two regional States (Kenya and Seychelles) to receive prisoners from

international forces (legitimised through Transfer Agreements) for prosecution, to overcome

difficulties that countries from outside the region faced when they apprehended pirates: "the

developed countries couldn't do anything about it [prosecuting pirates] .... even if you take

prisoners, they [western States] can't do anything so they put lots of pressure on the countries in

this region to prosecute those Pirates" (IOC, 2021).

3.3 A blue economy shift….

A second and much more significant step, I argue, was the negotiation of the EU funded MASE

(*Ma*ritime *Se*curity) programme, in which the object of securitisation was broadened from piracy to

a wide range of transnational crime and environmental threats across a more extensive ocean space.

The rationale for this strategy was explained as follows: "what other things politically can motivate [States in the region to collaborate on security]? First, ... the blue economy - you have to guarantee maritime security to attract investors" (IOC, 2021). That is, there are important social and economic issues that need attention, such as drug trafficking, risks to tourism and fishing, illegal charcoal trade, terrorism (financed through such activities), etc to enable blue economy development. A programme of measures was developed by regional States, through the IOC, and responsibility for implementation taken by regional organisations (the Regional Economic Communities and IOC) with support from the international community, thus reversing leadership roles from Phase I. The wider perspective on the Continent was changing, "it was an opportune time to drive the momentum towards blue economy..... to link it [safety and security] to development opportunities" (AUDA, 2021), providing impetus to this shift.

Thus, an Eastern and Southern Africa and Indian Ocean (ESA-IO) Ministerial conference in October 2010[41] marks the start of the second phase of securitisation of the WIO region. A three-point strategy (the Regional Strategy and Regional Plan of Action) was agreed which provided for a regional framework to prevent and combat piracy and promote maritime security (comprising: Somalia Inland Action Plan; prosecution of pirates by regional States; strengthened capacities of regional States to secure their maritime zones). This strategy was to be implemented jointly by the member States in the region and by the Regional Economic Communities (the RECs). Support was requested from international partners, leading to the strategy being translated into a 5-point programme agreed in 2016, which addressed land based factors contributing to transnational crime including poverty and conflict, legal frameworks for prosecution of criminals and their financiers

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[41] Joint Communiqué from the Eastern and Southern Africa – Indian Ocean Ministers and European Union High Representative at the 2nd Regional Ministerial Meeting on Piracy and Maritime Security in the Eastern and Southern Africa and Indian Ocean Region. 7th October 2010, Grand Bay, Republic of Mauritius
https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/EN/foraff/116942.pdf

(which included harmonisation of laws and efforts to prevent money laundering), and information sharing and coordination of operational activities.

At the same time, the new BE concept was focussing attention on economic exploitation of the oceans and the need for a safe and secure environment to do so, being explicitly recognised in the Africa Integrated Maritime Strategy (2050 AIM Strategy) of 2012, the Lomé Charter (2016) and the DCoC Jeddah Amendment. The 2050 AIM Strategy introduces the notion of a combined maritime space, the African Maritime Domain or AMD. The strategy assigns a range of threats to this space (e.g. transnational organised crime; IUU fishing; vulnerable legal framework), and highlights consequent risks, ascribing the potential for : "mass casualties and ... catastrophic economic harm to African States" and asserting that "As the actors threatening Africa's maritime domain continue to grow in number and capability, there must be a corresponding African endeavour to address these at the national, regional and continental levels" (2050 AIM Strategy, p10-11).

Like the 2050 AIM Strategy, the Lomé Charter and DCoC Jeddah Amendment explicitly link maritime safety and security with blue economy, the latter representing a policy to reduce crime and terrorism through improving livelihoods of coastal communities by protecting marine resources from illegal and over-exploitation, and developing them to create jobs and improve livelihoods.

3.4 New Maritime Security Architecture

The new maritime security architecture involved the establishment of two new centres, coordinated by the IOC, to enable collaborative management between States of a new, extended space of risk, the 'RMIFC General Area of Interest', extending from the Cape of Good Hope north to the red sea and straits of Hormuz and west to the southern-most tip of India. The Regional Maritime Information Fusion Centre (RMIFC) located in Madagascar, and the Regional Centre for Operations

Coordination (RCOC), located in Seychelles, are each backed up by national centres run by the seven regional States currently party to the MASE Regional Agreements. The importance of national capacity building was not overlooked – national capabilities limit the efficacy of the regional institutions so "we are getting the countries to reform the way they are addressing their capacity to manage the oceans in the EEZ"(IOC, 2021).

The two regional centres coordinate surveillance, information collation (or fusion) and analysis, and control and enforcement operations respectively. Each is staffed with International Liaison Officers (ILO's) from each of the seven signatory States to enable efficient information exchange and validation. Each ILO is connected to their respective national maritime surveillance centre. The RMIFC comprises a 'watchfloor' on which ILO's surveil shipping activity and analyse information, using a suite of digital tools (e.g. web-based maritime coordination and information-sharing tools; AI-powered behaviour-at-sea analysis) with the objective of producing actionable intelligence. Control and enforcement activity reinforces the discourse of universal surveillance amongst subjects. The watchfloor is staffed 24/7 by ILOs tracking vessels from journey start to finish, on a bank of monitors. Any unexpected stoppages, route deviations, or liaisons between vessels are investigated, first attempting to establish contact with the ship, if "the ship does not answer and now we find another ship coming close to her… it becomes a direct suspect….. something wrong is going on." The relevant State is informed and requested to take action (RMIFC, 2021). Officers have access to international databases and vessel tracking systems providing a summary of the vessel's name, Flag State, registration numbers, cargo, ports of origin and destination etc. enabling background checks to be made. If further information is needed the Centre can request real time satellite images, for example. "So in this process we get whatever is required in case we are able to intervene to arrest, bring to port, and make a legal case, and follow up for court procedures" (RMIFC, 2021).

4.0 Discussion

I argue that the evolution of maritime securitisation in the WIO through two phases represents a case of global governmentality in which regional States are responsibilised to take action to mitigate security and economic risks. This move is made possible through the creation of spaces of risk, bolstered by effective risk discourses. However, I also argue that from the initial securitisation evolves a *collaborative* governmentality (Midlen, 2023), in Phase II, as States work together to meet their wider strategic goals through the securitisation of the ocean as a shared economic space in support of a blue economy. This represents a paradigm shift from peace and security based order to what I term a 'blue economy order'. This collaborative governmentality enables the regional States to overcome capacity constraints and so more effectively create a shared BE space and collectively manage risks to its security.

A crucial technology in this shift was the development of a system of panoptic surveillance. Initial, more or less *ad hoc,* responses to the threat of piracy off the coast of Somalia constructed multiple *spaces of risk*, each characterised by specific technologies and practices which performed a disciplining function on merchant and fishing vessels operating in the region. In developing a collaborative governmentality regional States reterritorialized the WIO through the creation of a single centre of control (the combined RMIFC and RCOC) encompassing previous spaces of risk within its purview. This panoptic centre is made possible by and relies upon digital technologies of surveillance and communication to overcome the challenges of monitoring and control over a vast and almost empty ocean space but one with complex institutional relations (sovereign territory, free navigation, international maritime powers, transnational organised crime).

4.1 Spaces of risk and discipline governmentality

Applying Dean's (1999) analytical framework, the new maritime security architecture problematises the BE as a space of risk as well as of opportunity, risks arising from the threats posed by

multinational crime, terrorism, IUU fishing, maritime incidents (e.g. oil spill) and extreme natural events. The 'utopian vision' for responding to these solutions is a collaborative effort between States to securitise the ocean as an economic space, so enabling development of a BE. The new maritime security architecture represents a regime of practices that responds to these threats through a collaborative approach to overcome State's individual capacity challenges regarding knowledge (intelligence) and enforcement.

New ocean spaces were problematised through a discourse of risk – risk of high and continued insecurity (e.g. UNODC, 2010) due to the complex political factors in Somalia fuelling the rise of piracy. Data on the frequency and location of pirate attacks and reports from naval forces, the insurance industry, and vessel owners describing incidents of boarding, hostage taking, and ransom demands made the threat of piracy visible and the consequent risks calculable. Given economic losses by companies and damage to regional economies, pressure built for action. Reports to and debates at the UN Security Council solidified the risk discourse:

> *"Continuing to be gravely concerned by the dramatic increase in the incidents of piracy and armed robbery at sea off the coast of Somalia in the last six months, and by the threat that piracy and armed robbery at sea against vessels pose to the prompt, safe and effective delivery of humanitarian aid to Somalia, and noting that pirate attacks off the coast of Somalia have become more sophisticated and daring and have expanded in their geographic scope, notably evidenced by the hijacking of the M/V Sirius Star 500 nautical miles off the coast of Kenya and subsequent unsuccessful attempts well east of Tanzania,"* (S/RES/1851, 2008)

Similar discourses were presented by the IMO, for example in November 2007 (Resolution A.1002(25), IMO 2007). Such discourses led directly to the establishment of the many *ad hoc* (but

not uncoordinated) international initiatives in late 2008 and early 2009 which resulted in the creation of specific spaces of risk, the VRA, HRA, and Listed Area and their associated technologies and practices of control.

The practical effect of these regimes was to inculcate a risk-awareness amongst vessel owners and Masters leading to them take action to mitigate risk, and so lessen the international impact of piracy on security and trade. From the governmentality perspective we can see the production of risk-aware subjects through statistics (e.g. on frequency of attacks), technologies (e.g. registration systems and communication channels for risk alerts) and practices (e.g. application of Best Management Practices, which include risk assessments). Thus, subjects calculate risk and adopt mitigating behaviours, without these being forced upon them by sovereign powers - merchant and fishing vessel owners and Masters are being 'responsibilised' to take action to reduce their vulnerability to pirate attack. For the naval forces attempting to counter the threat of piracy over a very large ocean space, these practices and resultant behaviours enable them to 'govern at a distance' and provide more effective security. These factors are all evident in the following statement produced by the CMF[42]:

> *"Operating in these waters requires thorough planning and the use of all available*
> *information. The maritime threat environment is dynamic; the risks will not remain constant*
> *for subsequent visits. It is essential therefore, that Masters, Ship Security Officers and*
> *Company Security Officers carry out detailed Risk Assessments for each voyage to the region*
> *and for each activity within the region.*
>
> *All vessels transiting the Gulf of Aden and Bab Al Mandeb should follow the guidance of*
> *BMP5 to the maximum extent possible and consider the use of embarked armed security.*

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[42] https://combinedmaritimeforces.com/maritime-security-transit-corridor-mstc/ Accessed August 2023

Recent piracy attacks in 2017 serve to emphasise the importance of robustly following this guidance.

This guidance is in no way directive. The use of the IRTC[43], MSTC[44], BMP4, armed security, shifting transit times, or any other defensive measures remain the sole decision of the vessel operator based on its own dedicated risk assessment and the requirements of the flag state."

Further, registration to transit the VRA enrols subjects in *surveillance* of the risk spaces and the reporting of incidents and suspicious behaviours, assisting the naval forces to police the region efficiently.

4.2 Global governmentality

A global governmentality can be seen at work in the securitisation of the WIO, with traditional maritime powers first responding to the threat posed by piracy to global shipping and trade, then responsibilising regional States to design and implement a new maritime security architecture and assume responsibility for its operation. This move required a shift in the problematisation of the need for government in the WIO, from peace and security in relation to shipping to a wider concern regarding the securitisation of the ocean as a shared economic space to enable the development of the BE. We see this rationality in statements from key players in the region, the EU and the IOC:

"The EU understands that the oceans, and in particular the Indian Ocean, are not only a shared space but also a shared responsibility.….. Sustaining the progress made so far means that we need to support our partners in the Indian Ocean in building their own capacities."

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[43] Internationally Recommended Transit Corridor
[44] Maritime Security Transit Corridor

Statement by M. Neven Mimica, EU Commissioner for International Cooperation and

Development (IOC. 2019: 11)[45]

"The recent events [with three acts of piracy off the Somali coasts after five years of calm], reminded us that maritime insecurity remains a major challenge in the Western Indian Ocean. That is why we must not slacken our efforts." In addressing a broad range of threats *"The added value of the EU-financed MASE Programme lies in the fact that it is covering all aspects of maritime security and safety*". Statement by Hamada Madi, Indian Ocean

Commission's General-Secretary. April 2017[46]

Piracy, especially after the frequency of attacks had subsided, was a more marginal concern to the

WIO States. However, the BE had become a significant priority, and for some States threats to it

were seen as existential risks. For Seychelles, for example, tourism and fishing are the main pillars of

the economy. Threats to the emerging BE of the region are more salient, I argue, to regional State's

current social, economic and environmental concerns than the more remote and now infrequent

piracy attacks in the north of the WIO. Wider social, environmental and security concerns are also

important and whilst not necessarily recognised as BE sectors, certain criminal activities perpetrated

at sea are also of sufficient concern as to mobilise action by regional States. Pragmatic moves to gain

agreement of regional States to receive and prosecute apprehended pirates, also have the effect of

responsibilising regional States to engage with the international counter piracy effort. Actions

funded by MASE and other programmes that strengthen national legal capacities (sharing of

knowledge and experience; harmonising national legislation with international law) to respond to

piracy threats are operationalised through bilateral Agreements (Transfer Agreements).

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[45] https://www.commissionoceanindien.org/wp-content/uploads/2019/09/MASE-Magazine-complete-Eng-Digital.pdf
Accessed August 2023. It should be recalled that the EU has a direct stake in the region, on account of the French overseas
territories Réunion and Mayotte.
[46] https://igad.int/mase-programme-a-regional-response-to-maritime-insecurity/ Accessed August 2023

4.3 Collaborative governmentality

There is a further aspect of governmentality at work in these events, a *collaborative*

governmentality. It differs from a global governmentality in which an international order 'disciplines'

States to conduct themselves in a certain way, in this case through discourses of risk. The rationale

of a collaborative governmentality (see Larsson, 2019), in this case, arises from a recognition that

the sea is a shared space (notwithstanding territorial enclosures - the objects of security and

governance in this instance are largely unconstrained by these artificial boundaries) and that its

governance must be a shared endeavour. Considering the ocean as a shared space is to recognise

the material connections inherent in the ocean environment and through the action of ecosystem

processes, and as a space of free navigation and trade. In a collaborative governmentality subjects

act together independently of a higher authority, driven by a shared interest, be it at State,

International or some other level. However, this apparent decentring of power is not to diffuse or

lessen it. On the contrary, collaboration allows, in this case, WIO States to project power over the

maritime domain more effectively than their individual capacities would allow, and over a

considerably larger area than their sovereign powers over their individual territories would permit:

"the scarcity of resources, both humans and physical assets, is cause for us to collaborate amongst

each other so that we can better deliver on the different objectives of what the country really needs"

(GoS, 2021)

The new 'General Area of Interest' for RMIFC reterritorialized the WIO, reshaping the WIO region as

a space of surveillance and calculation in which a higher than before level of observation, knowledge

sharing and analysis enables more effective tackling of transnational crime through joint operations

amongst regional States. It is becoming a governable space with threats against the blue economy,

rather than piracy alone, being the object of securitisation. The motivation for regional States is clear:

> "you cannot push for developing the blue economy if the maritime security is not at a certain level.......so that is the main reason for the countries to join [the RMIFC]" (IOC, 2021).

4.4 Panoptic surveillance

I argue in this paper that the new maritime Security Architecture of the WIO represents a panoptic surveillance system comprising material practices and technologies of surveillance, calculative practices, and digital surveillance tools.

At its simplest level panoptic surveillance aims to achieve discipline amongst a population of subjects. Living under the possibility of 24hr surveillance, subjects moderate behaviour to conform to expected norms and minimise risk of censure through infraction of those norms:

> "if we monitor .... then the vessels know that they are being monitored ... so that will drastically reduce [illegal activity]...... all the challenges that we have in the oceans now [are included]" (IOC, 2021).

In contrast to Bentham's panoptic design, which relied upon clear sightlines between the observer and the subject, the essential challenge of maritime security is in overcoming the practicalities of observation over vast areas of almost empty sea. Digital technologies are fundamental to the ability to surveil such large areas and they make possible the maintenance of an order at sea, both in EEZs and on the high seas. In the WIO new maritime security architecture a number of specific technologies are used. SAT-AIS tracks shipping movements and overcomes the shortcomings of land-

based radar systems that cannot see over the horizon. Satellite photography and remote sensing render every part of the ocean space observable. Various web-based platforms enable information sharing, analysis, visual presentation, and coordination of control and enforcement activities. Trend analysis makes threats visible, enabling them to be categorised as risks and quantified (probabilities of threats becoming reality) and in turn justifying securitisation. The maritime panopticon then is a fusion of sea power (naval, coastguard), digital surveillance technologies, and legal mechanisms (Transfer Agreements etc) to monitor and control security threats, to mitigate security risks, minimise security incidents, and so securitise the BE.

5.0 Conclusion

Analysis of maritime security through the lens of governmentality reveals the important role of tactics and technologies for maritime governance and the exertion of maritime power by small States to secure BE potentials. Hampered by capacity constraints, small maritime States in the WIO have employed a combination of digital surveillance technologies and [mainly small scale] sea power to monitor and control a vast ocean space. This 'collaborative governmentality' has enabled small maritime powers in the WIO region to exert control, to project power over an extensive collective territory, and to secure their shared ocean space more effectively than would have been possible if each worked alone.

A key technology in this effort was the creation of spaces of risk through processes of inscription (delimitation of risk areas on maps) and codification (specifying expected behaviours) that acted on subjects (vessel owners and Masters) to inculcate a risk-awareness and to adopt behaviours to mitigate risks from piracy. Discourses of risk were deployed as disciplining tactics by world powers to responsibilise regional States in the WIO to take more responsibility for anti-piracy measures. This global governmentality morphed into a collaborative governmentality as small maritime States re-problematised and re-territorialised the risk space of the WIO to encompass wider concerns with

stronger political salience. Thus, maritime securitisation became a mechanism to enable development of the ocean as an economic space, following a new BE order encompassing a wider range of risks: transnational organised crime, terrorism, IUU fishing, environmental harms, and maritime incidents. Knowledges acquired through surveillance, data fusion, and analysis make threats visible and governable. The WIO becomes a governable space and open to economic exploitation.

Further research on this emerging blue economy power elations should consider the new institutions being created in tandem with BE policies - marine spatial planning, transboundary and highly migratory fish stock recovery plans, management of Areas Beyond National Jurisdiction, and so on – to understand their role in producing ocean space and their implications for the exercise of maritime power and the emergence of the blue economy order.

Appendix I

Anti-piracy mechanisms established in response to increased threat levels

Phase I response

UN Security Council Resolution 1851 (S/RES/1851), issued in December 2008, encouraged
 	
  "all States and regional organizations fighting piracy and armed robbery at sea off the coast of Somalia to establish an international cooperation mechanism to act as a common point of contact between and among states, regional and international organizations on all aspects of combating piracy and armed robbery at sea off Somalia's coast"
 	
  "Further encourages …[the creation of]… a centre in the region to coordinate information relevant to piracy and armed robbery at sea off the coast of Somalia,"
 	
  "Urges States in collaboration with the shipping and insurance industries, and the IMO, to continue to develop avoidance, evasion, and defensive best practices and advisories to take when under attack or when sailing in waters off the coast of Somalia,"

Naval operations either established or redirected to address the threats posed by piracy:
• The **Combined Maritime Force, Combined Task Force (CTF) 151**[47] was established in January 2009 by the Combined Maritime Force to "deter, disrupt and suppress piracy and armed robbery at sea and to engage with regional and other partners to strengthen relevant capabilities in order to protect global maritime commerce and secure freedom of navigation" • The **EU Operation ATALANTA**[48] was launched on 8th December 2008 "to deter, prevent and repress piracy and to protect vulnerable vessels and humanitarian shipments off the coast of Somalia". EU NAVFOR also established the Maritime Security Centre – Horn of Africa (MSCHOA), which manages

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[47] https://combinedmaritimeforces.com/ctf-151-counter-piracy/ Accessed August 2023
[48] https://eunavfor.eu/ Accessed August 2023

a voluntary registration scheme (VRS) for vessels transiting the area that enables EU NAVFOR to communicate the latest counter-piracy guidance to the maritime industry, and for shipping companies and operators to register their vessels' movements through the region. EU NAVFOR, and, by association, CMF's and independent naval assets may then be dispatched as required in the event of any emergency.

- **UK Maritime Trade Operations**[49] (UKMTO) had been established in 2001 following the 9/11 terror attacks and deployed as a naval force in the Arabian Gulf. To support the safety of navigation in the region it instigated a voluntary reporting scheme regarding suspicious activity or incidents. This scheme, whilst already established, became part of the international response to the rise in piracy in the region, mainly emanating from Somalia.

- **SHADE**. The Shared Awareness and De-confliction (SHADE) Mechanism was established in 2008 as an informal forum for navies and other stakeholders conducting counter-piracy operations to share information about their plans and activities. While they are separate entities, SHADE and the CGPCS mutually support each other. SHADE Chairs provide operational updates to the plenary meetings of the Contact Group and the Contact Group has provided the political support for the continuance of SHADE (Tardy (ed) 2014)

Djibouti Code of Conduct[50] (DCoC). In January 2009, the IMO convened a meeting in Djibouti of 17 littoral and interested states which produced the Djibouti Code of Conduct concerning the "Repression of Piracy and Armed Robbery against Ships in the Western Indian Ocean and the Gulf of Aden". Signatories declare their intention to co-operate to the fullest possible extent in the repression of piracy and armed robbery against ships. In particular the signatories to the Code have agreed to co-operate, in a manner consistent with international law, in arrest, seizure, and rescue operations. The Code further made provision for delivery of national and regional training, enhancing national legislations, information sharing and improved maritime domain awareness, and building counter-piracy capacity.

Transfer Agreements. One of the specific problems addressed by the Contact Group was that of prosecuting captured pirates, which required the establishment of transfer agreements to regional States,

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[49] https://www.ukmto.org/indian-ocean Accessed August 2023
[50] IMO (2009). https://www.imo.org/en/OurWork/Security/Pages/Content-and-Evolution-of-the-Djibouti-Code-of-Conduct.aspx Accessed August 2023

initially with Kenya and Seychelles, supported by capacity building efforts to ensure national laws enable the implementation of existing international law (Guilfoyle, 2013). This activity was assisted by a European Union Counter Piracy Programme[51].

Insurance. The insurance industry, specifically the Joint War Committee of Lloyds and IUA Insurance markets, designated a Listed Area for war risk. Vessel owners planning to route merchant vessels through a risk area are required to notify their underwriters and negotiate specific conditions to mitigate risk.

Contact Group on Piracy off the Coast of Somalia ('the Contact Group' or CGPCS). Established in response to S/RES/1851 (2008), although not explicitly mandated by it, this voluntary group brought together a wide range of stakeholders with an interest in the problems being posed by piracy. Operating as a forum for discussion rather than a decision making body, its communiqués nevertheless acted as a basis for harmonising the participants' respective efforts (CGPCS). The CGPCS established four working parties, one producing a Best Management Practices guidance document for vessels with the intention that these would be applied by vessels transiting a specified 'High Risk Area' (HRA). This guidance had and has 'full industry backing' and provides specific advice for Masters operating in these waters. The extent of the HRA has been modified in response to changing perceptions of risk[52] (see Tardy (ed.) 2014)

Phase II response

DCoC Jeddah Amendment[53]

In 2017 the signatories of the Djibouti Code of conduct agreed an amendment, the Jeddah Amendment[54], to extend the scope of the code to include "illicit maritime activity". The rationale for this was set out as follows:

> "CONVINCED THAT international seaborne trade between Participants and other States, developing efficient ports and infrastructure, nurturing national shipping lines and promoting

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[51] https://www.unodc.org/documents/Piracy/UNODC_Brochure_Issue_6_WV.pdf Accessed August 2023
[52] http://www.lessonsfrompiracy.net/2015/10/09/the-high-risk-area-debate-what-was-at-stake/ Accessed August 2023
[53] IMO (2017). https://www.imo.org/en/OurWork/Security/Pages/DCoC.aspx Accessed August 2023
[54]
https://wwwcdn.imo.org/localresources/en/OurWork/Security/Documents/A2%20Revised%20Code%20Of%20Conduct%20Concerning%20The%20Repression%20Of%20Piracy%20Armed%20Robbery%20Against%20Ships%20Secretariat.pdf Accessed August 2023

seafaring as a career, and developing the "blue economy", that is managing and protecting fisheries, securing offshore energy production, and creating the stable conditions that encourage investment and tourism, will help to ensure sustainable economic growth, food security, employment, prosperity and stability."

Regional Strategy and Action Plan

In 2010 a Ministerial conference[55] of the East and Southern Africa – Indian Ocean (ESA – IO) States adopted the Regional Strategy and Action Plan against Piracy and for Maritime Security, comprising three elements: actions in Somalia to counter structural factors responsible for the growth in piracy; arrangements for the prosecution of pirates; capacity building for maritime security. In 2016, the European Union made funding available to implement this strategy, the Regional Programme for Maritime Security (MASE), which had 5 components:

1. A Somalia Inland Action Plan to promote alternative livelihoods (to piracy) and improved maritime security capacity, delivered by IGAD (Intergovernmental Authority on Development)

2. Developing improved national/regional legal, legislative and infrastructural capability for Arrest, Transfer, Detention and Prosecution within the region, led by EAC (East African Community)

3. Strengthened regional capacity to mitigate financial flows related to piracy and to mitigate the economic impact of piracy in the region, delivered by COMESA (Common Market for Eastern and Sothern Africa)

4. Enhanced national/regional capacity for maritime tasks and support, delivered by IOC (Indian Ocean Commission)

5. Improvement of Regional coordination and information exchange, delivered by IOC (Indian Ocean Commission)

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[55] https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/EN/foraff/116942.pdf Accessed August 2023

Maritime Security Architecture

In 2017 the regional security centre called for in 2010 finally came into operation, comprising two centres: a Regional Maritime Information Fusion Centre[56] (RMIFC) in Madagascar and a Regional Coordination Operations Centre (RCOC) in Seychelles. These centres are currently run under an agreement between seven regional states and staffed jointly by them. The centres are funded by the European Union through the MASE programme. They coordinate between national centres of the signatory States. The entire WIO is its area of interest. The centres gather and analyse information from a variety of sources, including from international partners such as Interpol and UN Office on Drugs and Crime, and coordinate joint operations against transnational crime at sea. The centres 'General Area of Interest' is complementary to that of similar centres in west Africa and in SE Asia

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[56] https://www.ifc.org.sg/ifc2web/app_pages/User/commonv2/commonIndexv7.cshtml Accessed August 2023

Paper 4: Rethinking environmental governance for development: the *blue œconomy* dispositif

Abstract

This paper is the fourth in a series on the nature of the Blue Economy, a recent development paradigm, from a perspective of global environmental governance. In previous papers I draw upon the work of Michel Foucault on the rationalities of government ('governmentalities') to analyse the Blue Economy (hereafter, BE), in a spatial context. In this paper I examine in more detail the practices, the technologies, the materialities, of the BE 'dispositif' (using another Foucaultian concept) and address the question of 'place', as it is only in the context of place, I argue, that we can really understand how the Blue Economy is enacted. In doing so, I make the argument that the Blue Economy is a 'security dispositif' and that to govern Blue Economy places well, we need to pay attention to the emergent space-time relations of the dispositif 'in place'. Finally, I argue for a rethinking of economy and of blue economy governance, drawing on relational analysis of empirical cases in Kenya to call for a blue economy that is more sensitive to communities and the places they inhabit – a *blue œconomy* - which privileges co-management of natural resources at community scale in ways that are adaptive, prudent, and equitable.

1.0 Introduction

The BE is a recent development paradigm, being widely promoted by multilateral institutions in connection with UN Sustainable Development Goals SDG14 'Life below water', especially in the African and WIO context in which many States are Small Island Developing States (SIDS) or Least Developed Countries (LDCs) and therefore seen as priorities for development. The BE arose as a development paradigm during the preparations for the UN Rio+20 conference on environment and development, as an oceanic version of the 'green economy' which was itself presented at that event as a new approach to sustainable development. The BE has since gained much momentum, but its

inherent tensions between environment and development (see Midlen, 2021) have yet to be resolved. As such it is ill-defined, and easily co-opted by sectoral groups in pursuit their own interests (Silver et al, 2018), although efforts have been made to advance a definition of a 'sustainable blue economy' (UNEPFI[57], 2023). The BE is generating an ever-growing body of scholarship, too diverse and voluminous to review here. Examples include: *Categorisations*: Eikeset et al 2018; Voyer, et al 2018a; Winder and Le Heron, 2017; Kathijotes, 2013; Voyer et al 2022. *Regional examples*: Patil et al 2016, 2018; Choi, 2017; Satizábal et al, 2020; Fabinyi et al 2021. *Potentials*: Potgeiter, 2017; Pauly, 2018; Sakhuja, 2015: *Social justice*: Bennett, 2018; Evans et al, 2023; *International policy*: Mallin and Barbesgaard, 2020; Kedia and Gautam, 2020; Germond-Duret, 2022; Saddington 2023; *Security*: Midlen (in prep a); Voyer, et al., 2018b.

A variety of epistemological perspectives have been employed to analyse the blue economy. Winder and Le Heron characterised the BE as an assemblage of material and social relations, brought together in a 'blue economy moment'. An assemblage approach, in the authors words "aids relational thinking on reterritorializing human and non-human entanglements in coasts, seas and oceans." (Winder and Le Heron 2017: 4). A relational rendering of the BE has been developed by other authors too, such as Ntona and Schröder (2020), who focus on the legal dimensions of spatial planning for the BE and the enclosure of both ocean space and spaces of decision making. Saddington (2023) argues that the adoption of a Blue Economy imaginary by Seychelles has enabled it to mobilise multiple identities in its quest for international investment in climate and ocean governance. A political ecology perspective has revealed the BE as a space of multiple potentials, and of political struggle between environmental and economic goals (Midlen, 2021). In the Faroe islands Blue Growth strategies lead to conventional growth through the exploitation of new commodity frontiers, and new social and ecological distribution conflicts (Bogadóttir, 2020). In Namibia, the BE discourse re-frames the marine environment as an extractive space, leading to new

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[57] UNEPFI website. Accessed, March 2023. https://www.unepfi.org/blue-finance/

forms of struggle driven by the pursuit of capital accumulation (Carver, 2019). Childs and Hicks

(2019) draw attention to the "vital need to situate the blue economy in particular places and

examine its specific effects" (Childs and Hicks, 2019: 335), arguing that overlooking the specificities

of context is to overlook "the ways in which a particular type of (capitalist) expansion is rationalized,

legitimized and contested around the 'blueing' of the imperatives of economic growth." Midlen

echoes this theme: "the material and spatial specificities of places have often profound

consequences for how governance is exercised, creating sites and spaces of resistance" (Midlen

2021: 439). BE has been characterised as 'governmentality', a set of practices and tactics employed

to remake oceans as governable and developable spaces (Choi, 2017; Flannery and McAteer, 2020;

Midlen, 2021; 2023). Midlen (2023) argues that the BE rationality represents a global

governmentality, and in particular a 'collaborative BE governmentality' which is produced by the

global and African BE discourse. This stresses the need to secure food and livelihoods for a rapidly

growing population (Africa's population is expected to double by 2050), in the face of longstanding

trends of environmental degradation brought about through rapid coastal urbanisation, over-

exploitation of natural resources, and climate change.

In Kenya the BE is a national priority, seen as a key sector in the country's Vision 2030

transformation programme. A Blue Economy Sector Plan (GoK, 2018) identifies key programmes,

principally fisheries reform and development, training (fisheries and seafaring), capacity building

(e.g. local fisheries management institutions, Coastguard service) and sub-sector development

(maritime logistics, fish processing). The country has recently adopted a devolved constitution, with

the Counties slowly evolving into their new roles. The Kenya coast includes 6 counties, formerly

comprising the Kenya Coastal province, which was itself a former Swahili Sultanate. The Jumuiya Ya

Kaunti Za Pwani (JKP) organisation is a platform for collaboration between these counties on

economic development matters, and a proponent of the BE. Kenya's coast harbours important

environmental resources, most notably mangrove forest, seagrass meadows, coral reefs and their

associated flora and fauna. Their conservation, and necessarily the livelihoods of the communities that use and rely upon them, has attracted the attentions of numerous environmental NGOs, both international and Kenyan. The 2010 Kenya constitution enables co-management of natural resources between government and communities. Kenya has a large informal economy (ILO, 2021) and an entrepreneurial culture. Multilateral institutions regard BE development in Kenya as a priority, with large programmes underway (at the time of writing) funded by the World Bank and European Union each having a strong emphasis on artisanal fisheries management and coastal livelihood diversification.

As a new paradigm for ocean management and development the BE remains relatively untested and its long term impacts uncertain. Its ability to shine a light on 'new frontiers' for development creates an urgent need to understand the implications for the environment and for the communities for whom the BE is positioned as a solution to their development needs. In this paper I aim to make a contribution to the ongoing evolution of the BE as a development paradigm. I use Foucault's concept of 'dispositif' as an analytic lens to understand the BE in the WIO and Kenya, and to draw attention to its spatial relations and the contextual importance of place.

1.1 Dispositif

Foucault set out his thinking on 'dispositif' in his lectures at the College de France on 'Security, Territory, Population' (Foucault, 2007) in which he describes the evolution of forms of government in western Europe from the C16th to C19th. In his analysis 'Sovereign' power is the "right to take life or let live," a right that ultimately resides in and is exercised as the "right to kill" (Foucault, 1975-6: 2003: 240-1) and which has the individual as its focus. During the C18th as populations expanded, the rationality of power shifts from the sovereign concern with territory (observance of boundaries and limits, and obeyance of rules and constraints) to the biopolitical concern with population (Aradau and Blanke, 2010), and especially to one of *managing circulation by directing freedom*. Foucault

referred to the rationale and technologies of government by which this power is exercised as a 'governmentality' (e.g. Dean 2010a; Rose et al, 2006; Crampton and Elden, 2007). Governance through 'discipline' in Foucault's analysis replaces sovereign power with technologies of power and knowledge to create self-disciplining subjects who conduct themselves according to the State's expectations.

In contrast to *governmentality*, the term *dispositif* was introduced by Foucault to describe a "heterogeneous ensemble consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and philanthropic propositions." (cited in Raffnsøe et al. 2014: 10). Foucault stresses that the dispositif is more than the sum of its parts (elements), perhaps using the term apparatus here in reference to its generative capacities: "The apparatus itself is a system of relations that can be established between these elements.... what I'm trying to identify in this apparatus is precisely the nature of the connection that can exist between these heterogeneous elements". Further, he stresses that a dispositif has a particular strategic function, "I understand by the term "apparatus" a sort of – shall we say – formation which has its major function at a given historical moment that of responding to an urgent need" [an '*urgence'* in French] (Foucault 1980, 194–195, cited in Pløger 2008, 55). In Braun's interpretation rather than being a governmentality, a single system of management with a common rationality, the dispositif consists of "a diverse set of knowledges, practices, and institutions that have no more unity and no more necessity beyond the simple fact of being stitched together" (Braun, 2014: 52). The translation of the word dispositif from French into English has caused much debate, with a range of terms being used. Foucault himself used 'dispositif" and 'appariel' interchangeably at times, but settled on dispositif as his thinking progressed (Bussolini, 2010), and these terms have generally been translated as 'dispositive' and 'apparatus', respectively. Agamben, concerned with the origin of the term, links dispositif with the ancient Greek *oikonomia* (its latin translation being *dispositio*) and so situates dispositif in the context of a 'divine economy' (Frost,

2019; Bussolini, 2010). As the translation of dispositif into English is problematic, I follow other authors in using the term in its French form. Bussolini (2010: 96) has argued for a clear distinction of meaning between appareil (apparatus) and dispositif (dispositive): "Apparatus might be said to be the instruments or discrete sets of instruments themselves – the implements or equipment. Dispositive, on the other hand, may denote more the arrangement – the strategic arrangement – of the implements in a dynamic function", that dynamic function having a generative capacity. In this vein Gailing reminds us of the contingent nature of social relations and how Foucault's approach to analysis of discourse allowed him to "describe the complicated and ongoing change within practices" (Gailing, 2016: 246). Further, it is through the dispositif that the human being is "transformed into both a subject and an object of power relations" (in Frost 2019: 152, citing Esposito). For Pløger, the dispositif constitutes an ensemble of "disciplinarian forces through relations of power, knowledge and space" in which space is 'active' (Pløger, 2008: 52). However, "space does not determine; it signifies, it disposes, 'allows' more than 'forbids' specific practices" (Pløger, 2008: 60). The dispositif, then, is a more diffuse representation of governance than a governmentality. It represents a collection (an *ensemble*) of elements that come together as a result of diverse forces and influences (rather than of a deliberative governmental rationality) and to which a response is needed (an *urgence*). Nevertheless, it embodies a generative power - an ability to shape subjects and to allow, or make space for, practices of governance.

1.2 Dispositif of security

A shift from a sovereign concern with territory to a biopolitical concern with population lies at the heart of Foucault's analysis of government. The security of the population becomes the focus of power. The population's freedom, defined as "the management and organization of the conditions in which one can be free" becomes a counterpart to this security (Wichum, 2013), this freedom

being constantly produced[58]. The possibility to restrict freedom, through security, is therefore an essential part of freedom. Wichum sees this relationship between the production of freedom and the continuous possibility of its restriction as central to the role of the security dispositif. Citing Foucault, Wichum reiterates that the essential problem of security is *circulation*: "An apparatus of security… cannot operate well except on condition that is given freedom… the possibility of movement, change of place, and processes of circulation of both people and things. I think it is this freedom of circulation… it is in terms of this option of circulation, that we should understand the word freedom, and understand it as one of the… dimensions of the deployment of apparatuses of security," (Foucault, 2007: 49). This security is effected through biopolitical practices of "organising circulation, eliminating its dangers, making a division between good and bad circulation, and maximizing the good circulation by eliminating the bad" (Foucault 2007: 18). The concept of security dispositif has been the topic of much scholarship, both as an analytic device and as a philosophical paradigm (see Lobo-Guerrero, 2007; Aradau and Blanke, 2010; Dean, 2010a; Muller, 2011; Huber and Scheytt, 2013; Watts, 2013; Quassoli et al, 2018). Within the security studies literature, the 'state of exception' engendered by security dispositifs has become a significant focus of attention (eg Dean, 2010b), especially in relation to the 9/11 terrorism events. In environmental discourse, however, a micro-politics of risk and a series of macro-securitizations enable and legitimize the governmental machinery (Methmann and Rothe, 2012) without resort to exceptional measures. Aradau and Blanke (2010: 1) refer to a modern imaginary of 'securing through circulation.' What matters, they argue, "are 'unruly' movements that need to be prevented, contingencies that need to be pre-empted and good circulation that is to be fostered."

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[58] see Michel Foucault, The Birth of Biopolitics: Lectures at the Collège de France 1978-1979 (Basingstoke; New York: Palgrave Macmillan, 2008), 63-64; 65.

1.3 Governance and place

In the first paper in this series I pose the question 'Does place matter?' in relation to governance (Midlen, 2021). Whilst Foucault's governmentality and dispositif are certainly concerned with space (ref. their concerns with populations and circulations respectively), the connection with place is poorly developed in literature on governance. But what *is* 'place'? For Puleo (2012: 1) place is a specific engagement with space, and "whilst space is abstract, place is experienced". Cresswell (2009) notes that since the 1970s place has been conceptualized as a particular location that has acquired a set of meanings and attachments, as distinct from location (a distinct point in space) and locale (the physical setting for a location). Individual places have a particular material structure, but also hold meaning derived from personal or collective experience and from practice, the mundane or momentous things that people do in a place. Places are defined, therefore, by their material and social relations. Aristotle considered place to be fundamental, enabling the understanding of space, movement and change (Casey, 1997). Everything that exists, for Aristotle, has to be located, has to be some*where,* and hence place is the starting point for all other forms of existence. Malpas (2012), considering the *actual nature* of space in relation to understanding spatialisations in geographical research, argues that space (and time) is subservient to place. Therefore, in the context of this paper, a spatialised understanding of the blue economy and its governance must take account of the particularities of place. A diffuse literature on place-based (as opposed to place-neutral) governance encompasses many epistemologies – see for example: Integrated Regional Policy (OECD, 2009); place-based urban food governance (Coulson and Sonnino, 2019); place-based climate risk governance (Krauß and Bremer, 2020) - but a common conception of *place* in relation to governance is lacking.

2.0 Methods

In this paper I use the concept of dispositif to analyse empirical data on blue economy practices. However, I regard place as a critical element in BE emergence, governance being contingent upon

the spatial and material dimensions of place which I explore using a spatialised perspective (see Midlen, 2021; 2023).

Foucault considered discourse to be a technology of power and knowledge (Foucault, 1998). He argued that discourse shapes or produces reality by framing problems of government and by privileging certain solutions over others. Those solutions, in turn, give rise to practices and knowledges that themselves exert power over subjects. Discourse analysis has particular strengths for environmental policy analysis, including an awareness of the role of language and knowledge in constituting policies, polities and politics and as exerting power effects, and how practices of government are constitutive of power relations and knowledge systems (Feindt & Oels, 2005). Many authors have used discourse analysis to investigate environmental questions, for example: Griggs and Howarth (2019) analyse discourses surrounding UK airports policy; Zelli et al (2019) use discourse analysis to unravel institutional complexity in REDD+ governance; Shaw (2013) reviews international climate change policy targets as represented in the news media.

Discourse analysis was applied to policy documents relating to the BE in Africa and the Western Indian Ocean (Table 1) region, supported by key informant (Table 2), semi-structured interviews (March-July 2021) and site visits to projects and enterprises in Kenya and Seychelles between October 2021 and March 2022, this aspect having full ethics approval. Case studies, reported below, were developed from these visits and related interviews.

Texts were coded according to an analytic framework of governmentality and place (see Midlen, 2021) using NVivo 12 software. Coded text was transferred to a mind map (SimplemindPro software) to enable a more integrated approach to classification and thus a 'spatialised governmentality' analysis. Further analysis involved the identification of specific technologies, institutions, knowledges and practices of government – collated into a spreadsheet and categorised inductively.

Further inductive analysis, conducted through close readings of empirical data collected through fieldwork informed by dispositif scholarship, led to elucidation of constituent spatial relations of the BE dispositif, and circulations within the dispositif.

Table 1. Documents subject to discourse analysis
African Development Bank Group, 2018. Blue economy flagship. A briefing note for partnership. Prepared for Blue Economy Conference in Nairobi, Kenya, 26-28 November 2018.
African Union (2019). 2050 Africa's Integrated Maritime strategy (2050 aim strategy).
AMCEN (2019). African Ministerial Conference on the Environment. Seventeenth session
AU-IBAR, 2019. Africa Blue Economy Strategy. Nairobi, Kenya. Strategy report and Annex's 1-5
AUDA-NEPAD 2019. Development of the AUDA-NEPAD Blue Economy Programme. Messages from Stakeholders
European Commission (2017). Introducing the sustainable blue economy finance principles
European Commission (2018) Declaration of the sustainable blue economy finance principles.
Government of Kenya (2018). Sector plan for blue economy. State Department for Fisheries, Aquaculture and the Blue Economy, Ministry of Agriculture, Livestock, Fisheries and Irrigation.
HLP, 2019. High Level Panel For A Sustainable Ocean Economy, Western Indian Ocean (WIO) Regional Meeting. 2 – 3 December 2019, Mombasa, Kenya. Meeting Report
Indian Ocean Commission (IOC). 2010. A regional strategy for conserving marine ecosystems and fisheries of the Western Indian Ocean Islands Marine Ecoregion (WIOMER). IOC, WWF, Conservation International, Fonds Français pour l'Environnement Mondial (FFEM), Wildlife Conservation Society, Réunion.
Kelleher, K. (2015). Building the Blue Economy in the Western Indian Ocean. 8th Conference of Parties Meeting for the Nairobi Convention, 22-24 June 2015 *Mahé*, Seychelles. Blue Economy and Oceans Governance Workshop
Ministerial segment, Durban, South Africa, 14 and 15 November 2019. Advancing the blue/ocean economy in Africa
Republic of Seychelles (2019). Seychelles Blue Economy: Strategic Policy Framework and Roadmap Charting the future (2018–2030).

SBEC (2018) Report On The Global Sustainable Blue Economy Conference. 26th – 28th November 2018, Nairobi, Kenya

SBEC (2018). The Nairobi Statement of Intent on Advancing the Global Sustainable Blue Economy. Sustainable Blue Economy Conference, Nairobi, Kenya

UNECA (2014) Unlocking the full potential of the blue economy: Are African Small Island Developing States ready to embrace the opportunities? Addis Ababa, Ethiopia

UNECA (2016a). Africa's Blue Economy: A policy handbook. Addis Ababa, Ethiopia

UNECA (2016b). The Blue Economy. Report. Addis Ababa, Ethiopia

UNECA (2018b) *Blue Economy, Inclusive Industrialization and Economic Development in Southern Africa*. The 24th Session of the Inter-Governmental Committee of Experts (ICE) (Senior Government Officials) of Southern Africa. 18 – 21 September 2018, Balaclava, Mauritius

UNECA (2018a). AFRICA'S BLUE ECONOMY: Opportunities and challenges to bolster sustainable development and socioeconomic transformation. Issue Paper produced for the Sustainable Blue Economy Conference. 26th – 28th November 2018, Nairobi, Kenya

UNECA (2017). Transformative Growth in Eastern Africa: Catalysts and Constraints. ECA-EA/ICE/21

UNEP (2012). Green Economy in a blue world. Nairobi, Kenya

UNEP 2015. Report of the eighth conference of parties to the convention for the protection, management and development of the marine and coastal environment of the Western Indian Ocean (Nairobi Convention). *Mahé*, Seychelles. 22-24 June, 2015.

UNEP (2017). Marine Spatial Planning of the Western Indian Ocean Blue Economy. UNEP/NC/FP/2017/4/Doc/13

World Bank (2017). The Potential of the Blue Economy: Increasing Long-term Benefits of the Sustainable Use of Marine Resources for Small Island Developing States and Coastal Least Developed Countries. World Bank, Washington DC.

World Bank Group (2017). The Ocean Economy in Mauritius: Making it happen, making it last. Washington DC, USA

WWF (2017a). Principles For a Sustainable Blue Economy.

WWF (2017b). Reviving The Western Indian Ocean Economy. Gland, Switzerland

Table 2. Key informants and codes

Organisation	Expertise	Code	Date of interview
Beach Management Unit	Community based fishery management	BMU1	18.12.2021
County Adminstration	Coastal fishery management	FM1	4.11.21 and 20.12.21
Jumuiya Ya Kaunti Za Pwani	Coordinated action for blue economy in Kenya	JKP	03.11.2021 and 25.01.2022
State Department for Fisheries, Aquaculture and Blue Economy, Government of Kenya	Implementation of World Bank KEMFSED project	KEMFSED	16.03.2021
Kenya Marine and Fishereies Research Institute (KMFRI)	Mangrove ecology and restoration; coastal processes	KMFRI 1 & 2	27.10.2021
Save Lamu	Community activism	Save Lamu	15.11.2021 and 25.11.2021
Association for Coastal Ecosystem Services (ACES)	Administering community accreditation and carbon credit sales	ACES	05.11.2021
Plan Vivo	Accreditation body for carbon credits	PVivo	01.12.2021
Gazi Community	Community management of mangrove-based carbon credit programme	GComm	27.10.2021
Pate Island Marine Community Conservancy	Community-led coastal conservation management for fisheries and mangroves (Community leaders, managers and fishers interviewed)	PIMCC 1, 2 & 3	21 & 22.12.2021
Crab Shack and Beach Shack	Community-led enterprises for coastal conservation	ENT 1 & 2	30 & 31.10.2021 and 28 & 30.01.2022

2.1 Case studies

The following summaries briefly describe a selection of cases that I draw upon as diverse sources of empirical evidence for my arguments in this paper, contributing to and complementing the discourse analysis described above. These projects and enterprises on the Kenya coast were visited between October 2021 and March 2022. They were selected due to the relationship of each to natural marine resources, their strong association with place, and their ability to reveal new understandings of BE governance.

2.1.1 Governmental programmes

In Lamu County two governmental programmes were investigated: fisheries reform and the LAPSSET (Lamu Port, South Sudan and Ethiopia Transport) corridor development programme. Both represent programmes led by the Government of Kenya to address their BE priorities. Fisheries reform recognises the importance of inshore fisheries to the coastal population, as a source of food and employment, but also that there is much waste due to poor infrastructure and poorly functioning markets and that coastal stocks of fish resources are under increasing pressure from poorly controlled fishing. The Government's response is a programme of stock assessment, fisher and fishing boat registration, infrastructure development, market reforms, and capacity building amongst fishing communities and fisheries co-management institutions.

The LAPSSET programme represents a longstanding development aspiration for Kenya and East African States to develop Kenyan oil reserves and improve inter-State trade in the Horn of Africa. The North/North East of Kenya is remote and relatively sparsely populated and has been perceived as in need of development. However, initial developments have been met with effective resistance from local indigenous communities regarding environmental impacts of port construction and

operation, dispossession of community lands, and poor community engagement. The 'Save Lamu' coalition, in working to make indigenous voices heard, has successfully taken the government to Court, securing significant sums in compensation and setting legal precedents.

2.1.2 Community initiatives

Kenya has an active community-led development sector. The Mikoko Pamoja project in Kwale County, community initiatives in Watamu, and Paté Island Community Conservancy in Lamu County were selected for study given their strong dependence on natural marine resources. Kenya's Constitution allows co-management of community resources, through agreement between formal Community Associations and the relevant government Ministry. These agreements specify what activities are permitted within a delimited area, both restricting certain uses and enabling others and aiming to ensure that natural resources are not over-exploited. On Paté Island, Kenyan and International NGOs have worked for a number of years to build community capacity and to enable more sustainable natural resource based livelihoods, notably creating locally managed marine areas (LMMAs) for octopus fishery and mangrove forest conservation. In Gazi village, further south, the Mikoko Pamoja project conserves mangrove forest to generate carbon credits, the revenues from which support development projects to improve the lives of villagers. In Watamu, mangrove conservation efforts have taken an alternative route, with the establishment of tourism and hospitality focused social enterprises to create income and employment.

3.0 Discussion

I make the argument that the BE is a security dispositif, responding to an *urgence* regarding both global and local pressures - the consequences of environmental degradation and human development needs. Security dispositifs are concerned with *circulations*, and I illustrate this in the context of the BE drawing on empirical data from case studies. I further argue that the critical

relations of the dispositif are spatial in nature, and that of these spatio-*material* relations are prominent. Finally, in this section, I argue that the BE dispositif is both constitutive of place and a product of place.

3.1 BE as a security dispositif

Security is a priority for the UN (eg Jaeger, 2010), which is concerned with a wide range of threats: traditional security concerns such as crime, terrorism and war, and non-traditional concerns for human security such as public health, availability of food, access to environmental resources such as water and so on (Caballero-Anthony, 2016). Consequent moves towards securitisation of these domains increasingly influence the architecture of global environmental governance (Liebenguth, 2020). Global discourses of risk and security (concerning climate change in particular, but more recently extending to biodiversity loss) have spawned a new lexicon - of vulnerability, resilience, adaptative capacity, complexity, etc - and with this a sense of planetary emergency, an *urgence*, arising from threats of massive, catastrophic risks and uncertainties arising from global environmental change, from economic globalisation, and from the development challenges of the global south (Watts, 2013). BE is proffered as a mechanism to address such challenges in the context of 'Life below water' (SDG 14) or, more broadly, ocean governance. The World Bank (2017) suggests that the BE represents the *primary* mechanism to achieve SDG14 targets.

The policy discourse in the WIO clearly and consistently presents the BE as a solution to the region's human security challenges. According to WWF, an INGO, "Some 60 million people live within 100km of the coast across the entire Western Indian Ocean" (WWF, 2017b) putting coastal resources such as fisheries under pressure. These resources are relied upon "for economic and food security as well as for their social and cultural identity." A solution to these ills is better managed and more sustainable use: "For three-quarters of the African continent, the blue or ocean economy is its

principal economy and, if well used, could be a potent engine for economic growth" (AMCEN).

According to the AU, "aquatic ecosystems present abundant opportunities for the African Union

member states to participate in sustainable ocean (blue) economy by harnessing the potentials for

improving productivity of the ocean environment, job creation, strengthening food and nutritional

security, wealth creation opportunities and environmental sustainability toward sustainable blue

economy development" (AU, 2019). Consequently, the BE has been integrated into development

policy. Thus, the BE program is one of seven 'flagship programmes' to implement the *Feed Africa*

Strategy, which aims to lift millions out of extreme poverty; end hunger and malnutrition in Africa;

and sustainably develop its fish resources (AfDB, 2016). Nationally, the Kenya Sector Plan for the

Blue Economy, for example, claims that "Humankind depends on a safe, sound and secure maritime

domain" and ascribes many benefits to this security, including peace, international security and

stability, the ability to "feed billions of people", human development, economic growth and

prosperity, and preservation of ecological diversity and coastal livelihoods[59].

In response to this discourse an *ensemble* of 'institutions, architectural forms, regulatory decisions,

laws, administrative measures, scientific statements, philosophical, moral and philanthropic

propositions' (to reference Foucault) are being introduced across the region. Fishery reform, a BE

priority in Kenya, illustrates the complex nature of a BE dispositif well. Coastal fisheries management

is in its infancy here. It is a crucial sector to the livelihoods of coastal communities, but nearshore

finfish stocks are generally overfished (Kimani et al, 2018). The Fisheries (Beach Management Unit)

Regulations 2007, the National Oceans and Fisheries Policy 2008, the Fisheries Management and

Development Act 2016 and associated Marine Fisheries (Access and Development) Regulations 2022

provide the policy framework for artisanal fishery management. The freedom of fishers to go to sea

and fish without restriction has led to overfishing and the consequent depletion of stocks and

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[59] Govt of Kenya, 2018. Sector Plan for the Blue Economy, 2030

catches in coastal regions. The cost of entry is low, so fishers join when the general economy is poor, inflating fisher numbers and exacerbating these problems - in Lamu County alone there are upwards of 10,000 fishers (BMU1). Beach Management Units (BMUs) were introduced as a local unit of management for these artisanal, or small scale, fisheries. They are community-based organisations comprising members of the various subsectors of fishing - fishers, boat owners, processors, traders etc - and allow for co-management between community and government (BMU1). Each official landing place has a BMU. Securitising fisheries (and thus the food they produce) involves processes of inscription and subject creation, in which the BMUs play a central role. Key informants (FM1, BMU1) described elements of the process being introduced in Kenya: fishers are registered through their BMU and their boats licenced, providing the means to control access to fisheries, both through inclusion/exclusion, and more progressively (increasing registration or licencing fees over time for example). Requirements on registered fishers to declare catches (to County inspectors) at specified landing sites enables individual fisher effort to be recorded and aggregated as the basis for its monitoring and regulation. Training programmes aim to transfer good practices to fishers. Fishing activity is permitted/excluded spatially by creation of specific use zones. Stock assessment calculations provide a basis for allocations of future catch, either to individual fishers, to communities, or by area. BMUs (have been established to co-manage fishing areas, monitor landings, pressure stocks have been identified (eg lobster) and work is underway to understand stock status for priority species. Here, we see the essential elements of a security dispositf: threats to the human population (loss of fishing livelihoods through unregulated fishing), subject creation (registration of fishers) and their enrolment in the dispositif (eg reporting catches), and governance measures designed to control good and bad circulations (e.g. BMUs).

Kenya's coast is also the site of important mangrove forest resources, particularly in the south (Kwale County) and the north (Lamu, and Tana River Counties). These forests have traditionally been sources of wood for fuel and construction, and have provided sources of food (e.g. fish, crab, honey)

and medicinal herbs (KMFRI 1; Save Lamu; Anon, 2016)). They are important as nurseries for fish

populations of the adjacent seagrass meadows and coral reefs. Forest resources have been

degraded as a result of increasing demand as human populations grow (e.g. Kirui, 2013; Kairo et al,

2021), and ineffective control of timber extraction and development. 'Blue carbon' is promoted as a

BE response to these challenges, referring to the generation of revenue from sales of carbon credits

in return for sequestering carbon through mangrove conservation, itself paid for by the carbon

credits. The financialisation of natural resources is a key plank of the global BE vision, as a way of

financing natural resource conservation (eg Christiansen, 2021; Sumaila et al., 2021). This process,

like fisheries reform, also involves the securitisation of natural resources, as illustrated by the

Mikoko Pamoja project in Kwale County, Kenya. Again, considering security as a process of managing

circulations, of restricting freedom, the project depends on a bounded area from which people and

activities can be excluded or included. A Management Agreement with the Kenya Forest Service

specifies what activities the registered community can undertake, where, and to what extent (KMFRI

1). To generate carbon credits, the project must be registered with a voluntary standard-setting

body which certifies its compliance with international standards. This involves assessment of the

proposed management actions and the calculation of the projected carbon volumes sequestered or

not emitted (avoided loss). This we can think of as interrupting the circulation of carbon and thereby

lessening the impact of CO_2 emissions on the climate. Carbon credits must be attributable to

management actions and, therefore, measurement and processes of assurance are essential

elements of the dispositif. Accredited through Plan Vivo, the project generates approx. US$30,000

pa revenue in carbon credit sales on voluntary carbon offset markets, priced at a premium to reflect

additional social benefits over and above carbon sequestration (ACES; Plan Vivo). These revenues,

and the markets that generate them, are essential to the workings, the *dynamic function*, of the

dispositif. The revenues incentivise engagement in the BE, paying for annual monitoring undertaken

by community members, which generates employment, and investment of surplus revenues in

community projects (GComm). At the time of visiting, the community's priority was the installation of water distribution infrastructure to improve access to safe, clean drinking water.

In these cases we see various controls on freedom effected by the BE security dispositif - the freedom to fish (what, how, where, and when) and to land catch, or to extract timber. This is in response to an *urgence* of resource depletion, and in pursuit of BE solutions. In the fisheries sector, one of the primary objectives of which in Kenya is to reduce overfishing, these solutions include measures to reduce post-harvest losses, and to increase income and employment through a better developed value chain (FM1; JKP; KEMFSED). In Mangrove forest conservation, carbon credits enroll the community in a system of management, measurement and verrification. The various measures amount to *an ensemble*, or a regime, of practices, policies etc. designed to effect security.

3.2 Spatial and temporal relations

If freedom is a dimension of the security dispositif then so too are time and space, within which circulation takes place. Implicit in the concept of security is the prevention of events deemed undesirable. Thus, security dispositifs have a temporal dimension, being concerned with the future, with uncertain, unpredictable events that might never happen but are always possible (Wichum, 2013) and which can only be controlled through technologies of risk, which themselves rely on estimations of probabilities (e.g. see Huber and Scheytt, 2013). This contingency of threat is rationalized by security dispositifs through logics of pre-emption, precaution, and preparedness (e.g. Wichum, 2013; Aradau and Blanke, 2010; Methmann and Rothe, 2012) - regulation of space is guided by the principle of partitioning: "One must eliminate the effects of imprecise distributions, the uncontrolled disappearance of individuals, their diffuse circulation, their unusable and dangerous coagulation (Foucault, 1979: 143). Thus, fishery management uses models of stock dynamics and environmental variables to predict annual recruitment to fish stocks and the

consequent variation over time in standing stock as the basis for setting precautionary limits to catch. Production of carbon credits relies on the estimation of a counterfactual scenario, the 'business as usual' case, against which the effects over time of lower risk scenarios of management can be evaluated. Temporal circulations are largely about change, and are designed to either restrict it or enable it. Restrictions on fishing, for example by means of closed areas in which fishing is prohibited, allow fish stocks in that location to recover over time. On Paté Island, a closed season for octopus allows stocks to recover resulting in a more profitable and sustainable fishery (PIMCC 1, 2). Carbon sequestration in the Gazi mangrove forest (Mikoko Pamoja project: KMFRI 1; GComm) slows the circulation of carbon in the biosphere as a response to the accelerated circulation of carbon brought about by extracting it from the geosphere and burning fossil fuels. However, the rate of sequestration is mediated by the relative success of management actions. Whilst the enforcement of logging restrictions is effective, loss of mangrove areas due to coastal erosion limit sequestration progress (KMFRI 2). In light of the centrality of these spatial and temporal factors, I argue that the BE dispositif is characterised largely by spatial and temporal relations, mostly of a *material* nature, themselves originating in the heterogeneous and unpredictable character of the ocean and coastal environment.

3.3 Dispositif and 'place'

Given the concerns outlined above regarding 'location' in the context of temporal and spatial dimensions of governance (material circulations; partitioning and inscribing of space; presence/absence), I argue that 'place' is also intricately associated with dispositif. Malpas (2012) argues for the pre-eminence of place over space and time, making the case that place is constructed through *bounded space-time relations*. In a philosophical sense, boundedness presupposes difference, and difference presupposes relationality. That is, relationality depends on the existence of separate entities, one relating to the other, which are necessarily bounded and being bounded are both spatial and temporal (the two being inextricably linked. Malpas, 2012). Boundedness also

establishes location and orientation, making possible the differentiation between a 'here' and a 'there' and so differentiating 'place' (Malpas, 2012). Thus, if the character of a dispositif is defined by relations between its elements, then it must be spatial (i.e. comprising differentiated elements), temporal (i.e. encompassing uncertainty, change, and emergence or 'becoming', and therefore uncertain and multiple futures), and bounded, comprising a limited set of relations due to its having a 'strategic function' and arising in response to an *urgence*, to a certain need. The dispositif then is a set of bounded space-time relations and is therefore constitutive of place. The relational character of place, in turn, is constitutive of subjects. The creation of subjects is central to Foucault's thinking on governance and how this process is mediated by relations of knowledge and power (see Foucault, 1982; Cremonesi et al, 2016). The role of place in subject creation is illustrated by Pløger in his analysis of urban planning as a security dispositif. Urban planning and architecture act together as an 'apparatus of normalisation' through the production of securitised, or disciplinarian, space. "The apparatus here involves a spatialization of a social field of action through the installation of materialities in social space. However, materialities also have to turn into some kind of representation in order to have effect" (Pløger, 2008: 57). That is, these materialities of the built environment (being both intentional and functional) are, in effect, discourse and generate the relations of a security dispositif.

However, in the context of the ocean the ability to create a disciplinarian environment is severely curtailed. Foucault used the concept of the *panopticon* as a 'diagram' to illustrate the mechanism by which discipline works in society. The Panopticon, a design for an ideal prison by the C18[th] social reformer Jeremy Bentham, consisted of a cylindrical building containing cells, the prisoner in each being visible from a central tower, silhouetted against the light from external windows. The constant possibility of being observed conditions or coerces the inmate to behave in accord with society's expectations. In this way the subject is disciplined by the 'gaze', by constant visibility. Pløger and others (eg Piro, 2008; Høghøj, 2020) make the case that the disciplinary function of architecture

extends well beyond the prison, to hospitals, schools and similar institutions, but also to the design of public space, highlighting the role of the material elements of the dispositif. However, the coercive power of the gaze is limited in its effects to human populations and individuals - the subjects of the dispositif - mediated through their relations with their material surroundings. The natural world, on the other hand, constitutes a source of diverse and heterogeneous elements which, unlike architecture, are not in the control of society. Weather events, tsunamis, fish migrations and so on cannot be coerced by the gaze. Instead, they are 'bad circulations', sources of uncertainty and threat and, through the calculation of probabilities, become risks.

So far, I have demonstrated that the BE dispositif is a security dispositif, concerned with the 'management' of unpredictable socio-material relations between society and the ocean and coastal environment. Measures enacted in the name of the BE are consequently mechanisms of subjectification, inscription, partitioning, and (re)territorialisation resulting in spatialisations of people and things. These spatio-material relations are constitutive of place and of subjects, and can be said to be central to BE implementation 'in place'. In return, places shape the BE, their material elements co-constituting the dispositif. Without the materiality of mangroves there would be no 'blue carbon', no trading on voluntary carbon markets of credits produced by communities in Kenya, no water distribution pipes in Gazi village. Counter conducts, being particular social or spatio-material relations, also shape the BE, in place. That is, they are a response to particularities of place as we see with the Save Lamu coalition in relation to Lamu Port development, where traditional resource uses, each dependent on the physical materiality of this place (coastal topography, habitats and species) were threatened leading to a reassertion of indigenous rights and a reterritorialisation of mis-appropriated lands through collective action: "If we fight individually we cannot be heard. So we formed this consortium" (Save Lamu). "So now the government have understood us and they invite us to their forums and allow us to make contributions. They attend our events and listen."

3.4 Rethinking governance

I would like now to trace a connection between economy and place, and back to dispositif. I have, earlier in this paper, made the case that dispositif, as a set of bounded space-time relations, is constitutive of place and of subjects, based on an understanding of place and space derived from ancient Greek thought. Conceptions of place and space in ancient Greece involve the concepts of *choros* (the space that gives a place for being), *topos* (place as bounded openness) and *kenon* (open extension) as Malpas (2012) reminds us. The central social unit of ancient Greece was the family, *oikos* (the family members, the family's property including farm etc), and this evokes the home as a unit of space and of place, and a building block of the *polis* – the City State. Consequently, *Oikos* is the root of the word economy, *oikonomia* referring originally to household management, but gradually being extended to refer to the rational management of resources (Leshem, 2016), that is, to the study of human behaviour as regards the relationship between "ends and scarce means which have alternative uses" (ibid., p229). The end was of great concern, being the ability to both contribute to the *polis* and to support family. The concept of prudence was implicit in the recognition of the need to either increase income to match household needs or to reduce consumption. Thus, "the management of the *oikos* was guided by the ethical disposition that was deemed best-suited to facilitate the engagement of the head of the household in philosophy and politics" (ibid., p229). Economic theory discussed the surplus generated by the economy and "the means suited to achieve what was deemed the best ethical disposition." (ibid., p230). Dispositif is about the 'disposition' of its elements to achieve certain aims, so this 'ethical disposition' can be thought of as a dispositif for economic prudence, 'securing' the wellbeing of the family and the wider culture of the *polis*. Agamben's study of the etymology of dispositif is revealing, taking us back to the same classical understanding of economy. He recounts an earlier origin of the term dispositif than does Foucault, tracing it through its latin root *dispositio* to *oikonomia* (of which *dispositio* is the latin translation). He writes that 'Oikonomia signifies in Greek the administration of the oikos, the house, and, more generally, guidance/conduct, management. It concerns, as Aristotle says, not an epistemic

paradigm, but a practice, a practical activity which must from time to time confront a problem and a particular situation.' (cited in Bussolini, 2010: 104). Further, Agamben situates *oikonomia/dispositio* in a Christian discourse of God's povidential management of man and the earth's resources, a 'divine economy', and asserts that it is central to understanding the managing activity of governmentality and also, I argue, the function of the dispositif.

This connection of dispositif with *oikonomia* opens interesting possibilities for rethinking governance through dispositif. To avail ourselves of this opportunity I look to discourses of economy in the classical period, the end of which marked an etymological and ontological transition from *œconomy* to *economy*. In the C17th *'œconomy'* meant the art of managing people and things through the relations between them. It was closely tied to Christianity and God's providence for humankind in the form of natural resources - a natural moral economy (Gammon, 2010). The botanist Carl von Linneus (1707-1778) wrote of the principles of œconomy being based on natural sciences and physics - it is the "art of preparing natural things for our own use, the art of making use of all Nature's goods." (cited in Calame, 2009). Malpas, in setting out his arguments regarding the relational nature of place - as a bounded space-time - explains a shift in modern thinking regarding the meaning of space and its conceptual dissociation from place, through its being thought of as pure extension (*kenon*) and thus excluding the possibility of space as bounded, as space contained (*choros*). This arises from an increasing emphasis on physical theory (Malpas, 2012). There are parallels here with the emergence of modern conceptions of economics, being an embrace of the physical and mathematical, and a rejection of natural law as the basis for the political economy (see Calame, 2009; Gammon, 2010; Alonzi, 2021). Consequently, the modern global capitalist economy has, I suggest, become *place-less* – that is, divorced from the natural elements, through for example, the production of abstract commodities (e.g. carbon credits, Debt for Nature swaps, Smith, 2007 - cf

Marx's 'subsumption of nature[60]' and 'metabolic rift[61]', Graham, 2020: ch3; 'second contradiction of capitalism[62]', O'Connor, 1988) and forces of 'things in place' - their boundedness and movement – and instead operates in the mode of an unbounded, abstract extension as the 'global marketplace'. Thus, free trade, capital mobility, global value chains connecting distant markets, etc., operate with little reference to or connection to place (cf Polanyi on the dislocation of the market economy from traditional society and social relations. Polanyi, 1944) and so fail to acknowledge the particularities of place (as social/natural relations) and consequently reinforce unsustainable demands on natural resources. Today, the inequalities that this globalised, capitalist system ultimately produced are the topic of much debate and scholarship. At a macro-level, concepts such as degrowth, post-growth and steady-state economies have been proffered as alternative paradigms (Koch, 2015). At a micro-level, attention has turned to how capitalist economies might be organised differently and towards more equitable outcomes. Cooperative enterprises, and traditional economic systems feature in this debate. Gibson-Graham (2008) proposes a 'diverse economies' framework to envision and to document a 'more-than-capitalist' world of alternative and ethical ways of living (Gibson-Graham and Dombroski, 2020). Said and MacMillan (2020), commenting on BE relations in Malta, suggest alternative and ethical economic models could co-exist alongside the capitalist BE, given adequate protections.

4.0 Conclusion: A blue œconomy

In this spirit, I conclude this paper with a proposal for an alternative model for the BE which, borrowing from Calame (2009), I call a *blue oeconomy*. Its inspiration is the classical understanding

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[60] Subsumption of nature is an extension of Marx's thesis on the subsumption of labour by capital. It refers to the entraining of nature into the capitalist processes of accumulation as with, for example, financialised abstractions such as nature or carbon credits.

[61] Metabolic rift refers to Marx's observation that the capitalist society concentrated populations in towns and factories. These growing populations were dependent on distant agricultural production which itself had become dependant on distant natural (e.g. sources of phosphate to boost fertility) and technological (e.g. labour saving machinery) resources.

[62] The second contradiction is that the conditions of production - human labor power, nature (or environment), and space (or infrastructure) - are things that are traded as if they were commodities, even though they are not produced as commodities.

of *oeconomy* (both an *oeconomy* of the home, and a political *oeconomy* of the State) and its prudent use of natural resources to meet essential human needs, but not to excess. In this it is an ethical paradigm, embodying social and environmental justice, and one rooted in 'place', in the bounded space-time relations that mark out one community from the next. This would be a 'small' and local economy, respecting the boundedness of spatial relations in the physical world. It would embrace various aspects of time - taking place, change, movement, coming into being - enabling adaptations to uncertainty, innovation (to adapt to change), and resilience. A BE dispositif based on principles of *oeconomy* would aim for community-based management, an 'ethical disposition' towards natural resources such that essential needs of all are met, but through prudent management waste and over-exploitation are avoided. This is a place-based approach, in which familial and community ties generate a co-responsibility between resource users to utilise resources equitably (both in space and time) so that present and future needs of the community are met. Demands reflect what resources are available in that place - lifestyles and livelihoods are shaped by the landscapes and resources within which the community resides (its *oikos*), rather than by global consumer and market trends. Over time, as resource availability and community needs change, the principle of prudence ensures that communities adapt their lifestyles and livelihoods to maintain equity within and between communities. National and Regional policy would create enabling measures for community-led management, and provide the mechanisms for inter-community equity, so ensuring resource sustainability.

In order to implement a *blue œconomy* resources should be invested at community level. Guided by principles of prudence and equity, communities should be given responsibility for managing their own *oikos* through forms of co-management – access to resources and knowledge, and collaborative governance arrangements - the foundation of a *blue œconomy* dispositif. The benefits of the *blue œconomy* should be shared and invested for the benefit of all, fostering practices of mutual support and care. Prudence suggests adaptation as resource availability or demands on it change. Therefore,

communities need the capacities to adapt to change, to innovate, and to adapt practices based on a deep understanding of community-resource relations in space and time. We can see elements of this vision in the cases analysed herein, in Gazi, Watamu, Lamu and Paté. Co-management arrangements – community forest associations and management agreements; locally managed marine areas; community conservancies – provide the basis for a *blue œconomy* in Kenya. In the Mikoko Pamoja project, revenues from carbon credits generated by community action to conserve their local mangrove forest are used to invest in community infrastructure (distribution pipes and access points to provide better access to safe, clean drinking water. GComm). In Watamu (Debaso creek 'Crab Shack' and Prawn Lake), the initial coming together to address shared concerns regarding over-exploitation of the mangrove for firewood, has led to the emergence of community-led enterprises (through processes of innovation and adaptation) which not only act to conserve mangrove resources but also employ people, and generate dividends for those who have invested time, money and resources in the enterprise (ENT 1 & 2). On Paté Island, in response to over-fishing, the community tested and adopted a closed season to enable octopus stocks to recover between harvests (PIMCC 1, 2 & 3). Communities in Lamu have joined forces, in the Save Lamu alliance, to defend their historic rights to land and natural resources in the face of a distant governmental project poorly informed of their needs (Save Lamu).

However, in arguing for a community-scale BE, I do not argue *against* the need for national and regional BE policy. On the contrary, the ecosystems on which communities depend for resources extend beyond individual communities and beyond State boundaries. Coordination of policy is necessary at a range of scales in response to the spatial characteristics of ocean resources, and the collaborative rationality of ocean governance described in Midlen (2023) remains vital. New technologies create new possibilities for exploitation of the ocean's natural wealth, but these may of necessity operate at scales incommensurate with community capacities. Offshore wind power is an obvious example, for which technological and capital demands are intense. Further, the global

economy cannot be ignored. The demand of international markets, the mobility of capital, the near-ubiquity of IUU fishing, to cite just some examples, present systemic risks to the community-scale BE vision. Gibson-Graham's (2008) 'diverse economies' represents a framework within which distinctive cultural approaches to natural resource management are acknowledged and valued. Widespread application of co-management in a *blue œconomy* model, as a mechanism to secure community use rights for resources such as mangrove forest, coral reef fisheries etc, would secure food and livelihoods for coastal communities. Governmental technologies such as marine spatial planning, equitably deployed, could provide mechanisms to resolve conflict, i.e. to prevent insecurity, between community-based and more industrial uses of ocean resources. Authorities should ensure that a 'collaborative BE governmentality' (Midlen, 2023) is attuned to the variations in scale at which decisions are made (community, national, regional, global) and how the consequent territorialisations of BE intersect.

4. Thesis conclusion

In this thesis I have aimed to shed new light on the nature of the BE as a development paradigm, from a spatialised governance perspective. I have used a Foucaultian methodology, augmented with a place-based analytic, to consider sites of power and resistance and the role of spatial and material particularities in power relations and the consequent impacts of BE operationalisation, or enactment. I have identified a strong collaborative rationality running through BE governance, at all levels of organisation, reflecting the nature of the ocean as a fluid, dynamic and shared space. I have connected this to the imperative of food and livelihood security in many African nations, and the need to reverse environmental degradation. In summary, in the four papers in this thesis I have: 1) noted the capacity for BE initiatives to deliver regressive outcomes (e.g. resource capture, inequality) and have argued for the importance of 'place'; 2) analysed the rationality underpinning BE as a sustainable development approach, and how it is enacted in the Western Indian Ocean (WIO) to effect the governmentalisation of a shared ocean space; 3) demonstrated how practices of inscription and subjectification are used to (re)territorialise the oceans as blue economy spaces; and 4) characterised the BE as a security dispositif which has arisen in response to an urgent need regarding food and livelihood security concerns and continuing environmental degradation in Africa and the WIO region, and call for more attention to be paid to the emergent space-time relations of the dispositif 'in place'. I have called for a rethinking of environmental governance, invoking a long tradition of philosophical thought to propose a *blue œconomy* built around communities and place-based relations.

My research has identified a myriad of spatial factors at work in the blue economy dispositif - shared resources, regional disparities, biophysical variations (leading to differential distributions of

resources, populations etc), temporal periodicity (e.g. annual migration cycles), differential access to resources, markets, and more. These spatial factors matter because:

- Territorialisation, in the sense of inscription of space, is complicated by ecosystem processes and the geographical limits of States' powers

- Knowledges underpinning the discourse are complex (environmental processes, multiple uses and users, multiple policy instruments etc) and not fully understood by all actors

- Creation of subjects is complex in unregulated systems and over multiple jurisdictions (e.g. flag States, ABNJ), restricting the reach and efficacy of a BE governmentality

- Surveillance is challenging due to scale, remoteness of administrative centres from use zones, and their intersection with multiple and often transnational jurisdictions

- The reterritorialization of governmental relations and regimes in relation to the BE (shared space, collaborative government) is complex (open access, international jurisdictions, informal economy etc) and open to counter conducts.

These factors have given rise to multiple BE dispositifs, each mediated in response to place. They operate at differing scales, overlap and intersect, and are fluid over time. A high-level rationality of collaboration, a collaborative blue economy governmentality, is at work. This is, itself, a form of global governmentality which acts to enrol States in the global BE paradigm and, in turn, communities, individuals, and all manner of enterprises.

This research has shown that the technologies and practices of the BE dispositif are diverse, but can be distilled into five categories:

- **Discourses** - of security (food, livelihoods etc), climate change, etc which frame problems and solutions

- **Inscription devices & enclosure** – mapping, registration (eg of fishers), standards, enclosure (eg MPAs), monitoring and reporting systems, etc

- **Knowledge processes and outputs** – principles, protocols, valuations (accounting systems), assessments & modelling, visions

- **Coordination mechanisms** - agreements/declarations/mandates etc; partnerships; networks and conferences (stakeholders/experts); strategies, action plans and programmes; campaigns; task force/expert group; spatial designations; education and capacity building

- **Institutions** - laws, agreements and conventions, legal frameworks and entities, cultural norms, protocols, codes and standards.

BE policy and programmes should acknowledge the role of these technologies and practices and recognise that they need to be developed *together* in an integrated approach.

From this study of the BE *enactment* in the WIO region, can we determine some principles for BE *development* elsewhere? The importance of BE policy to accommodate place-based factors is clear. I would argue in fact that they should not aim to accommodate them but be constructed *from* them. Whilst every place is different, there are common spatialities which can be taken into account: ocean currents and annual fluxes of the marine life they bring; environmental heterogeneity in general; the awkward intersection of administrative jurisdictions and natural systems; the will of communities and individuals to determine their own future; the tendency to overexploit common pool resources in the absence of appropriate institutions to manage use; the challenges presented by large scale change to indigenous and remote communities; population growth and demographic change; and global environmental change (particularly sea level rise, ocean acidification, and changing weather patterns). The role of security and risk in the discourse reflects real concerns regarding food and livelihood security and the impacts of continued environmental degradation, and point the way to risk-based solutions based on subjectification and inscription: data gathering and

statistical monitoring; identification and registration of resource users; and the introduction of regulations, codes and standards to limit harmful activities; etc.

I asked in my research question if the BE paradigm represented a real shift in ocean governance. I argue that it does. As a development paradigm it shines a light on new frontiers for development and represents an economisation of the oceans. In practice, environmental concerns are often relegated to zones for nature conservation, risking a two-speed approach with economic development, and consequent environmental degradation, prioritised in large areas of the oceans. More integrated approaches in which economic development and good environmental governance are developed together are in their infancy. The MSP process in Seychelles has promise, but its ultimate goal is still to promote development. At a smaller scale, community-led initiatives and enterprises in Kenya, variations on co-management, offer more hope, I argue, for sustainable ocean and coastal management. Small and manageable in scale and designed to reverse existing declines in environmental quality (plastic waste, mangrove logging, over-fishing etc) they hold great potential.

4.1 Theoretical framing: a summary

I aimed to develop a spatialised governmentality analysis in this thesis. This evolved as a fusion between Dean's (1999) governmentality analytic and Malpas' (2012) philosophical analysis of the nature of place. It proved a valuable approach, bringing environmental spatialities to the fore, illuminating governmental practices in complex spaces, and enabling consideration of development trajectories. By way of summary, Figure 4.1 illustrates my interpretation of the interactions between the concepts of governmentality, place, and development.

Place, being a site of natural resource exploitation, and ultimately also of its governance, is a bounded space-time comprising heterogeneous relations between human and non-human entities. Each place at any point in time is comprised of a unique constellation of socio-material spatial relations. Over time these relations are re-ordered in response to internal and external forces.

Governance is one such force, power exerted through governance being a relation that includes, excludes, or privileges some over others. The character of that governance, its governmentality, bears on the re-ordering of relations. Thus, different governmentalities give rise to different space-times. However, these space-times are co-produced as the product of a dispositif of entangled human and spatio-material elements. Hence each place evolves differently through space and time even if the governance 'variable' remains constant. We can equate this production of bounded space-times to imaginaries of development, and recognise that there are multiple BE imaginaries and therefore choices to be made over BE policy objectives and which modalities of implementation to deploy in specific places.

I have identified a collaborative governmentality as a major governance paradigm in the WIO region, reflecting the need of relatively small and poor States to collaborate over a shared space, sharing resources and capacities for mutual benefit. This is in response to socio-material spatial forces that are difficult or impossible to control, and which represent key risks: natural ocean processes, human demographics, environmental degradation, and various 'counter conducts'. I have called for efforts to achieve a *blue œconomy* as a place-based approach to development which is more attuned to these forces and to community needs than the globalised alternatives. I believe that these insights will be valuable for BE policy development and implementation, in particular in highlighting the centrality of place-based policy.
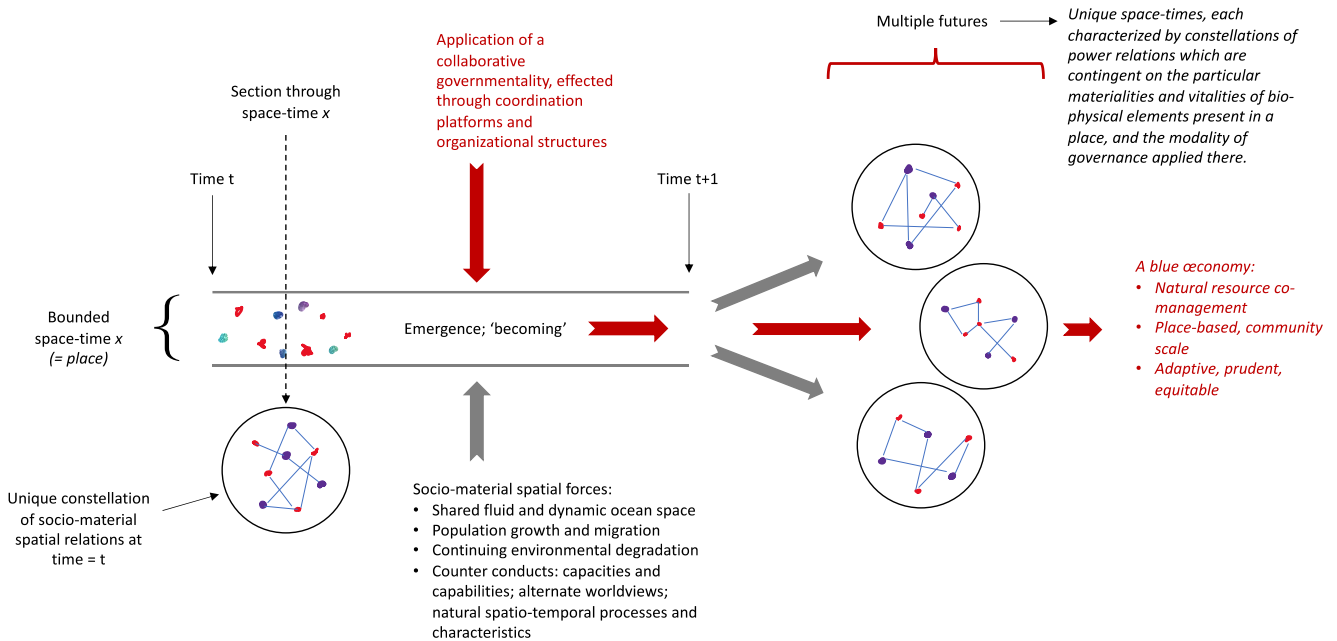
Theoretical framing

Figure 4.1. Theoretical foundations: place, space, time and governance

4.2 Research directions

The BE is a new development paradigm, being promoted at a global level. It is intended to open new frontiers for development in pursuit of the sustainable development goals. Its internal tensions between environment and development have not yet been resolved, and this threatens a furthering of social and environmental inequalities as a result of an economisation of the oceans. Revealing the emerging character of the BE and its outcomes for society and environment is a vital task for future scholarship.

Further research on emerging blue economy power relations should focus on the **new institutions** being created in tandem with blue economy policies - marine spatial planning, transboundary and highly migratory fish stock recovery plans, management of Areas Beyond National Jurisdiction, and

so on – to understand their role in producing ocean space and their implications for the exercise of power in the oceans. In particular, MSP in Seychelles has been developed through a well-documented process that promises to yield valuable insights into stakeholder engagement and policy trade-offs. The effect of MPAs alongside other use zones will enable an assessment of how well BE policy is meeting its goals 'in the round'.

This thesis has shown the potential of **co-management** as a foundation of the BE. Co-management business models for blue carbon, eco-tourism, sustainable fisheries and their value chains, locally managed marine reserves, and more need to be developed and tested, analysed to identify their success factors, promoted widely, and their transferability assessed. In Kenya, in particular, a variety of co-management approaches were evident and bear further analysis as to success factors, limitations and so on.

I have argued in favour of place-based policy, but there is little development of such in a BE context. What are the key elements of **place-based BE policy**, and how can it be successfully implemented? Analysis of practical cases of BE implementation will yield valuable insights. Fisheries reform perhaps offers an interesting case. Kenya and Seychelles have management units at very different scales (local BMUs versus the whole Mahé Plateau, respectively) with significant implications for policy and operations, and who is involved, who benefits and who loses.

Looking forward, which is my aim in this thesis, to how the BE might become, or emerge over time it is important to recognise that any particular future is the sum of choices made - futures are historically contingent. Choices represent trade-offs, one option being privileged over another. Understanding the **key trade-offs** in the BE, regarding economy versus environment, regarding one sector versus another, regarding sector development options etc., is vital to inform the achievement of sustainable development, a just BE, and ultimately the SDG targets.

Continued research is needed on **BE finance**, to understand its immanent power relations and their potential effects on community, environment and development. Policy makers need to understand what business models are successful in securing finance without loss of community benefit and also how they contribute to environmental recovery, in order to design effective policy and financial instruments. This research has revealed the capacity constraints for BE governance, so how can finance be secured to support governance as well as exploitation of the oceans? Blue Carbon (finance for carbon sequestration in aquatic ecosystems) has been an element within this research, and the Mikoko Pamoja case has revealed some important dynamics in the financialisation or otherwise of community-based biodiversity resources. The Mascarene Plateau (Seychelles) also has significant blue carbon potential, but its scale and remoteness make community-based management impractical. The two make an interesting contrast with wider relevance.

Another important research theme is to understand how **alternative BE management** models can be accommodated side by side, retaining their respective scalar differences, to protect community resources and allow for local specificities whilst also enabling key sectors to develop. For example, how could licencing regimes for tuna resources in northern Kenya secure community access to catch, alongside industrial scale fishing fleets and the rights granted to them?

4.3 Policy recommendations

My research on the BE as enacted in the WIO region has revealed many challenges, four of which I highlight here as policy priorities.

First concerns the need to **build institutional, organisational and individual capacities** for BE development. The BE is, as yet, immature and much work is needed to build capacities at all levels.

In particular MSP is still a new tool and open to co-option by vested interests, collaborative platforms for coordination of policy and action are fragmented along sectoral lines, and understanding of the BE is poor amongst many actors. Therefore, new platforms are needed for greater policy integration and stakeholder engagement, and new education and training programmes are needed, at all levels of governance. We see examples of these responses in the WIO region (eg SAPPHIRE, SWIOFISH3, GoBlue projects) and elsewhere. My research suggests many more will be needed and the level of activity stepped up if BE goals are to be achieved.

Second, **co-management arrangements** enable sustainable, natural resource-based community-led BE development. Innovative organisational and business models exist, but are poorly documented and poorly known, limiting knowledge transfer and, ultimately, sustainable BE development. Understanding how and why they work, and widely disseminating that knowledge should be a priority. Kenya appeared to be a particularly rich source of bottom-up innovation, with cooperatives (eg Kibuyuni Seaweed farmers), Conservancies (Paté Island), informal, cooperative-like associations (Crab Shack and Prawn Shack), new companies with new business models (e.g. Kumbatia Seafood), and more. In Seychelles in contrast, Debt for Nature Swap and Blue Bond financing was being used to support and stimulate innovation. These emerging BE ecosystems should be supported and enabled.

Third, **project development costs** for community-led BE projects, especially blue carbon, can be prohibitive. Commercial finance increases risk and leads to significant leakage of community benefits. Public and philanthropic funding should be made available instead to support initial project development, as in the Mikoko Pamoja project in Kenya. Doing so has enabled the community to benefit significantly from carbon credit revenues, investing in water supply infrastructure for example, which would not have been possible with a more conventional equity or debt investment model.

Fourth, continued research is needed to understand the BE as it evolves. In particular, **the nature of BE socio-material relations** bears much greater scrutiny as the basis for **place-based policy**. This research has revealed the critical role of spatial socio-material relations, and I argue these are unique from place to place. But are there commonalities amongst these relations that would provide the basis for more general governance and relational theory?

4.4 Concluding remarks

The BE represents a paradigm shift in ocean governance, an economisation of ocean resources and a 'great acceleration' of claims on them by States, international agencies, and corporations. Against a background of increasingly rapid climate change and biodiversity loss, the blue economy demands serious attention. Whilst the oceans undoubtedly host vast resources which, used sustainably, could greatly advance humankind, the risks of unsustainable use not only remain but, I would argue, are exacerbated by the development of the blue economy. Society, at all levels, urgently needs to invest in research to understand better the functioning of ocean systems, the status of habitats and species, and what effects human activities are having on them. Getting governance right is critical to making the complex and nuanced trade-offs needed to balance the competing goals of human social and economic development on the one hand, and environmental conservation on the other. I argue here for a more modest, prudent and equitable approach to BE development, in contrast to the grand ambitions of many.

REFERENCES

Agrawal, A. (2005). Environmentality. *Current Anthropology*, *46*(2), 161–190.

Allen, J. (2004). The whereabouts of power: Politics, government and space. *Geografiska Annaler, Series B: Human Geography*, *86*(1), 19–32. https://doi.org/10.1111/j.0435-3684.2004.00151.x

Alonzi, L. (2021). The term "political oeconomy" in Adam Smith. *Intellectual History Review*, *31*(2), 321–339. https://doi.org/10.1080/17496977.2020.1738808

Anderson, B., & McFarlane, C. (2011). Assemblage and geography. *Area*, *43*(2), 124–127. https://doi.org/10.1111/j.1475-4762.2011.01004.x

Andriamahefazafy, M., & Kull, C. A. (2019). Materializing the blue economy: tuna fisheries and the theory of access in the Western Indian Ocean. *Journal of Political Ecology*, *26*(1), 403–424.

Andriamahefazafy, M., Bailey, M., Sinan, H., & Kull, C. A. (2020). The paradox of sustainable tuna fisheries in the Western Indian Ocean: between visions of blue economy and realities of accumulation. *Sustainability Science*, *15*(1), 75–89. https://doi.org/10.1007/s11625-019-00751-3

Anon (2016). The Lamu County Biocultural Community Protocol. Save Lamu, Lamu, Kenya

Aradau, C., & Blanke, T. (2010). Governing circulation: A critique of the biopolitics of security. In M. de Larrinaga & M. G. Doucet (Eds.), *Security and Global Governmentality: Globalization, Governance and the State.* Routledge. https://doi.org/10.5860/choice.51-2973

Arsel, M., & Büscher, B. (2012). Nature™ Inc: Changes and Continuities in Neoliberal Conservation and Market-based Environmental Policy. *Development and Change*, *43*(1), 53–78. https://doi.org/10.1111/j.1467-7660.2012.01752.x

Aschenbrenner, M., & Winder, G. M. (2019). Planning for a sustainable marine future? Marine spatial planning in the German exclusive economic zone of the North Sea. *Applied Geography*, *110*, 1-9

AU (2012). Africa Integrated Maritime Strategy. African Union

AU (2016) African Charter on Maritime Security and Safety and Development in Africa (Lomé Charter).

AU-IBAR (2019). Africa Blue Economy Strategy. Nairobi, Kenya.

AU-IBAR (2020). Africa Blue Economy Strategy Implementation Plan, 2021-2025.

Baerg, A. (2014). Neoliberalism, Risk, and Uncertainty in the Video Game. In: Capital at the Brink: Overcoming the Destructive Legacies of Neoliberalism. Di Leo, J.R. & Mehan, U. (eds). Open Humanities Press, Michigan, USA. DOI: http://dx.doi.org/10.3998/ohp.12832551.0001.001

Balke, J., Reuber, P., & Wood, G. (2018). Iconic architecture and place-specific neoliberal
governmentality: Insights from Hamburg's Elbe Philharmonic Hall. *Urban Studies*, *55*(5), 997–
1012. https://doi.org/10.1177/0042098017694132

Barbesgaard, M. (2018). Blue growth: savior or ocean grabbing? *Journal of Peasant Studies*, *45*(1),
130–149. https://doi.org/10.1080/03066150.2017.1377186

Bear, C. (2017). Assembling ocean life: More-than-human entanglements in the Blue Economy.
Dialogues in Human Geography, *7*(1), 27–31. https://doi.org/10.1177/2043820617691635

Beck, U., (1992) Risk Society, Towards a new Modernity London Sage

Bennett, N. J. (2018). Navigating a just and inclusive path towards sustainable oceans. *Marine Policy*,
97, 139–146. https://doi.org/10.1016/j.marpol.2018.06.001

Bennett, N. J., Blythe, J., White, C. S., & Campero, C. (2021). Blue growth and blue justice: Ten risks
and solutions for the ocean economy. *Marine Policy*, *125*(March), 104387.
https://doi.org/10.1016/j.marpol.2020.104387

Bennett, N. J., Cisneros-Montemayor, A. M., Blythe, J., Silver, J. J., Singh, G., Andrews, N., Calò, A.,
Christie, P., Di Franco, A., Finkbeiner, E. M., Gelcich, S., Guidetti, P., Harper, S., Hotte, N.,
Kittinger, J. N., Le Billon, P., Lister, J., López de la Lama, R., McKinley, E., … Sumaila, U. R. (2019).
Towards a sustainable and equitable blue economy. In *Nature Sustainability* (Vol. 2, Issue 11, pp.
991–993). Nature Publishing Group. https://doi.org/10.1038/s41893-019-0404-1

Bennett, N. J., Govan, H., & Satterfield, T. (2015). Ocean grabbing. *Marine Policy*, *57*, 61–68.
https://doi.org/10.1016/j.marpol.2015.03.026

Biermann, F., & Pattberg, P. (2008). Global Environmental Governance: Taking Stock, Moving
Forward. *Annual Review of Environment and Resources*, *33*(1), 277–294.
https://doi.org/10.1146/annurev.environ.33.050707.085733

Blythe, J. L., Armitage, D., Bennett, N. J., Silver, J. J., & Song, A. M. (2021). The Politics of Ocean
Governance Transformations. *Frontiers in Marine Science*, *8*(July), 1–12.
https://doi.org/10.3389/fmars.2021.634718

Bogadóttir, R. (2020). Blue Growth and its discontents in the Faroe Islands: an island perspective on
Blue (De)Growth, sustainability, and environmental justice. *Sustainability Science*, *15*(1), 103–115.
https://doi.org/10.1007/s11625-019-00763-z

Bohle, J. (2018). Hurricane-riskscapes and governmentality. *Erdkunde*, *2*(June), 91–102.

Bornemann, B. (2021). Environmental Governance in the Anthropocene: Challenges, Approaches
and Critical Perspectives. In: Chandler, D., Müller, F., Rothe, D. (eds) International Relations in the
Anthropocene. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-53014-3_17

Boucquey, N., Fairbanks, L., St. Martin, K., Campbell, L. M., & McCay, B. (2016). The ontological politics of marine spatial planning: Assembling the ocean and shaping the capacities of "Community" and "Environment." *Geoforum*, *75*, 1–11. https://doi.org/10.1016/j.geoforum.2016.06.014

Boucquey, N., Martin, K. S., Fairbanks, L., Campbell, L. M., & Wise, S. (2019). Ocean data portals: Performing a new infrastructure for ocean governance. *Environment and Planning D: Society and Space*, *37*(3), 484–503. https://doi.org/10.1177/0263775818822829

Braun, B. P. (2014). A new urban dispositif? governing life in an age of climate change. *Environment and Planning D: Society and Space*, *32*(1), 49–64. https://doi.org/10.1068/d4313

Bresnihan, P. (2019). Revisiting neoliberalism in the oceans: Governmentality and the biopolitics of 'improvement' in the Irish and European fisheries. *Environment and Planning A*, *51*(1), 156–177. https://doi.org/10.1177/0308518X18803110

Brown, E., Cloke, J., Gent, D., Johnson, P. H., & Hill, C. (2014). Green growth or ecological commodification: Debating the green economy in the global south. *Geografiska Annaler, Series B: Human Geography*, *96*(3), 245–259. https://doi.org/10.1111/geob.12049

Bruntland G.H. (1987) Our Common Future. World Commission on Environment and Development. UN, New York

Bueger, C. (2015). What is maritime security? *Marine Policy*, *53*, 159–164. https://doi.org/10.1016/j.marpol.2014.12.005

Bueger, C., & Edmunds, T. (2017). Beyond seablindness: A new agenda for maritime security studies. *International Affairs*, *93*(6), 1293–1311. https://doi.org/10.1093/ia/iix174

Buseth, J. T. (2017). The green economy in Tanzania: From global discourses to institutionalization. *Geoforum*, *86*(April), 42–52. https://doi.org/10.1016/j.geoforum.2017.08.015

Bussolini, J. (2010). What is a dispositive. *Foucault Studies*, *10*, 85–107. https://doi.org/10.22439/fs.v0i10.3120

Caballero-Anthony, M. (2016). Understanding Non-traditional Security. In *An Introduction to Non-Traditional Security Studies: A Transnational Approach* (pp. 1–14). Sage Publications, London. https://doi.org/10.4135/9781473972308

Cadman, L. (2010). How (not) to be governed: Foucault, critique, and the political. *Environment and Planning D: Society and Space*, *28*(3), 539–556. https://doi.org/10.1068/d4509

Calame, P. (2009). From Economy to Oeconomy : In *"L'Essai sur l'oeconomie", Editions Charles-Léopold Mayer 2009. Translated from French by Michael C. Behrent.*

Campbell, C. J. (2018). Space, place and scale: Human geography and spatial history in past and present. *Past and Present*, *239*(1), e24–e45. https://doi.org/10.1093/pastj/gtw006

Campling, L., & Colás, A. (2018). Capitalism and the sea: Sovereignty, territory and appropriation in the global ocean. *Environment and Planning D: Society and Space*, *36*(4), 776–794. https://doi.org/10.1177/0263775817737319

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.

Casey, E. (1997). The Fate of Place: A Philosophical History. Univ. of California Press

Castel, R. (1991). 'From Dangerousness to Risk', in G. Burchell, C. Gordon and P. Miller, eds, The Foucault Effect: Studies in Governmentality. London: Harvester Wheatsheaf.

Castree, N. (2010a). Neoliberalism and the Biophysical Environment 1: What "Neoliberalism" is, and What Difference Nature Makes to it. *Geography Compass*. https://doi.org/10.1111/j.1749-8198.2010.00405.x

Castree, N. (2010b). Neoliberalism and the Biophysical Environment 2: Theorising the Neoliberalisation of Nature. *Geography Compass*. https://doi.org/10.1111/j.1749-8198.2010.00407.x

Cavanagh, C. J., & Benjaminsen, T. A. (2017). Political ecology, variegated green economies, and the foreclosure of alternative sustainabilities. *Journal of Political Ecology*, *24*, 200–216.

Childs, J. (2020). Performing `blue degrowth': critiquing seabed mining in Papua New Guinea through creative practice. *Sustainability Science*, *15*(1, SI), 117–129.

Childs, J. R., & Hicks, C. C. (2019). Securing the blue: political ecologies of the blue economy in Africa. *Journal of Political Ecology, 26*(1), 323–340. https://doi.org/10.2458/v26i1.23162

Choi, Y. R. (2017). The Blue Economy as governmentality and the making of new spatial rationalities. *Dialogues in Human Geography*, *7*(1), 37–41. https://doi.org/10.1177/2043820617691649

Christiansen, J. (2021). Fixing fictions through blended finance: The entrepreneurial ensemble and risk interpretation in the Blue Economy. *Geoforum*, *120*(December 2020), 93–102. https://doi.org/10.1016/j.geoforum.2021.01.013

Cohen, P. J., Allison, E. H., Andrew, N. L., Cinner, J., Evans, L. S., Fabinyi, M., Garces, L. R., Hall, S. J., Hicks, C. C., Hughes, T. P., Jentoft, S., Mills, D. J., Masu, R., Mbaru, E. K., & Ratner, B. D. (2019). Securing a Just Space for Small-Scale Fisheries in the Blue Economy. *FRONTIERS IN MARINE SCIENCE*, *6*(MAR). https://doi.org/10.3389/fmars.2019.00171

Corson, C., Macdonald, K. I., & Neimark, B. (2013). Grabbing " Green ": Markets, Environmental Governance and the Materialisation of Naturral Capital. *Human Geography*, *6*(1).

Cosme, I., Santos, R., & O'Neill, D. W. (2017). Assessing the degrowth discourse: A review and analysis of academic degrowth policy proposals. *Journal of Cleaner Production*, *149*, 321–334. https://doi.org/10.1016/j.jclepro.2017.02.016

Coulson, H and Sonnino, R. (2019). Re-scaling the politics of food: Place-based urban food governance in the UK. Geoforum, Volume 98: 170-179. https://doi.org/10.1016/j.geoforum.2018.11.010.

Crampton ,J.W. and Elden , S. (2007). Space, knowledge and power: Foucault and geography. Ashgate, UK.

Cremonesi, L., Irrera, O., Lorenzini, D., & Tazzioli, M. (2016). *Foucault and the making of subjects* (L. Cremonesi, O. Irrera, D. Lorenzini, & M. Tazzioli (eds.)). Rowman & Littlefield International, Ltd.

Cresswell, T. (2009). Place. *International Encyclopedia of Human Geography Vol 8*, 169–171.

Davidson, D. J., & Frickel, S. (2004). Understanding environmental governance: A critical review. *Organization and Environment*, *17*(4), 471–492. https://doi.org/10.1177/1086026603259086

Dean, M. (1998). Risk, Calculable and Incalculable. *Soziale Welt*, *49*, 25–42.

Dean, M. (1999). Governmentality: Power and Rule in Modern Society. Sage

Dean, M. (2010a). Governmentality : Power and Rule in Modern Society. Sage Publications.

Dean, M. (2010b). Power at the heart of the present: Exception, risk and sovereignty. *European Journal of Cultural Studies*, *13*(4), 459–475. https://doi.org/10.1177/1367549410377147

Death, C. (2010). Counter-conducts: A foucauldian analytics of protest. *Social Movement Studies*, *9*(3), 235–251. https://doi.org/10.1080/14742837.2010.493655

Defert, D. (1991), "'Popular life" and insurance technology', in G. Burchell, C. Gordon and P. Miller (eds), The Foucault Effect: Studies in Governmentality, Chicago, IL: University of Chicago Press, pp. 211-233.

Dodgshon, R. (1998). *Society in Time and Space: A Geographical Perspective on Change*. Cambridge University Press, Cambridge, UK

Eikeset, A. M., Mazzarella, A. B., Davíðsdóttir, B., Klinger, D. H., Levin, S. A., Rovenskaya, E., & Stenseth, N. C. (2018). What is blue growth? The semantics of "Sustainable Development" of marine environments. *Marine Policy*, *87*(October 2017), 177–179. https://doi.org/10.1016/j.marpol.2017.10.019

Elmer, G (2012). Panopticon—discipline—control. In: Ball, K., Haggerty, K., & Lyon, D. (2012). *Routledge Handbook of Surveillance Studies*. https://doi.org/10.4324/9780203814949.ch2_1_c

Environmental Justice Atlas. Toxic waste dumping, Somalia. Accessed July 2021 https://ejatlas.org/conflict/somalia-toxic-waste-dumping-somalia;

Ertör-Akyazi, P. (2020). Contesting growth in marine capture fisheries: the case of small-scale fishing cooperatives in Istanbul. *Sustainability Science*, *15*(1), 45–62.

Ertör, I., & Hadjimichael, M. (2020). Editorial: Blue degrowth and the politics of the sea: rethinking the blue economy. *Sustainability Science*, *15*(1), 1–10. https://doi.org/10.1007/s11625-019-00772-y

Escobar, A. (1984). Discourse and Power in Development: Michel Foucault and the Relevance of his Work to the Third World. *Alternatives*, *X Winter (*377–400).

Ettlinger, N. (2011). Governmentality as epistemology. *Annals of the Association of American Geographers*, *101*(3), 537–560. https://doi.org/10.1080/00045608.2010.544962

European Commission (2018) Sustainable Blue Economy Finance Principles. Brussels

Evans, L. S., Buchan, P. M., Fortnam, M., Honig, M., & Heaps, L. (2023). Putting coastal communities at the center of a sustainable blue economy: A review of risks, opportunities, and strategies. Frontiers in Political Science, 5. https://doi.org/10.3389/fpos.2023.1182415

Ewald, E (1991), 'Insurance and risk', in G. Burchell, C. Gordon and P. Miller (eds), The Foucault Effect: Studies in Governmentality, Chicago, IL: University of Chicago Press, pp. 197-210.

Fabinyi, M., Wu, A., Lau, S., Mallory, T., Barclay, K., Walsh, K., & Dressler, W. (2021). China's Blue Economy: A State Project of Modernisation. *Journal of Environment and Development*, *30*(2), 127–148. https://doi.org/10.1177/1070496521995872

Fairhead, J., Leach, M., & Scoones, I. (2012). Green Grabbing: a new appropriation of nature? *Journal of Peasant Studies*, *39*(2), 237–271. https://doi.org/10.1080/03066150.2012.671770

Feindt, P. H., & Oels, A. (2005). Does discourse matter? Discourse analysis in environmental policy making. *Journal of Environmental Policy and Planning*, *7*(3), 161–173. https://doi.org/10.1080/15239080500339638

Ferguson, J., & Gupta, A. (2002). Spatializing States : Toward an Ethnography of Neoliberal Governmentality. *American Ethnologist*, *29*(4), 981–1002. https://doi.org/10.1037/h0098852

Ferguson, P. (2015). The green economy agenda: business as usual or transformational discourse? *Environmental Politics*, *24*(1), 17–37. https://doi.org/10.1080/09644016.2014.919748

Fish, A. (2022). Blue governmentality: Elemental activism with conservation technologies on plundered seas. *Political Geography*, *93*(August 2021), 102528. https://doi.org/10.1016/j.polgeo.2021.102528

Flannery, W., & McAteer, B. (2020). Assessing marine spatial planning governmentality. *Maritime Studies*. https://doi.org/10.1007/s40152-020-00174-2

Fletcher, R. (2010). Neoliberal environmentality: Towards a poststructuralist political ecology of the conservation debate. *Conservation and Society*, *8*(3), 171. https://doi.org/10.4103/0972-4923.73806

Fletcher, R. (2017). Environmentality unbound: Multiple governmentalities in environmental politics. *Geoforum*, *85*(June), 311–315. https://doi.org/10.1016/j.geoforum.2017.06.009

Fletcher, R. (2020). Diverse ecologies: Mapping complexity in environmental governance. *Nature and Space*, *3*(2), 481–502. https://doi.org/10.1177/2514848619865880

Fletcher, R., & Cortes-vazquez, J. A. (2020). Beyond the green panopticon : New directions in research exploring environmental governmentality. *Environment and Planning E: Nature and Space*, *3*(2), 289–299. https://doi.org/10.1177/2514848620920743

Folke, C., Polasky, S., Rockström, J., Galaz, V., Westley, F., Lamont, M., Scheffer, M., Österblom, H., Carpenter, S. R., Chapin, F. S., Seto, K. C., Weber, E. U., Crona, B. I., Daily, G. C., Dasgupta, P., Gaffney, O., Gordon, L. J., Hoff, H., Levin, S. A., Lubchenko, J., Steffen, W., Walker, B. H. (2021). Our future in the Anthropocene biosphere. In *Ambio* (Vol. 50, Issue 4). https://doi.org/10.1007/s13280-021-01544-8

Foucault, M. (1977). Discipline and Punish: The Birth of the Prison, translated by A. Sheridan. Penguin.

Foucault, M. ([1978] 1991) Governmentality. In: The Foucault Effect: Studies in Governmentality, edited by Graham Burchell, Colin Gordon and Peter Miller. Chicago: Chicago University Press.

Foucault, M. (1979) Discipline and Punish: The Birth of the Prison. Harmondsworth: Penguin.

Foucault, M. (1980) Power/Knowledge: Selected Interviews and Other Writings 1972–1977, ed. C. Gordon. New York: Pantheon.

Foucault, M. (1982). The Subject and Power. *Critical Inquiry*, *8*(4), 777–795. https://www.jstor.org/stable/1343197

Foucault, M. (1984). Des Espace Autres - Of Other Spaces: Utopias and Heterotopias. *Architecture /Mouvement/ Continuité*, *March 1967*, 1–9.

Foucault, M. (1985). *The Use of Pleasure: History of Sexuality, Vol. 2* (trans. R. Hurley). New York: Pantheon.

Foucault, M. (1990): The history of sexuality: volume 1. New York: Vintage (originally published in English in 1978).

Foucault, M. (1990). The history of sexuality. Translated by R. Hurley. Vintage Books, New York

Foucault, M. (1991). Governmentality. In G. BURCHELL, C. GORDON, and P. MILLER (eds.), *The Foucault Effect: Studies in Governmentality*. Cambridge: Cambridge University Press.

Foucault, M. (1997). On the genealogy of ethics: an overview of work in progress. In M. Foucault, *Ethics, Subjectivity and Truth: The Essential Works* (Ed. P. Rabinow, trans. R. Hurley) (pp. 253-280). Allen Lane: The Penguin Press.

Foucault, M. (1998) The Will to Knowledge: the history of sexuality volume 1 (London: Penguin Books), French original 1976.

Foucault, M. (2003) 'Society Must Be Defended'. Lectures at Collège de France 1975–1976. New York: Picador.

Foucault, M. (2005) *The Hermeneutics of the Subject: Lectures at the Collège de France, 1981 – 1982*, ed. Frédéric Gros, trans. Graham Burchell, English series ed., Arnold Davidson. New York: Picador.

Foucault, M. (2007) Security, Territory, Population. Lectures at the College De France, 1977 - 78. (Translated by Graham Burchell). **Eds** Michel Senellart, François Ewald, Alessandro Fontana. Palgrave Macmillan

Foucault, M. (2008), The Birth of Biopolitics: Lectures at the College de France 1978-1979, New York: Palgrave Macmillan.

Frost, T. (2019). The dispositif between Foucault and Agamben. *Law, Culture and the Humanities*, *15*(1), 151–171. https://doi.org/10.1177/1743872115571697

Fullerton, J. (2015) REGENERATIVE CAPITALISM. How Universal Principles And Patterns Will Shape Our New Economy. Capital Institute. http://capitalinstitute.org/wp-content/uploads/2015/04/2015-Regenerative-Capitalism-4-20-15-final.pdf

Gailing, L. (2016). Transforming energy systems by transforming power relations. Insights from dispositive thinking and governmentality studies. *Innovation*, *29*(3), 243–261. https://doi.org/10.1080/13511610.2016.1201650

Gammon, E. (2010). Nature as adversary: The rise of modern economic conceptions of nature. *Economy and Society*, *39*(2), 218–246. https://doi.org/10.1080/03085141003620154

Garland, M., Axon, S., Graziano, M., Morrissey, J., & Heidkamp, C. P. (2019). The blue economy: Identifying geographic concepts and sensitivities. *Geography Compass*, *13*(7), 1–21. https://doi.org/10.1111/gec3.12445

Gephart, R. P., Jr., Van Maanen, J., & Oberlechner, T. (2009). Organizations and risk in late modernity. Organization Studies . 30: 141-155

Germond-Duret, C. (2022). Framing the Blue Economy: Placelessness, Development and Sustainability. *Development and Change*, *53*(2), 308–334. https://doi.org/10.1111/dech.12703

Gibson-Graham J.K. (2008). Diverse economies: performative practices for 'other worlds'. *Progress in Human Geography*, *32*(5), 613–632. https://doi.org/10.1177/0309132508090821

Gibson-Graham J.K. (2014) Rethinking the economy with thick description and weak theory. Current Anthropology 55: 147–153.

Gibson-Graham, J.K. & Dombroski, K. 2020. *The Handbook of Diverse Economies*. Cheltenham, UK: Edgar Elgar.

Glaser S.M., Roberts P.M., Mazurek R.H., Hurlburt K..J, and Kane-Hartnett L. (2015). Securing Somali Fisheries. Denver, CO: One Earth Future Foundation. DOI: 10.18289/OEF.2015.001

Golden, J. S., Virdin, J., Nowacek, D., Halpin, P., Bennear, L., & Patil, P. G. (2017). Making sure the blue economy is green. *Nature Ecology and Evolution*, *1*(2), 1–3. https://doi.org/10.1038/s41559-016-0017

Graham, N. (2020) Forces of Production, Climate Change and Canadian Fossil Capitalism. Studies in Critical Social Sciences, Volume: 179/03 New Scholarship in Political Economy, Volume: 179/03. Brill

Griggs, S., & Howarth, D. (2019). Discourse, policy and the environment: hegemony, statements and the analysis of U.K. airport expansion. *Journal of Environmental Policy and Planning*, *21*(5), 464–478. https://doi.org/10.1080/1523908X.2016.1266930

Guilfoyle, D. (2013). Prosecuting Pirates: The Contact Group on Piracy off the Coast of Somalia, Governance and International Law. Global Policy. 4 (1): 73-79

Hadjimichael M. (2018) A call for a blue degrowth: unravelling the European Union's fisheries and maritime policies. Mar Policy 94:158–164.

Hardy, C. and Maguire, S. (2010). Discourse, field-configuring events and change in organizations and institutional fields: Narratives of DDT and the Stockholm Convention. Academy of Management Journal. 53: 136

Hardy, C. and Maguire, S. (2016). Organising risk: discourse, power and "riskification". *The Academy of Management Review.* Vol. 41, No. 1 (January 2016), pp. 80-108 (29 pages)

Harvey, D. (1989). The Condition of Post Modernity, An Enquiry into the Origins of Cultural Change. Blackwell, Oxford.

Harvey, D. (1993). From space to place and back again. In Bird, J., Curtis, B., Putnam, T., Robertson, G. & Tickner, L. (eds.) Mapping the Futures: Local Cultures, Global Change, pp 3--29. London: Routledge.

Hedrén, J. (2009). Shaping sustainability: Is there an unreleased potential in utopian thought? *Futures*, *41*(4), 220–225. https://doi.org/10.1016/j.futures.2008.09.005

Hedrén, J., & Linnér, B. O. (2009). Utopian thought and sustainable development. *Futures*, *41*(4), 197–200. https://doi.org/10.1016/j.futures.2008.09.002

Heidegger, M. (1993). Building, dwelling, thinking. In Ferrell Krell, D. (ed.) Martin Heidegger: Basic Writings, pp 361--362. London: Routledge.

High Court of Kenya (2018). Final Judgement on Petition 22 of 2012, concerning the design and implementation of the Lamu Port-South Sudan-Ethiopia-Transport Corridor project ("the LAPSSET Project"). Republic of Kenya, Nairobi. http://kenyalaw.org/caselaw/cases/view/156405

Hindess, B. (2005). Politics as Government : Michel Foucault's Analysis of Political Reason. *Alternatives*, *30*(4), 389–413.

Høghøj, M. (2020). Planning Aarhus as a welfare geography: urban modernism and the shaping of 'welfare subjects' in post-war Denmark. *Planning Perspectives*, *35*(6), 1031–1053. https://doi.org/10.1080/02665433.2019.1672207

Hook, D. (2001). Discourse, Knowledge, Materiality, History: Foucault and discourse analysis. *Theory and Psychology*, *11*(4), 521–547.

Huber, C., & Scheytt, T. (2013). The dispositif of risk management: Reconstructing risk management after the financial crisis. *Management Accounting Research*, *24*(2), 88–99. https://doi.org/10.1016/j.mar.2013.04.006

ILO (2021). The informal economy in Kenya. International Labour Organisation and Federation of Kenya Employers. https://www.ilo.org/empent/Publications/WCMS_820312/lang--en/index.htm

IMO (2009). The Code of Conduct concerning the Repression of Piracy and Armed Robbery against Ships in the Western Indian Ocean and the Gulf of Aden (Djibouti Code of Conduct).

IMO (2017). Jeddah Amendment to the Djibouti Code of Conduct 2017.

Ingold, T. (2000). The Perception of the Environment: Essays in Livelihood, Dwelling and Skill. Routledge, London

Ingold, T. (2008). Against space: Place, movement, knowledge. *Boundless Worlds: An Anthropological Approach to Movement*, 29–43.

Innes, A. J., & Steele, B. J. (2012). Governmentality in Global Governance. *The Oxford Handbook of Governance*, (November), 1–15. https://doi.org/10.1093/oxfordhb/9780199560530.013.0050

IOC (2019). Maritime Security: Building the Future Together. Indian Ocean Commission

Isaacs, M. (2019). *Is the Blue Justice concept a human rights agenda?* (Issue November).

IUCN (1980). World Conservation Strategy. Gland, Switzerland

Jacobs, M. (1991). The green economy: environment, sustainable development and the politics of the future. London: Pluto Press.

Jacobs, M. (2012). Green Growth : Economic Theory and Political Discourse. *Centre for Climate Change Economics and Policy Working Paper*, *108*, 1–24.

Jaeger, H. (2010). UN reform, biopolitics, and global governmentality. *International Theory (2010), 2*, 50–86. https://doi.org/10.1017/S

Joseph, J. (2009). Governmentality of what? Populations, states and international organisations. *Global Society*, *23*(4), 413–427. https://doi.org/10.1080/13600820903198685

Joseph, J. (2010). Poverty reduction and the new global governmentality. *Alternatives*, *35*(1), 29–51. https://doi.org/10.1177/030437541003500102

Jouffray, J.-B., Blasiak, R., Norström, A. V., Österblom, H., & Nyström, M. (2020). The Blue

　　Acceleration: The Trajectory of Human Expansion into the Ocean. *One Earth*, *2*(1), 43–54.

　　https://doi.org/10.1016/j.oneear.2019.12.016

Kairo, J., Mbatha, A., Murithi, M. M., & Mungai, F. (2021). Total Ecosystem Carbon Stocks of

　　Mangroves in Lamu, Kenya; and Their Potential Contributions to the Climate Change Agenda in

　　the Country. *Frontiers in Forests and Global Change*, *4*(October), 1–15.

　　https://doi.org/10.3389/ffgc.2021.709227

Karkare, P., Calabrese, L., Grimm, S., & Medinilla, A. (2020). *European fear of "missing out" and*

　　narratives on China in Africa (Issue October). www.ettg.eu

Karnad, D., & St. Martin, K. (2020). Assembling marine spatial planning in the global south:

　　International agencies and the fate of fishing communities in India. *Maritime Studies*.

　　https://doi.org/10.1007/s40152-020-00164-4

Kaşdoğan, D. (2020). Designing sustainability in blues: the limits of technospatial growth imaginaries.

　　Sustainability Science, *15*(1), 145–160.

Kathijotes, N. (2013). Keynote: Blue Economy - Environmental and Behavioural Aspects Towards

　　Sustainable Coastal Development. *Procedia - Social and Behavioral Sciences*, *101*, 7–13.

　　https://doi.org/10.1016/j.sbspro.2013.07.173

Kathijotes, N. (2013). Keynote: Blue Economy - Environmental and Behavioural Aspects Towards

　　Sustainable Coastal Development. *Procedia - Social and Behavioral Sciences*, *101*, 7–13.

　　https://doi.org/10.1016/j.sbspro.2013.07.173

Kedia, S., & Gautam, P. (2020). Blue economy meets international political economy: The emerging

　　picture. *Maritime Affairs*, *16*(2), 46–70. https://doi.org/10.1080/09733159.2020.1845457

Kerschner, C., Wächter, P., Nierling, L., & Ehlers, M. H. (2018). Degrowth and Technology: Towards

　　feasible, viable, appropriate and convivial imaginaries. *Journal of Cleaner Production*, *197*, 1619–

　　1636. https://doi.org/10.1016/j.jclepro.2018.07.147

Kimani, E.N., Aura, M.C., Okemwa, G.M. (eds.) (2018). The Status of Kenya Fisheries: Towards the

　　sustainable exploitation of fisheries resources for food security and economic development.

　　Kenya Marine and Fisheries Research Institute (KMFRI), Mombasa. 135pp.

Kirsch, S. (1995) The Incredible Shrinking World? Technology and the Production of

　　Space. *Environment and Planning D: Society and Space* 13.5: 529–555.

Kirui, BK (2013). Importance and Dynamics of the Mangroves in Kenya. In Developments in Earth

　　Surface Processes Ch15 - Editor(s): Paolo Paron, Daniel Ochieng Olago, Christian Thine Omuto.

　　Elsevier, Volume 16: 193-198. https://doi.org/10.1016/B978-0-444-59559-1.00015-3.

Koch, M. (2015). Climate Change, Capitalism and Degrowth Trajectories to a Global Steady-State Economy. *International Critical Thought*, *5*(4), 439–452. https://doi.org/10.1080/21598282.2015.1102078

Krauß, W., & Bremer, S. (2020). The role of place-based narratives of change in climate risk governance. *Climate Risk Management*, *28*(February), 100221. https://doi.org/10.1016/j.crm.2020.100221

Kumar, K. (1999). Utopianism, Open University Press, Milton Keynes

Kyvelou, S. S., & Ierapetritis, D. (2019). Discussing and analyzing "maritime cohesion" in MSP, to achieve sustainability in the marine realm. *Sustainability (Switzerland)*, *11*(12).

Larner, W., & Le Heron, R. (2002). The spaces and subjects of a globalising economy: A situated exploration of method. *Environment and Planning D: Society and Space*, *20*(6), 753–774. https://doi.org/10.1068/d284t

Larsson, O. L. (2019). The governmentality of network governance: Collaboration as a new facet of the liberal art of governing. *Constellations*, *27*(1), 111–126. https://doi.org/10.1111/1467-8675.12447

Lee, M., & Herborn, P. (2003). The Role of Place Management in Crime Prevention: Some Reflections on Governmentality and Government Strategies. *Current Issues in Criminal Justice*, *15*(1), 26–39. https://doi.org/10.1080/10345329.2003.12036275

Lefebvre, H. (1991) The production of space. Blackwell, Oxford

Lemke, T. (2019). Foucault's Analysis of Modern Governmentality: A Critique of Political Reason. Verso Books. London, NY.

Leshem, D. (2016). Retrospectives: What did the ancient Greeks mean by Oikonomia? *Journal of Economic Perspectives*, *30*(1), 225–231. https://doi.org/10.1257/jep.30.1.225

Levitas, Ruth. (1982). "Dystopian Times? The Impact of the Death of Progress on Utopian Thinking." Theory, Culture & Society 1 (1): 53-64.

Liebenguth, J. (2020). Conceptions of Security in Global Environmental Discourses: Exploring the Water-Energy-Food Security Nexus. *Critical Studies on Security*, *8*(3), 189–202. https://doi.org/10.1080/21624887.2020.1754713

Linnér, B. O., & Wibeck, V. (2020). Conceptualising variations in societal transformations towards sustainability. *Environmental Science and Policy*, *106*(July 2019), 221–227. https://doi.org/10.1016/j.envsci.2020.01.007

Lobo-Guerrero, L. (2007). Biopolitics of specialized risk: An analysis of kidnap and ransom insurance. *Security Dialogue*, *38*(3), 315–334. https://doi.org/10.1177/0967010607081513

Löwenheim, O. (2008). Examining the State: A Foucauldian perspective on international "governance indicators." *Third World Quarterly*, *29*(2), 255–274. https://doi.org/10.1080/01436590701806814

Luke, T.W. (1995). On environmentality: geo-power and eco-knowledge in the discourses of contemporary environmentalism. *Cultural Critique 31*: 57–81.

Luke, T.W. (1999). Environmentality as green governmentality. Pp. 121–51 in ERIC DARIER (ed.), Discourses of the Environment. Oxford: Blackwell.

Lupton, D. (2013). Risk (2nd ed.). Milton Park, UK: Routledge

Maguire, S., & Hardy, C. (2009). Discourse and deinstitutionalization: The decline of DDT. Academy of Management Journal, 52: 148-178.

Mahon R., Fanning, L. (2019). Regional ocean governance: Polycentric arrangements and their role in global ocean governance. Marine Policy, Volume 107. https://doi.org/10.1016/j.marpol.2019.103590.

Mallin, F., & Barbesgaard, M. (2020). Awash with contradiction: Capital, ocean space and the logics of the Blue Economy Paradigm. *Geoforum*, *113*(June 2018), 121–132. https://doi.org/10.1016/j.geoforum.2020.04.021

Malpas, J. (2012). Putting space in place: Philosophical topography and relational geography. *Environment and Planning D: Society and Space*, *30*(2), 226–242. https://doi.org/10.1068/d20810

Massey. D. (1991). 'A Global Sense of Place'. Marxism Today. June: 24–29

Massey, D. (1993). Power-geometry and a progressive sense of place. In Bird, J., Curtis, B., Putnam, T., Robertson, G. & Tickner, L. (eds.) Mapping the Futures: Local Cultures, Global Change, pp 59--69. London: Routledge.

Massey, D. (2005). For Space. Sage, London

Mckee, K. (2009). Post-Foucauldian governmentality: What does it offer critical social policy analysis? *Critical Social Policy*, *29*(3), 465–486. https://doi.org/10.1177/0261018309105180

Meadows, D.H, Meadows, D. L. , Randers J., Behrens W.W. (1972). The Limits to Growth. A report for the club of Rome's project on the predicament of mankind. Universe Books, New York,

Methmann, C., & Rothe, D. (2012). Politics for the day after tomorrow: The logic of apocalypse in global climate politics. *Security Dialogue*, *43*(4), 323–344. https://doi.org/10.1177/0967010612450746

Midlen, A. (2021). What is the Blue Economy? A spatialised governmentality perspective. *Maritime Studies* **20**, 423–448. https://doi.org/10.1007/s40152-021-00240-3

Midlen, A. (2023). Enacting the blue economy in the Western Indian Ocean: A 'collaborative blue economy governmentality.' Environment and Planning E: Nature and Space, 0(0). https://doi.org/10.1177/25148486231198010

Midlen, A. (in prep, a) From piracy to sustainable development in the Western Indian Ocean: securing a blue economy space.

Midlen, A. (in prep, b) Rethinking environmental governance: the *blue œconomy* dispositive.

Mitchell, T. (2014). Economentality: How the future entered government. *Critical Inquiry*, *40*(4), 479–507. https://doi.org/10.1086/676417

Mohabeer, R. and Sullivan de Estrada, K. (2019). Strengthening Maritime Security in the Western Indian Ocean. Ebene, Mauritius: IOC.

Müller-Mahn, D. asnd Everts, J (2013). Riskscapes: the spatial dimensions of risk. In *The Spatial Dimension of Risk*. Routledge.

Muller, B. J. (2011). Risking it all at the biometric border: Mobility, limits, and the persistence of securitisation. *Geopolitics*, *16*(1), 91–106. https://doi.org/10.1080/14650045.2010.493775

Murdoch, J (2006). Post-structuralist Geography : A Guide to Relational Space, SAGE Publications.

Murdoch, J. (1998). The spaces of actor-network theory. *Geoforum*, *29*(4), 357–374. https://doi.org/10.1016/S0016-7185(98)00011-6

Mythen, G., & Walklate, S. (2006). Criminology and terrorism: Which thesis? Risk society or governmentality? *British Journal of Criminology*, *46*(3), 379–398. https://doi.org/10.1093/bjc/azi074

Neilson, A. L., & São Marcos, R. (2019). Reframing marine resource management with relational ontologies and hybrid entanglements: Fishing for empathy between Azorean fishers and scientists. *Marine Policy*, *105*(April), 30–37. https://doi.org/10.1016/j.marpol.2019.04.004

Neumann, I. B. and Sending, O. J. (2010). Governing the Global Polity: Practice, Mentality, Rationality. Ann Arbor, MI: University of Michigan Press.

Neumann, I. B., & Sending, O. J. (2007). "The international" as governmentality. *Millennium: Journal of International Studies*, *35*(3), 677–701. https://doi.org/10.1177/03058298070350030201

Nogué-Algueró, B. (2020). Growth in the docks: ports, metabolic flows and socio-environmental impacts. *Sustainability Science*, *15*(1), 11–30.

Ntona, M., & Schröder, M. (2020). Regulating oceanic imaginaries: the legal construction of space, identities, relations and epistemological hierarchies within marine spatial planning. *MARITIME STUDIES*. https://doi.org/10.1007/s40152-020-00163-5

Nyagah, T., Mwangi, J., and Attree, L. (2017). Inside Kenya's war on terror: the case of Lamu. SaferWorld, London

O'Connor, J. (1988). Capitalism Nature, Socialism A Theoretical Introduction. Capitalism Nature Socialism, 1(1), 11–38. https://doi.org/10.1080/10455758809358356

O'Malley, P. (1996), 'Risk and responsibility', in A. Barry, T. Osborne and N. Rose (eds), Foucault and Political Reason: Liberalism, Neo-Liberalism and Rationalities of Government, London: UCL Press, pp. 189-207.

O'Malley, P. (2004). "The Uncertain Promise of Risk," *The Australian and New Zealand Journal of Criminology* 37.3: 323-343, p. 336.

Obura, D. et al. (2017). Reviving the Western Indian Ocean Economy: Actions for a Sustainable Future. WWF International, Gland, Switzerland. 64 pp.

OECD (2009b) *Regions Matter: Economic Recovery, Innovation and Sustainable Growth*, Paris: OECD.

Olssen, M. (2019). Governmentality and Subjectivity: Practices of Self as Arts of Self-Government. In *Governmentality Studies in Education* (pp. 77–93). https://doi.org/10.1163/9789087909857_006

Ostrom, E. (1990). Governing the Commons, Cambridge Univ. *Cambridge Press*.

Otto, L. (2020). Introducing Maritime Security: The Sea as a Geostrategic Space. In: Otto, L. (ed). (2020). Global challenges in maritime security: an introduction. Springer Nature, Switzerland.

Partelow, S., Schlüter, A., Armitage, D., Bavinck, M., Carlisle, K., Gruby, R. L., Hornidge, A. K., Le Tissier, M., Pittman, J. B., Song, A. M., Sousa, L. P., Văidianu, N., & Van Assche, K. (2020). Environmental governance theories: A review and application to coastal systems. *Ecology and Society*, *25*(4), 1–21. https://doi.org/10.5751/ES-12067-250419

Paterson, M., Doran, P., and Barry, J., 2006. Green Theory. In: C. Hay, M. Lister, and D. Marsh, eds. The state: theories and issues. Basingstoke, UK: Palgrave Macmillan, 135–154.

Patil, P. G., Virdin, J., Diez, S. M., Roberts, J., & Singh, A. (2016). Toward a Blue Economy: A promise for Sustainable Growth in the Caribbean. *The World Bank Group*, 92. http://documents.worldbank.org/curated/en/965641473449861013/pdf/AUS16344-REVISED-v1-BlueEconomy-FullReport-Oct3.pdf

Patil, P.G., Virdin, J., Colgan, C.S., Hussain, M.G., Failler, P., and Vegh, T. (2018). Toward a Blue Economy: A Pathway for Bangladesh's Sustainable Growth. Washington, D.C., The World Bank Group.

Pauly, D. (2018). A vision for marine fisheries in a global blue economy. *Marine Policy*, *87* (November 2017), 371–374. https://doi.org/10.1016/j.marpol.2017.11.010

Pearce, D., Markandya, A., and Barbier, E., (1989). Blueprint for a green economy. London: Earthscan.

Pelenc, J., Ballet, J., & Dedeurwaerdere, T. (2015). Weak versus Strong Sustainability. Brief for Global Sustainable Development Report (GSDR) 2015.

Peters, B., Pierre, J., Sørensen, E., & Torfing, J. (2022). The rise of collaborative governance. How Collaborative Governance Can Make Political Systems More Democratic and Effective, 33–55. https://doi.org/10.4337/9781788117999.00007

Peters, K. (2020). The territories of governance: Unpacking the ontologies and geophilosophies of fixed to flexible ocean management, and beyond: The territories of governance. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *375*(1814). https://doi.org/10.1098/rstb.2019.0458rstb20190458

Phillips, N., Lawrence, T., & Hardy, C. 2004. Discourse and institutions. Academy of Management Review , 29: 1-18.

Piro, J. M. (2008). Foucault and the Architecture of Surveillance: Creating Regimes of Power in Schools, Shrines, and Society. *Educational Studies*, *44*(1), 30–46. https://doi.org/10.1080/00131940802225036

Pløger, J. (2008). Foucault's dispositif and the City. *Planning Theory*, *7*(1), 51–70. https://doi.org/10.1177/1473095207085665

Polanyi, K. (1944). *The Great Transformation*. Beacon Press, California

Potgieter, T. (2018). Oceans economy, blue economy, and security: notes on the South African potential and developments. *Journal of the Indian Ocean Region*, *14*(1), 49–70. https://doi.org/10.1080/19480881.2018.1410962

Puleo, T. J. (2012). Place. In *The Wiley-Blackwell Encyclopedia of Globalization*. Blackwell

Quassoli, F., Colombo, M., & Molteni, A. (2018). *Governing through security ? Institutional discourse, practices, and policies in the metropolitan city of Milan*. *August*, 27–29.

Raffnsøe, S., Gudmand-høyer, M., & Thaning, M. S. (2014). What is a dispositive? Foucault's historical mappings of the networks of social reality. In *Working Paper*.

Rose N. 1996. Governing 'advanced' liberal democracies. In Foucault and Political Rea- son, ed. A Barry, T Osborne, N Rose, pp. 37–64. London: UCL Press

Rose, N., O'Malley, P., & Valverde, M. (2006). Governmentality. *Annual Review of Law and Social Science*, *2*, 83–104. https://doi.org/10.1146/annurev.lawsocsci.2.081805.105900

Rudolph, T. B., Ruckelshaus, M., Swilling, M., Allison, E. H., Österblom, H., Gelcich, S., & Mbatha, P. (2020). A transition to sustainable ocean governance. *Nature Communications*, *11*(1), 1–14. https://doi.org/10.1038/s41467-020-17410-2

Russell, S., & Frame, B. (2013). Technologies for sustainability: A governmentality perspective. *International Journal of Sustainable Development*, *16*(1–2), 91–106. https://doi.org/10.1504/IJSD.2013.053792

Rutherford, S. (2007). Green governmentality: Insights and opportunities in the study of nature's rule. *Progress in Human Geography*, *31*(3), 291–307. https://doi.org/10.1177/0309132507077080

Saddington, L. (2023). Geopolitical imaginaries in climate and ocean governance : Seychelles and the Blue Economy. *Geoforum*, *139*. https://doi.org/10.1016/j.geoforum.2023.103682

Said, A., & MacMillan, D. (2020). 'Re-grabbing' marine resources: a blue degrowth agenda for the resurgence of small-scale fisheries in Malta. *Sustainability Science*, *15*(1), 91–102. https://doi.org/10.1007/s11625-019-00769-7

Sakhuja, V. (2015). Harnessing the Blue Economy. *Indian Foreign Affairs Journal*, *10*(1), 2015.

Satizábal, P., Dressler, W. H., Fabinyi, M., & Pido, M. D. (2020). Blue economy discourses and practices: reconfiguring ocean spaces in the Philippines. *Maritime Studies*, *19*(2), 207–221. https://doi.org/10.1007/s40152-020-00168-0

Schneider, F., Kallis, G., & Martinez-Alier, J. (2010). Crisis or opportunity? Economic degrowth for social equity and ecological sustainability. Introduction to this special issue. *Journal of Cleaner Production*, *18*. https://doi.org/10.1016/j.jclepro.2010.01.014

Schreiber, M., Chuenpagdee, R. and Jentoft, S. (2022). Blue Justice and the co-production of hermeneutical resources for small-scale fisheries. Marine Policy, Volume 137. https://doi.org/10.1016/j.marpol.2022.104959.

Schutter, M. S., & Hicks, C. C. (2019). Networking the Blue Economy in Seychelles: pioneers, resistance, and the power of influence. *Journal of Political Ecology*, *26*(1), 425–447.

Shaw, C. (2013). Choosing a dangerous limit for climate change: Public representations of the decision making process. *Global Environmental Change*, *23*(2), 563–571. https://doi.org/10.1016/j.gloenvcha.2012.12.012

Sheppard, E. (2011). Geography, nature, and the question of development. *Dialogues in Human Geography*, *1*(1), 46–75. https://doi.org/10.1177/2043820610386334

Silver, J. J., Gray, N. J., Campbell, L. M., Fairbanks, L. W., & Gruby, R. L. (2015). Blue Economy and Competing Discourses in International Oceans Governance. *Journal of Environment and Development*, *24*(2), 135–160. https://doi.org/10.1177/1070496515580797

Slaughter, A.-M. (2005). Security, Solidarity, and Sovereignty: The Grand Themes of UN Reform. *American Journal of International Law*, *99*(3), 619–631. https://doi.org/10.2307/1602294

Smith, N. (2007). Nature as accumulation strategy. Socialist Register, 43, 1–21. https://doi.org/10.1523/JNEUROSCI.3283-07.2007

Sorenson, K. (2008). State Failure on the High Seas: Reviewing the Somali Piracy. FOI, Swedish Defence Research Agency

Spalding, A. K., & de Ycaza, R. (2020). Navigating Shifting Regimes of Ocean Governance From UNCLOS to Sustainable Development Goal 14. *Environment and Society: Advances in Research*, *11*(1), 5–26. https://doi.org/10.3167/ares.2020.110102

Springer, S. (2012). Neoliberalism as discourse: Between Foucauldian political economy and Marxian poststructuralism. Critical Discourse Studies, 9(2), 133–147. https://doi.org/10.1080/17405904.2012.656375

Steinberg, P., & Peters, K. (2015). Wet ontologies, fluid spaces: Giving depth to volume through oceanic thinking. *Environment and Planning D: Society and Space*, *33*(2), 247–264. https://doi.org/10.1068/d14148p

Sumaila, U. R., Walsh, M., Hoareau, K., Cox, A., Teh, L., Abdallah, P., Akpalu, W., Anna, Z., Benzaken, D., Crona, B., Fitzgerald, T., Heaps, L., Issifu, I., Karousakis, K., Lange, G. M., Leland, A., Miller, D., Sack, K., & Shahnaz, D. (2021). Financing a sustainable ocean economy. *Nature Communications*, *Iix*. https://doi.org/10.1038/s41467-021-23168-y

Tardy (ed.) (2014). Fighting piracy off the coast of Somalia: Lessons learned from the Contact Group. EU Institute for Security Studies, Report 20.
https://www.iss.europa.eu/sites/default/files/EUISSFiles/Report_20_Piracy_off_the_coast_of_Somalia.pdf

Thrift, N. (2006). Space. *Theory, Culture and Society 23*, 139-146

Torfing, J. (2009). Power and Discourse: Towards and Anti-Foundationalist Concept of Power. In *Sage Handbook of Power*.

UN (2011). The Transition to a Green Economy: Benefits, Challenges and Risks from a Sustainable Development Perspective Report by a Panel of Experts to Second Preparatory Committee Meeting for United Nations Conference on Sustainable Development.

UN (2015). Transforming our world: the 2030 Agenda for Sustainable Development. Resolution adopted by the General Assembly on 25 September 2015. A/RES/70/1. United Nations, Washington DC.

UN and World Bank (2007). Somali joint needs assessment : productive sectors and environment cluster report (Vol. 2) (English)

UN Economic Commission for Africa (UNECA) (2020). Blue Economy, Inclusive Industrialization and Economic Development in Southern Africa.

UNDESA (2014). Blue Economy Concept Paper. United Nations, New York.

UNEP (2005). The State of the Environment in Somalia A Desk Study. United Nations Environment Programme, Nairobi

UNEP (2011). Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication. Nairobi: United Nations Environment Programme.

UNEP, FAO, IMO, UNDP, IUCN, WorldFish Center, GRIDArendal (2012) Green Economy in a Blue World. UNEP, Nairobi

United Nations (2004). A More Secure World: Our Shared Responsibility. Report of the Secretary-General's High-level Panel on Threats, Challenges and Change, New York: United Nations.

United Nations (2005a). 'In Larger Freedom: Towards Development, Security and Human Rights for All'. Report of the Secretary-General, UN Document A/59/2005. Retrieved 22 June 2007 from http://www.un.org/largerfreedom/

UNODC (2010). The Globalization Of Crime: a transnational organized crime threat assessment. United Nations Office On Drugs And Crime. Vienna

Vandergeest, P., & Unno, A. (2012). A new extraterritoriality? Aquaculture certification, sovereignty, and empire. *Political Geography*, *31*(6), 358–367. https://doi.org/10.1016/j.polgeo.2012.05.005

Voyer, M., & van Leeuwen, J. (2019). `Social license to operate' in the Blue Economy. RESOURCES POLICY, 62(February), 102–113. https://doi.org/10.1016/j.resourpol.2019.02.020

Voyer, M., Benzaken, D., & Rambourg, C. (2022). Institutionalizing the Blue Economy: an examination of variations and consistencies among Commonwealth countries. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *377*(1854). https://doi.org/10.1098/rstb.2021.0125

Voyer, M., Quirk, G., McIlgorm, A., & Azmi, K. (2018). Shades of blue: what do competing interpretations of the Blue Economy mean for oceans governance? *Journal of Environmental Policy and Planning*, *20*(5), 595–616. https://doi.org/10.1080/1523908X.2018.1473153

Voyer, M., Schofield, C., Azmi, K., Warner, R., McIlgorm, A., & Quirk, G. (2018b). Maritime security and the Blue Economy: intersections and interdependencies in the Indian Ocean. Journal of the Indian Ocean Region, 14(1), 28–48. https://doi.org/10.1080/19480881.2018.1418155

Walker, T (2020). The Successes and Struggles of Multilateralism: African Maritime Security and Strategy. In: Otto, L. (ed). (2020). Global challenges in maritime security: an introduction. Springer Nature, Switzerland.

Wambua, P. M. (2009). Enhancing regional maritime cooperation in Africa: The planned end state. *African Security Review*, *18*(3), 45–59. https://doi.org/10.1080/10246029.2009.9627541

Wanner, T. (2015). The New 'Passive Revolution' of the Green Economy and Growth Discourse: Maintaining the 'Sustainable Development' of Neoliberal Capitalism. *New Political Economy*, *20*(1), 21–41. https://doi.org/10.1080/13563467.2013.866081

Watkins, J. (2015). Spatial Imaginaries Research in Geography: Synergies, Tensions, and New Directions. *Geography Compass*, *9*(9), 508–522. https://doi.org/10.1111/gec3.12228

Watts, M. J. (2013). A political ecology of environmental security. *Environmental Security: Approaches and Issues*, *January*, 82–101. https://doi.org/10.4324/9780203108635

Weiss, J. et al. (2017). UN environmental policy: Non-State Actors, trends, and the regulatory role of the state. *Journal of Political Ecology*. https://www.slideshare.net/GaganSharma3/ikea-operational-startegies

Weiss, M., & Cattaneo, C. (2017). Degrowth – Taking Stock and Reviewing an Emerging Academic Paradigm. *Ecological Economics*, *137*, 220–230. https://doi.org/10.1016/j.ecolecon.2017.01.014

Whaley, L. (2018). Geographies of the Self: Space, Place, and Scale Revisited. *Human Arenas*, *1*(1), 21–36. https://doi.org/10.1007/s42087-018-0006-x

Wichum, R. (2013). Security as dispositif: Michel Foucault in the field of security. *Foucault Studies*, *1*(15), 164–171. https://doi.org/10.22439/fs.v0i15.3996

Winder, G. M., & Le Heron, R. (2017). Assembling a Blue Economy moment? Geographic engagement with globalizing biological-economic relations in multi-use marine environments. *Dialogues in Human Geography*, *7*(1), 3–26. https://doi.org/10.1177/2043820617691643

Winkel, G. (2012). Foucault in the forests-A review of the use of "Foucauldian" concepts in forest policy analysis. *Forest Policy and Economics*, *16*, 81–92. https://doi.org/10.1016/j.forpol.2010.11.009

World Bank (2013). The Pirates of Somalia: Ending the Threat, Rebuilding a Nation. Washington

World Bank (2017). The Potential of the Blue Economy. In *The Potential of the Blue Economy*. https://doi.org/10.1596/26843

WWF (2021). Navigating ocean risk: value at risk in the global blue economy. Report. WWF, Gland, Switzerland.

WWF (2016). Sustainable Blue Economy Principles. Leaflet. WWF Baltic Ecoregion Programme.

Zelli, F., Nielsen, T. D., & Dubber, W. (2019). Seeing the forest for the trees: Identifying discursive convergence and dominance in complex redd+ governance. *Ecology and Society*, *24*(1). https://doi.org/10.5751/ES-10632-240110