"Surrender to Dagaa"

An ethnographic study of fishing in Zanzibar



Björn Trägårdh Department of Social Anthropology Master's degree 30 credits (120 credits) Spring term 2023 Supervisor: Paula Uimonen



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Abstract

This thesis explores Zanzibari fishing practices and the fishermen's relation to the ocean, within the context of the global political economy. The study focuses on catching small pelagic fish, locally known as dagaa, which has become vital for food security in Zanzibar. By combining anthropological theories of phenomenology and political economy, the thesis identifies capitalism and the need for cash as constituting a metabolic rift that alienates fishermen from the ocean, where the ocean is seen as more of an industrial landscape to earn a wage rather than a landscape to dwell with. The thesis further expands the analysis to discuss overexploitation in relation to the global economy with a worldview of unlimited goods.

Keywords: Phenomenology, political economy, fishing, overexploitation, neoliberalism, blue economy, scientific capitalism, unlimited goods

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1. Introduction

Abdi tosses me a large garbage bag: "Lala Salama" (sleep tight), he says and laughs as he lies down on the plywood planks on the deck with a tarpaulin as a blanket. "The bigger boat will lay a net over there and come to us about 03.00 tonight," Captain explains to me before he follows Abdi, takes a plastic bag around him, and lies down. The time is now 20.15. I cannot understand what is happening. Is this some test? Are they going to sleep? I thought we would be out looking for dagaa and actively fishing for it. This just seemed dull, simple, and on top of it all, unsafe.

We have tossed anchor in complete darkness, out on the Indian Ocean. Four headlights are directed straight down to the surface, driven by a diesel generator that gives off just as much fume as noise. Wet plastic bags cover all the electronics and extension cords, the waves rock the boat heavily, and I have lost service on my phone. Deep down in the turquoise water, fish shoals are circling. Two meters from the vessel, the water is pitch black. All I can hear is the loud, sharp noise from the diesel generator and water splashing into the boat. Part of me wants to panic, but another part is relieved: if I fall asleep, this will be over sooner.

Fishing in Zanzibar goes back for millennia, with traditional and artisanal techniques using small vessels limited to the coast near water. But the postcolonial and postsocialist state is struggling with overfishing, poverty, and food scarcity. As a semi-autonomous state in the United Republic of Tanzania, Zanzibar invests in the Blue Economy to create and expand a sustainable marine industry, reduce poverty, and create economic growth. Aiming to become the leading hub for the Blue Economy in the Western Indian Ocean region. In this context, the industry for small pelagic fish, locally known as dagaa, has a vital role as an export product and for food security for the local poor population.

The introductory vignette is from my first-time fishing for dagaa. The industry has expanded since the 2000s (Fujimoto 2018). The activity is primarily taking place in the Urban/West region of Zanzibar, during nighttime, using lamps to attract the shoals and a ring net to haul them. It is what one might call a "fishing down the food chain" industry. As the top predators

that eat dagaa got overexploited in the region, the fishery transitioned to fish for dagaa. With the government's Blue Economy initiative, there are plans to expand the market further. Meanwhile, reports show a tendency of overfishing on dagaa elsewhere in Tanzania (Kamukuru et al. 2020).

"Surrender to dagaa. It's not worth it", my friend Bwana shouted to a fellow fisherman who walked by us with a small basket of fish caught with a handline. Bwana insinuated that you could no longer make a living out of fishing with handline in Stone Town. But no one seemed to really enjoy dagaa fishing, many fishermen considered it too simple and dull. Still, as other stocks had depleted in the region around Stone Town, people engaged with it to make a living. But it had become "too many fishermen" in the waters, I was told. Fishermen had begun to perceive the dagaa stocks as depleting as well. However, they continued – they needed the money.

As I was out fishing, the activity took me by surprise and, honestly, a slight disappointment. It was long shifts and included a lot of waiting. As little as I fancied fishing for it, did I plan to center my study around it. But as it was the primary fishing activity carried out in Stone Town, it came naturally as the focus of my study. In a way, I guess I also surrendered to dagaa because here I am, writing my master's thesis about this three-inch fish.

This thesis deals with how dagaa fishermen relate to their practices and to the ocean in the context of the global political economy. By doing this, I will argue how dagaa fishing has constituted a shift of task, where capitalist structures alienated the fishermen from the ocean. Further, I will account for how we can understand the impact of the global political economy in relation to this overexploitation of dagaa.

1.1 Purpose and research questions

The purpose of this study is to gain an understanding of the relationship between dagaa fishermen's interaction with the ocean and further how we can understand the global political economy as a contributing factor to this relation and how overexploitation is facilitated. This will be done by combining phenomenology with political economy, more specifically, taking Ingold's (2000) *dwelling perspective*, together with the Marxist concept of the *metabolic rift*

(Clausen & Clark 2005) and *scientific capitalism* developed by Ferguson (2006), along with Trawick and Hornborg's (2015) notion of the worldviews of *unlimited* and *limited goods*.

At the core of this discussion, the aim is to argue how dagaa fishing reflects the global paradox of economic growth and sustainability. Previous scholars have highlighted this paradox in other contexts (see, e.g., Hornborg 2009; Eriksen 2016; Hickel 2020), but nevertheless, it needs to be repeated. The IPCC (2022) report shows that the '20s is a crucial decade to turn the trend from global warming. Investments in green and blue transitions are booming across the globe. Projects that claim to conquer poverty and crisis by promoting sustainability and economic growth in the Global North as well as the Global South. Yet, these projects tend to assume that we could continue to extract resources, consume more than we can handle, and live in abundance (at least in some parts of the world).

The focus on fishermen's perspective implies a demarcation per se due to the limitations of this study. The perspectives of the boat owners and the buyers will not be covered, and since fishing as a practice is predominantly a male profession, the perspective of the women working in this industry will not be dealt with. Moreover, my fieldwork has focused on the local market. This demarcation has not been done because I considered the perspectives unimportant but because I needed to narrow down the study.

The overarching theme in this text can be read as *how do fishermen relate to dagaa?* Answering this opens multiple questions that will be treated throughout the essay. The word "relate" can be connected to both the practice of catching dagaa and the economic incentives of engaging in the activity and, in addition, dagaa fishing in relation to the political economy. These aspects open a discussion of how fishermen relate to the ocean. This can have as much an emotional attachment as a practical and epistemological aspect, i.e., how they perceive the ocean and how they act in relation to this perception. I have structured the thesis after these factors, dagaa fishing as practice, dagaa fishing as an income, and dagaa fishing as connected to the global political economy. Thus, my research questions are:

- How can we understand dagaa fishing as a shift of task in Zanzibari fishing?
- How does capitalism influence the dagaa fishermen's relation to the ocean?
- What role does the global political economy have in the overexploitation of dagaa in Zanzibar?

1.2 Outline of thesis

This thesis consists of eight chapters with subsections. In this first chapter, I present my field, purpose for the study, and research questions. This is followed by a brief background to Zanzibari fishing. Further, I will present the methods that were used to collect material, as well as a reflection on my position in the field. Lastly, I account for theories and concepts that I will use to analyze my ethnography. My ethnographic chapters then follow.

In Chapter 5, *Practicing the art of fishing*, I will argue for how dagaa fishing implied a *shift of task* in Zanzibari fishing, considered simple and different from other fishing techniques. I will account for how I perceived the aquatic landscape with my interlocutors and how they spoke of other types of fishing, compared to dagaa fishing. This will be substantiated with an ethnography from my own experience of fishing dagaa.

Chapter 6, *Capitalism in Zanzibari fishing*, I will discuss the divisions of labor in the dagaa industry and how this founded different classes. I will argue that these classes and divisions of labor, along with the need for cash, alienated the fishermen from the ocean and from caring for future yields. In this context, I will argue how capitalism influenced the fishermen's relation to the ocean in the dagaa industry. Engaging with the ocean for a wage, the aquatic landscape could rather be understood as an *industrial* aquatic landscape. To this, I will add a section of moral in this capitalist economy, where an old moral conflicts with a new.

In chapter 7, *Governance in the Blue Economy*, I will abstract the analysis and connect the relation between the fishermen and the global political economy. Here I will present how dagaa as food security was founded upon an ocean grabbing of other fish, further how tourists influenced fishermen to strive for wealth. I will eventually analyze how the World Bank promotes Blue Economy and how it was put into practice in dagaa fishing. The chapter will end with a discussion of how the dagaa industry reflects the tension between growth and sustainability.

Lastly, in the conclusion, I will summarize and present suggestions for future research.

2. Background to fishing in Zanzibar

2.1 A brief history of Zanzibar

Zanzibar is a semi-autonomous state within the United Republic of Tanzania. The state is an archipelago with two major islands, Unguja and Pemba. Zanzibar has a long history of trade with the Middle East, India, East Africa, and Europe. The cultural influence of these trading bonds is visible in architecture and art. It is predominantly a Muslim state. During the 17th century, the Sultanate of Oman took control over Zanzibar after 200 years of Portuguese rule (Mkumbukwa 2017). During Omani rule, Zanzibar became a trading hub for ivory, spices, and slave trade to the Arabic countries. The Arabs living in Zanzibar came to form an elite. Eventually, the British Empire gradually turned Zanzibar into a British protectorate, still ruled by an Omani sultan. When Zanzibar gained independence in 1963, the Arabic sultanate remained in power. This sultanate was overthrown in the Zanzibar Revolution of 1964 (ibid.).

The new Revolutionary Government of Zanzibar (RGoZ) formed the union of Tanzania with Tanganyika and has remained in power since then. The union was a one-party state governed by a socialist ideology (*Ujamaa*) ruled by the Chama Cha Mapinduzi (CCM) party. Due to an economic crisis in the mid-1980s, the government searched for aid from the International Monetary Fund (IMF). Tanzania entered a structural adjustment program where the economy was liberalized (IMF 2009). The economic transition has been described as the entrance of neoliberalism in Tanzania and Zanzibar (Keshodkar 2022).

2.2 Fishing situation in Zanzibar

Zanzibar has a tradition of fishing and marine activities going back millennia with the wooden vessels, *dhows*¹, that have crossed the Western Indian Ocean. Fishing is mainly small-scale and artisanal, using small traditional vessels. The activity is limited chiefly to inshore and coast near waters. Using techniques such as handline, ring net, purse seine net, and fish traps.

¹ Dhow is a generic name for traditional vessels used along the coasts of the Western Indian Ocean.

The governance of accessing Zanzibari fishing grounds has varied. Before the colonization, the access to fishing grounds was restricted by local taboos, but these restrictions ended during colonialism as the British started to export resources to Europe (Mkumbukwa 2017). During the following socialist era, the limitation to inshore water caused overexploitation. This has, however, continued since the liberalization of the market with the IMF program. Zanzibari government has implemented community-based conservations of some marine areas, this has led to conflicts where fishermen perceive that they have lost access to their fishing grounds (ibid.). Overall, the fishery in Zanzibar and Tanzania has been described as open access (Rehren et al. 2022).

Zanzibar is struggling with overfishing and food security. Contributing factors for this have been identified as an increase in population and tourism, which has increased the demand for fish on the market. Additionally, few alternatives to livelihood have led to a surplus of fishermen, limited to the coast near water competing over fish stocks (Makame & Salum 2021). These overexploited waters have been destroyed not only by the number of activities but also through direct destructive fishing activities such as dynamite fishing in Zanzibar as well as Tanzania in general (Mwaipopo 2017; Raycraft 2019; Walley 2004).

To cope with the overfishing situation, the Zanzibari government is currently investing in a *Blue Economy* (BE) to work for the full exploitation of marine resources *and* a healthy ocean. This investment is partly financed by multilateral organizations such as the World Bank, with investments in fishery, aquaculture, and ecotourism. For fishery, the investment strives to expand the market internationally and enable deep-sea fishing to reduce the pressure on the coast near water (RGoZ 2020).

2.3 Dagaa fish

Dagaa is a hypernym for small pelagic fish in Tanzania and along the Swahili coast. Pelagic fish is a category of fishes living in the open sea, in contrast to demersal and coral fish that live close to the bottom or corals, respectively (Lal & Fortune 2000:8). Whilst the pelagic fish category includes big predators such as tuna and kingfish, *small* pelagic fish refers to forage fish like anchovy, sardine and herring that lives from plankton and plants floating by the surface. Small pelagic fish is considered vital in the ecosystem, as it serves as food for predator

fish. Moreover, it is the most caught fish species in the world and is known to have a critical role in nutrition and protein in many communities, like in Zanzibar.

The popular species in Zanzibar and Tanzania are *tonge kwa tonge* which is the local name of both Commerson's anchovy and Indian anchovy. Another popular species is *dagaa la kukosha* [silver-stripe rounded herring]². The dagaa term also includes other species like spotted sardinella and white sardinella (Fujimoto 2018). Even if sardines belong to the scientific classification of small pelagic fish, the fishermen I met did not include sardines as dagaa. They spoke of *saradini* when referring to slightly bigger sardines, whereas smaller ones like sardinella were categorized as dagaa. Tonge was the most coveted of the dagaa as they could either be sold at a higher price at the market or to the dagaa processors who would export it. The kukosha was either sold at the local market or used for chicken feed. The species are processed by boiling it in salt and then sun-dried. I was told that tonge was more attractive since it could be boiled, whilst kukosha and other dagaa species might fall apart during the boiling process.



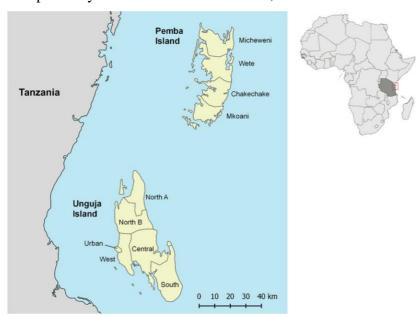
Kukosha to the left, Tonge, to the right (photos by the author).

² Tonge kwa tonge and dagaa la kukosha will henceforth be referred to as tonge and kukosha respectively when clarification is needed.

3. Methodology

3.1 Methods and field sites

The thesis is based on nine weeks of fieldwork in Stone Town, Zanzibar, in the Urban/West region. My two main methods have been participant observation, semi-structured interviews, but also informal conversations. I have also carried out secondary research on the history of Zanzibar and policies relating to the fishery. All in all, I conducted 19 semi-structured interviews with 32 people³. Fishing is a predominantly male profession, thus, only six of my interlocutors were women. 16 interviews were recorded, and I used an interpreter for 13 of these. Before each interview, I discussed the themes I was interested in with my interpreter. These themes were at large centered around – the practice of fishing, its relation to fishing as livelihood, and the perception of the status of the exploited species. I interviewed dagaa fishermen across the island. However, my participant observation and informal conversations was primarily in and around Stone Town, in the Urban/West.



Map over regions in Zanzibar (source: Ashton et al. 2019).

Even though I stayed in Stone Town, my field could be understood as multi-sited. As I followed the fishermen, like Marcus' (1995) following the people, I constructed a field of the multiple sites and relations that were connected in their everyday lives. Investigating the relationships,

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³ All of my interlocutors' names are fictious.

knowledge, and perceptions of sites and other agents at these sites. These sites stretched from the homes of my interlocutors, the fishing community, the fish market where the catch was sold in the morning, and not the least, the Indian Ocean where the fish was caught.

My major field site was in the northern part of Stone Town, in Malindi. Malindi is a small peninsula where the official port is located. Next to the port there is a boatyard for cargo ship and next to that a mooring site for fishing boats. It was at this mooring site that I spent most of my days. The first time I got there, I was caught by the peculiar mash up of scents, or odors. Fume from gasoline, brine, and a pungent smell of seabed that got uncovered by the tide and heated up by the sun.



Low tide in Malindi Ras el Hema. The club house is seen to the right (photo by author).

The mooring site has a shop selling fishing equipment and a concrete house that I came to know as the "club house" where fishermen hang out. The Malindi fishermen called this area the *Ras el Hema*. I asked around for the meaning of the name, but they did not know, just that "ras" meant peninsula in Arabic. At the Ras el Hema, fishermen renovated boats, and served outboards. Whenever a fishing boat came in, someone would run down to help them load or unload the dhow. One man explained to me that many came here to find work for the day to earn a meal, "no one starves in Malindi, not even the stray cats", he said. I came to see Malindi as an area for the proletariat.

My second field site was the Kizingo morning market, south of Stone Town. Kizingo is a landing site and fish market for primarily dagaa and sardine. During early mornings, just about when the sun had risen Kizingo was crowded with local people buying or asking for fish. On the slippery landing site that was uncovered in low tide, buckets of dagaa were lined up for transports, and tables made of plywood were set up to sell squid and bigger fishes. Further up from the landing site there was a fish auction and food stands, where women were selling stews and bread.

Apart from these terrestrial sites, there is the Indian Ocean, which was another field site of mine. I have been out fishing primarily in the Zanzibar Channel, between the mainland and Unguja. More specifically, outside the Urban/West region, about 10 km from Unguja, at a depth estimated to be between 17 to 30 meters (Richmond 2011). This water amazed me, with its tidal waves coming and going twice a day with up to a kilometer in difference at some times. Previously I had no specific relation to the ocean, but the more time I spent there, the more I got keen to observe it. As it affected the wind, absorbed the heat and reflected the sky, the characteristics of the ocean mediated other phenomena in our surroundings.

3.2 Ethics and Positionality

I had neither been in Zanzibar nor Tanzania before my fieldwork. Even if some might claim that it is beneficial for fieldwork to be unfamiliar with all the new experiences you encounter, it is also devastating and scary. The first day *everything* seemed to be different. I called my girlfriend and my parents and cried. I could not understand how to make sense of this new place with new customs and people. Feel free to label me as a privileged white male who knew nothing about the "third world" because I guess I was. I thought I knew something, but I obviously did not. Eventually, *everything* was not different, even if much was. I did somewhat settle in. I believe that I now can say at least a little bit about Zanzibar; it is, after all, a crucial aspect of conducting fieldwork.

But another crucial aspect for me has been to have a decolonized approach to my fieldwork. Decolonized ethnography strives to make awareness of how ethnographers engage with the research participants, which voices are heard, and how theoretical developments and representations are presented in the work to avoid metanarratives constructed by the ethnographer (Kaur & Klinkert 2011). In my case, I have strived to work with my interlocutors

by having a constant dialogue about the research process. This was often with my key interlocutors, Bwana, and Abdullah, with whom I elaborated my thoughts and interpretations. There was a language barrier, sometimes this became an issue as I strived to learn more of this profession and its structures. It was difficult for me to follow in some spontaneous discussions. Other times I had to ask other interlocutors if I had understood it correctly, which sometimes could take me days. In this quest to gain an understanding, my key interlocutors assisted me, which I am forever grateful for. They helped me understand uncertainties whilst other things remained unclear with mere hints of what they implied. In this regard, one could apply the concept of "the certainty of uncertainty" (Sholock 2012). This uncertainty can at least prevent me from confidently stating false claims, which is important when conducting research in a formerly colonized country. While doing participant observation, I was most often alone with my interlocutors, even if I could have brought an interpreter, I found it more effective to establish relationships by going there on my own, even if it was at the expense of data. I could then organize interviews later with an interpreter present.

Conducting fieldwork raises an issue of reciprocity: giving back when something is received, such as information. In my case, there was a social and financial inequality between me and my interlocutors, which calls for attention to paying back suitably and, in the meantime, not affecting the data (Fontein 2013). I got in contact with most of my interlocutors via other researchers based in Zanzibar. These researchers already had a policy of compensation for interviews, about 4 USD per interview, sometimes more, depending on the length of the interviews. But I ensured the interviews were arranged without mentioning money beforehand, even if it was possibly implicit. Through this arrangement, information was rather compensated for than bought (e.g., Cajas & Yolinliztly 2017).

With my key interlocutors, there was a closer social bond. I did not only get access to the field through them but was also invited to dinner and offered fruits, drinks and cakes. I reciprocated by buying bottles of konyagi⁴ to share and invited them to dinner. Twice I sponsored them with money for medicine. Moreover, I made sure to always have a package of cigarettes to share with them.

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⁴ Konyagi is a Tanzanian strong liquor.

3.3 Sensory ethnography

I have turned to sensory ethnography to understand fishermen's relation to the profession and their practices. This is a methodology that transcends the dualism of mind/body for a bodily experience to gain insights into the emplacement of the studied subject; the connection between mind-body-environment (Howes 2005 cited in Pink 2015:28). Through paying attention to all senses, smells, tastes, sounds, touches and visuals, the ethnographer's own experiences and emplacement could give an understanding of the interlocutor's emplacement (Pink 2015:46-7). In my case, the pungent smell from the fumes of the diesel generators getting mixed with the odor of small fish, the weight of the net after sleeping for less than an hour, or the sound of the waves splashing against the boat out in the pitch-black Indian Ocean have been helpful in approaching fishermen's relationship to the ocean and to dagaa. This way of attention to the bodily experience could be understood as becoming an ultra-sensitive antenna in the field to be aware of what it means to "live among" (Bergé n.d cited in Stoller 1997:33). But to get this awareness, collaboration has been needed (Pink 2015:46), I often spoke to fishermen in Malindi of my experiences and interpretations.

Further, to gain an understanding of fishermen' situation, I sometimes went on walks with my interlocutors. As Lee & Ingold (2006) argue, conversation topics during walking may shift temporality with past, present and future. Often during these walks, I was told stories of how Zanzibar had changed over the last decades or how they imagined the future of fishing, revealing the perception of, and the meanings attached to, places (ibid.:77). As Zanzibar was crowded by both tourists as well as people working with tourism, it was difficult to me to imagine the emplacement of the local population – I was always treated as a tourist on the streets of Stone Town. These walks were, therefore, helpful in getting insights into my interlocutors' everyday life in town and how they perceived it.

Studying practices is a study of the past, present and the imagined future (Pink 2015:46). The practice of imagination for what outcome will be, based on past experiences. Approaching practices from this perspective has facilitated me to analyze and get insights to the motivations behind the practices carried out at sea, connecting them to the daily life besides fishing.

4. Approaching Anthropology of Fishing

4.1 Previous research

Maritime anthropology has given insights into how the sea is a place lived in and created by people, with topics such as local knowledge, shared and private properties, gender structures and the risks of the practice (McCormack & Forde 2020:2). The dichotomy between land and ocean has been claimed to be inaccurate, posing that the ocean is immune to land-based activities and vice versa (Roszko 2021:313). The Western idea of the ocean being separate from human culture has been proven not to be universal (Helmreich 2011:136). For instance, the ocean can be seen as connecting the terrestrial parts rather than isolating them (Hao'ufa 2008 cited in Helmreich 2011:137).

One way of investigating the connection between humans/ocean/land is through phenomenology. Pálsson (1994) accounts for the enskilment metaphor of "getting one's sea legs" among Icelandic fishermen, as a reference to how fishing skills are obtained through actively engaging with the environment rather than a fixed set of knowledge. With a similar approach, Nightingale (2012) states that Scottish fishermen work *with* the sea, emotionally attached to it, in contrast to the large-scale trawlers. The fishermen claim their profession to be *a way of life*, in contrast to trawlers that merely engage in "business," for money, overexploiting the ocean.

The issues of overexploitation, sustainability and open access has been debated since Hardin (1968) coined the term the "tragedy of the commons", concluding that common access to resources would lead to overexploitation due to individuals' tendency to act according to their own self-interest. He advocated regulations and privatization to counteract such tendencies. Scholars opposing Hardin's notion have pointed out how small-scale fisheries often regulate their exploitation by informal governing, such as local taboos (e.g., Roszko 2021; Shalli 2017).

One of the major conventions in ocean governance is the United Nations Convention of Exclusive Economic Zones (EEZ), which gives states sovereignty rights to resources below the surface of 200 nautical miles from shore. As they have scrutinized the modern ocean policies, Campling and Havice (2014) concludes that EEZ assigns the ocean as property of the state

(while placing responsibility for overfishing on individual fishermen). Still, whenever a state fails to govern marine activities, it is described as "open access", leading to overexploitation where fishermen compete over yields. When this happens, blame is leveraged at individual fishermen while Campling and Havice (ibid.) argue that since the ocean and its resources are ascribed as property to the state in the EEZ, the state should take the blame. The rhetoric of blaming fishermen paves the way for privatization and conservation that marginalize fishermen's access to fishing grounds.

As people's interest in access to sea comes in conflict with states or investors initiative, this could be understood as a form of ocean grabbing (Barbesgaard 2018). Ocean grabbing is defined by Bennett et al. (2015) as "dispossession or appropriation of use, control or access to ocean space or resources from prior resource users, rights holders or inhabitants" (ibid.:62). This dispossession can be understood as carried out by either private actors or public institutions and states. Lately reports of ocean grabbing have been identified on in Blue Economy and Blue Growth initiatives, with its tendency to favor private actors rather than local communities (see Barbesgaard 2018). Labelling itself as a win-win-win project that is said to favor the environment, business, and small-scale fishery (SSF), Barbesgaard (2018) concludes that Blue Economy and Blue Growth projects are situated in a neoliberalization of nature debates with the argument of "saving nature by selling it," although framed as anti-political and thereby preclude opposing more radical voices from fishers. These projects have marginalized SSF due to policy frameworks developed for industrialized fishing (Roszko 2021:322),

In Tanzania, scholars have been engaged in studying how marine protected areas has come to marginalize local communities (Benjaminsen & Bryceson 2012), and moreover how these have led to illegal fishing activities in protected areas (see Kamat 2019; Raycraft 2018; Slade & Kalangahe 2015). Kamat (2019) states that the need for quick money drives young men to carry out dynamite fishing to be able to buy commodities and start a career in other businesses. Similarly, Raycraft (2018) notes that destructive fishing technologies (poison and dynamite) occurs due to poor economic situations where people are caught up in neoliberal values of safeguarding one's own security in a precarious livelihood. In a later article, Raycraft (2019) elaborates this conclusion by pointing out how the transition to neoliberalism in the 1980s created an "open access" fishing business which changed mentality to getting your yield before someone else takes it. Violating old customs with destructive fishing to secure one's situation.

Old customs and taboos can be read as sorts of local knowledge, which is characterized as passed down through generations (McComack & Forde 2020). Within fishing local knowledge has been noted to be characterized by a reciprocal and respectful relation to the fish species (see e.g., Diver et al. 2019). But globalization and neoliberalism have been reported to erode the ecological aspect of LK (see eg. Aswani et al. 2018; Gomez-Baggethun et al.; Lemahieu et al. 2018; Shalli 2017). Aswani et al. (2018) reviews the literature on changes in local knowledge. They state that like the global loss of biodiversity, the world is also suffering a loss of cultural diversity with the change of local knowledge pertaining to ecology. The factors causing this are identified as generational gaps, marketization, modernization, globalization, and Western education (ibid.:5).

4.2 Theoretical Framework and Concepts

This thesis will approach dagaa fishing from three perspectives. As a practice and interaction with the surroundings, for this I will turn to Ingold's (2000) notion of *dwelling*, including how he writes of *task*, *skill*, and perception of *landscapes* and *affordance*. The second approach is how capitalism has come to affect these interactions and practices. For this I will use the Marxist concept of *metabolic rift* (Foster 1999; Clausen & Clark 2005) and a class analysis from Howard (2017). Lastly, I will turn toward how the global political economy contributes to the overexploitation of dagaa. For this I will use two contrasting worldviews: of *unlimited and limited goods* (Trawick & Hornborg 2015), *scientific capitalism* (Ferguson 2006) and *ocean grabbing* (Bennett et al. 2015).

By turning toward the phenomenological approach of Ingold's (2000) *dwelling perspective*, it is possible to analyze the interaction between fishermen and the ocean as an engagement *with* the surroundings rather than *in* it. Opposing the constructivist perspective for its separation of mind and the world, the dwelling perspective challenges the dualism of nature/culture and mind/body. It approaches human life as "the immersion of the organism-person in an environment or lifeworld as an inescapable condition of existence" (ibid.:153). I find this perspective suitable as fishing is, to a large extent, an interaction with the ocean, navigating with the waves and the wind to find fish.

In this perspective, human activities on the ground are activities that arise from engagement with the surroundings rather than a mind that sets up consciousness for humans before they act

(Ingold 2000:153). This engagement Ingold calls *tasks*, which are simply ways to interact and engage with the world. It is through these tasks that *skill* is developed, as knowledge, training, and experiences of a particular performance with the surrounding (ibid.:37). These notions will be helpful in my analysis of fishing practices by seeing fishing as a task with an acquired skill from of engagement with the environment, which implies interaction with the ocean, wind, equipment, and fish.

For Ingold (2000:192) *places* are delimited blocks of the earth's surface attached with meaning. These places are connected to each other through *landscapes*. In this sense, landscapes are neither land nor nature. A landscape for Ingold is rather how the world is known by those who dwell in it (ibid.:193). It inhabits places to move between for the agent who dwells there. I will use these notions to analyze the fishermen's perception of the ocean as an *aquatic landscape* that inhabits places in the form of fishing grounds.

A good fishing ground does not necessarily give yield, you must interpret ways to work with it, to use the right bait or be out there at the right time of the day to catch any. This ways of working with the fishing ground can be understood as what it affords to give. The concept of *affordance* was developed by Gibson (1979) and later picked up by Ingold (2000). The meaning of the word affordance is ambiguous in that it is both subjective and objective, yet neither of them – It is what an object offers because of what it is (Gibson 1979:139). How an object is, and potentially could be, perceived and interacted with by the observer. Howard (2017) ascribes affordance to fishing grounds, analyzing how fishers develop ways to work with the grounds by noting tides and wind to get their yield. This will be essential to argue for how dagaa differs from other types of fishing.

The paradox of using this affordance concept is that I write this thesis because of what the ocean does not "afford"— overexploitation of fish. My second perspective on dagaa fishing will be how capitalism seemed to affect the relationship between fishermen and the ocean, becoming more of an industrial aquatic landscape, which fishermen dwelled with merely to make money.

To analyze this, I will use the Marxist notion of the metabolic rift. "Metabolism" is, in this case, the interaction between humans and the surrounding world (Marx 1976 cited in Clausen & Clark 2005:426). In this context, "labor" refers to the mere process of the activity carried out in this metabolic interaction (Howard 2018:68), decoupled from a monetary value (similar to

Ingold's (2000) usage of task, mentioned in the paragraphs above). But while humans, and all lives, are dependent on this interaction with the environment, capitalism creates an irreparable rift between humans and the environment, where extraction for profit comes at the expense of recycling and sustainable interaction with the environment (Foster 1999), alienating humans from the environment, creating a destructive relation for profit. It has been noted that this metabolic rift has increased even more through neoliberal capitalism, through increased socioeconomic inequality (Nayak & Luke 2022).

As the metabolic rift stems from Marx's theories of agricultural soil crisis, I will turn to Clausen and Clark (2005) and Howard (2017; 2018), who have extended this concept to include the human-ocean relationship under capitalism. Using the notion of a metabolic rift, it will be possible to understand how the relationship between fisherman and the ocean is affected by this profit-driven agenda and how alienation increases as capitalism continues to create new rifts (Clausen & Clark 2005:427). This rift could also be applied to the notion of affordance, as Howard (2018) has done, where she notes that the affordances of fishing grounds are developed with the alienated intention of making a profit.

But to account for how capitalism influence relation between fisherman and the ocean and as part of the alienation that is created, it is necessary with a class analysis. I approach the divisions of labor within dagaa fishing by turning towards Howard (2017), who defines class relations as *social* rather than economic, constituted by relations rather than different groups. It arises from an appropriation of a surplus created by another group (ibid.:148). From this perspective, a class could be understood as to what extent people have control over their bodies, their conditions of work, and the surplus that is generated from work (ibid.:150).

The third theoretical approach in this thesis is treated more explicitly in Chapter 7, however, subtle in both Chapter 5 and Chapter 6. It abstracts and places the fishermen in the context of the global political economy, The point of entry to this that capitalism is based on logic of unlimited accumulation in a limited world, therefore sustainability and economic growth could not be combined (see e.g., Hickel 2020; Magdoff & Foster 2011).

I will approach this issue from Trawick and Hornborg's (2015) notion on *unlimited* and *limited* goods, the world consists of a closed system of resources, following the logic of a zero-sum game, where we must adhere to a worldview of limited goods to manage our scarce resources

(ibid.:16). By this logic, growth and wealth is always carried out at the expense of the environment, as our economy is reliant on nonrenewable resources. Thereby, sustainability and economic growth could not be combined, as growth is a destructive process per se (ibid.:2).

However, as Trawick and Hornborg (2015) argues, the world has been dominated by a worldview of unlimited goods, with an illusory idea that we could *create* wealth. An idea stemming from the colonial era when Western countries outsourced their production to other continents and created the ethnocentric perception that it was possible to create endless wealth and transcend the limits of our planet's resources. But as they note, the worldview has lingered on in the Western episteme and spread across the globe with neoliberal economists and theorists who claim that the planets well-being could be achieved through a free market and the illusion that economic growth and sustainability could be united (ibid.:6). This hegemonic worldview of unlimited goods can be understood as maintained through the socio-economic inequalities of capitalism, where people must work harder to keep their heads above the water and try to stay at the same place relative to everyone else (ibid.:5).

Like many other African states, Zanzibar entered an era of neoliberalization via the IMF's structural adjustment programs. Neoliberalism could in this context be understood as a more aggressive sort of capitalism, advocating that humans well-being is best achieved through a free market and trade (Ortner 2018), preaching for the removal of states' engagement in the market (Ferguson 2006). Ferguson argues for how these adjustment programs established neoliberalism with a logic of promoting *scientific capitalism*. A demoralized economy where privatization and a free market is framed as "economically correct" and a necessity for economic growth (ibid.:78). But as Ferguson notes, an economically efficient and effective government is not necessarily a "good" government for the people (ibid.:85). These notions of scientific capitalism and "good governance" will help me in analyzing the effects and the logic of the political economy in Zanzibar and the investment in the Blue Economy.

5. Practicing the Art of Fishing

This chapter will discuss local fishing practices and how dagaa fishing can be understood as a *shift of task*. I will present how I interpreted perceptions, interactions, and relations to the ocean and towards fishing in Zanzibar. Starting with how dagaa was treated as something different in how fishermen related to it. This will be followed by further discussions of fishing practices and relations to the ocean. The chapter will end with a section on the practice of dagaa fishing.

5.1 Fishing Dagaa is Different

I quite quickly realized that dagaa fishing was considered something different from other fishing activities. On my first day in Zanzibar, I met a man who declared that there was no fishing outside of Stone Town. I needed to go south or north to find any. This claim caused me to doubt my choice of field site, but later in the evening, I saw lights across the ocean horizon, resembling city lights. I asked around and got to understand that it was dagaa fishing. People I talked to were not enthusiastic about it, "It's just small fish, with ring net."

"Fishing in Zanzibar is history. I've seen it change. Soon dagaa will be history too," Bwana told me. Bwana is a tall and skinny man in his mid 50's living in Malindi, living at his mother's place together with his son. I do not take his words literally, there are still other fishing activities carried out outside of Stone Town, but in comparison to what it had been like, it could be regarded as history. Interestingly, he regarded dagaa as separate from "fishing."

Bwana had been working with the ocean his whole life as a fisherman and on cargo ships across Europe and East Africa. He had experienced the depletion of bigger stocks in the coastal water and was worried that people would overexploit dagaa, which are also eaten by the bigger fish. Due to the simplicity of dagaa fishing, Bwana seldom fished. He would rather help at the landing sites. When I asked about this, he said, "Anyone can fish for dagaa. You don't have to do anything", while laying his head in his hands, gesturing that people went to sleep before the net was hauled.

Bwana became one of my key interlocutors during my fieldwork. Almost every day I went to Malindi, he would sit in the window of the clubhouse, observing the boats and the tide come and go, telling me stories of how the fishing had changed over the years.

Before overexploitation, *vibua* (mackerel) had been the main source of fish protein. I was told stories of how people in Malindi used to joke that the vibua gave them flu due to how sick they were of eating it. But the coastal water had become poor for fishing. Thirty years ago, no one could have imagined that the vibua would deplete. It was "everywhere" in the near water, Bwana said. Back then, dagaa was mainly fish bait. But as the top predators and the bigger stocks began to disappear, fishermen eventually turned to fishing for dagaa instead. It had become critical for food security and income, sold locally and exported. However, like studies conducted elsewhere in Tanzania (Katikiro & Mahenge 2022), people I met said they preferred eating other fishes than dagaa. But the price of the remaining bigger fish was often too high. Meanwhile, tourists and ex-pats feasted on expensive tunas and octopuses at the restaurants, and I must admit, so did I.

Bwana helped me get in contact with Captain, who later took me out fishing dagaa. Captain, is a middle-aged man who grew up in Pemba and now lives north of Malindi with his wife and children. Previously working as a policeman, he always wore a clean shirt and a Muslim skull cap, taqiyah. He was disciplined and known for his fishing skills and highly respected. As I joined Captain for fishing, other Malindi fishermen told me how sorry they were that I could not join Captain for handline fishing, which they referred to as "real fishing." Dagaa was just not the same, they said. Notably, there are other fishing techniques than handline, but it was specifically handline that Malindi fishermen compared dagaa with. When I asked Captain if we could go using handline, he told me it was the season for dagaa, and he, unfortunately, needed to follow that to make money, even if he preferred handline fishing. But he, like Bwana, worried that the dagaa stocks would deplete. There were "too many fishermen," he said.

This notion of too many fishermen was recurrent in Malindi. This worry about overfishing is backed up by research reporting a tendency of dagaa overexploitation along the Tanzanian coast (Kamukuru et al. 2020). Although the Zanzibari fishing legislation insists on a fishing license for fishermen and fishing boats (de la Torre-Castro 2006), surveillance is low. Only a few of the fishermen I met had a license for fishing, although their boats were duly registered. "No one will ask you for a license in town," people told me. Due to this low surveillance, anyone could become a dagaa fisherman, even without a license, leading to a scenario of "too many fishermen." And since the dagaa practice was regarded as rather simple, anyone could join this industry without any previous experience.

One of those inexperienced dagaa fishers was Abdullah, a young man in his 20s from Dar es Salaam who had come to Zanzibar a year earlier to make money through fishing and tourism. I met him almost every day when I was at the Kizingo market or strolled the streets of Stone Town. Abdullah told me that he did not enjoy fishing, but engaged in it since he could not survive on just tourist business, and there were few other alternatives for livelihood in Zanzibar. As Abdullah had not fished before, he could not compare it with anything else but did not believe the dagaa stock was threatened. He said they just needed new technology to go to the deep water. There was not enough fish in the coastal water, he told me.

I asked Bwana about this notion of going deep sea, he addressed it by shaking his head. Dagaa was the food of the fish, it was not good to fish for it regardless of where it is carried out. Bwana, along with other fishermen in Malindi perceived that some dagaa species were already seen more seldom seen at the markets, because of the surplus of fishermen. Yet, they continued to fish for it.

Dagaa fishing was something else. It attracted inexperienced actors who needed money and was considered simple and boring by experienced fishermen. But as it had become the main fishing activity outside of Stone Town, the practice signaled changes in tasks of fishing techniques in the region. Ingold (2000:195) uses the term *task* to describe the practical operations within an environment, the way we interact and engage with our surroundings. As fish stocks had depleted, people changed the task of "real fishing" to using ring nets, hauling vast quantities of fish. One indeed has to say there is a difference between them. The task of hauling a ring net is closer to trawling than to handline fishing. But there is a tendency to overlook the different techniques between trawling and hook and line when one lumps them together in the taxonomy of "fishing" (Pálsson 1989:12). Different fishing techniques acquire other social relations (ibid.).

Moreover, technological changes may facilitate inexperienced actors to engage in fishing (Nair 2022). According to Bwana, anyone could join dagaa fishing and learn it on the job. Dagaa fishing can be understood as a *shift of task*, which facilitated new actors, like Abdullah, to engage in the profession, not necessarily because they enjoyed fishing, but rather because they needed money. Abdullah told me that all you needed to do was to get to know a skipper and ask if you could join.

If we adopt Ingold's (2000) notions of *landscape* and *place*, we can understand the attitudes toward dagaa further. The landscape for Ingold is how the world is known by those who dwell therein, and it inhabits different places that we ascribe with meaning (ibid.192). The landscape can be understood as the map which we use to navigate between places. As a place owes its character depending on how the observer perceives it, this perception could be seen as the *affordance* of a place (ibid.). As Howard (2018) applies affordance of a fishing ground as ways one chooses to work with it. In this case, we can understand the ocean as an *aquatic landscape*, a map to navigate between fishing grounds.

The depletion of bigger fish stocks could then be understood as the Malindi fishermen perceived a decrease in the fishing grounds' affordance, i.e., ways to work with them. Hauling dagaa was so different from what the fishing grounds previously afforded with other types of techniques. Therefore, dagaa was not even considered real fishing for them. By contrast, Abdullah and other new actors who had no relation to multiple affordances, the dagaa task was all they knew. The fishing grounds' affordance had become limited to dagaa fishing outside of Stone Town. And since people needed to provide an income, dagaa fishing had become the "go-to" job for both experienced fishermen and new actors in need of cash and vital for food security.

Dagaa fishing was something different. It was a shift of task in how fishermen worked with the ocean, primarily for income. In the following sections of this chapter, we will go through this shift more thoroughly by turning toward the perception and interaction with the ocean I encountered during my time in Zanzibar and how dagaa fishing differed in practice. Following Ingold (2000), it could be read as ways of dwelling and skill that form the art of fishing.

5.2 Perceiving the Aquatic Landscape

The sun is burning. The sunscreen runs off my forehead and into my right eye. It sticks. As I come to Malindi, Bwana sits in the shade of a palm tree outside the clubhouse with two other fishermen. They welcome me to sit with them. I offer them a cigarette and place the package next to me on the concrete bench attached to the façade. A wind comes in, causing the palm tree to bend. Bwana squints at the tree, "kaskazi, we have to welcome kaskazi".

The northeastern monsoon, *kaskazi*, begins in November and lasts until the beginning of March. The monsoon is a warm wind that passes the south Arabian coastline down to the East African coast and is known to bring nutrient waters and potential for big fish yields along the Swahili Coast (Sheriff 2010), in contrast to the dagaa which is generally smaller during kaskazi. As the monsoon settles in, these winds are unpredictable and dangerous for the fishermen (Tobisson 2013). The winds of kaskazi are strong, and it becomes difficult to sail in Zanzibar's Urban/West regions. Despite the strong winds, you could take advantage of the weather by sailing south or southwest to Bagamoyo on the mainland in about three hours. Or if you fish for bigger fish stocks, you could use it to find new fishing grounds at places more sheltered from the wind, like Kizimkazi or Chumwe Bay in Zanzibar.

I later asked Bwana what he meant by "welcoming kaskazi," and he explained that the northeastern monsoon comes annually, whether you like it or not, and it did. During my stay, kaskazi increased more and more, blowing dust in our eyes as we sat outside the clubhouse of Malindi. Occasionally someone commented on the wind, and fishermen would start discussing the implications, filling me in sporadically on how to cruise with it or where you could find good grounds. An interesting event was when this led to a discussion of the arrival of the Arab settlers. Bwana explained that they had come with the northeastern wind, using the monsoon for traveling. The kaskazi wind was part of Zanzibar dwelling, coming annually, historically connecting them to the ancestors of many of the fishermen in Malindi. Seeing landscape as how the world is perceived by its inhabitants (Ingold 2000:192), the ancestors of Malindi fishermen could be understood as metamorphosed into the forms of the landscape (ibid.:53) through the kaskazi wind.

Intrinsic to the mobility of fishermen, the usage of wind has been crucial for traveling and trade connections across the Indian Ocean (Sheriff 2010). If one knows the wind, one can use it for travel. The wind and the water connect Zanzibar to the rest of the world, physically but also in opportunities to travel to different places, like Hau'ofa's (1993 cited in Helmreich 2011:137) notion of Oceania as a sea of islands connected by water. The mobility of the fishing profession became evident as many of the fishermen used to travel to Dar es Salaam or Bagamoyo on the mainland whenever the market or the fishing grounds were better there. There was a balance between the abundance of fish in the water and the demand on the market to decide whether you would leave home.

When I got this mobility explained to me, it was sometimes complex and contradictory; If you knew that there were little fish outside of Bagamoyo, the price on the market would increase there. You could then travel with your catch from Zanzibar to Bagamoyo and sell it for a good price. But sometimes, fishermen heard that there was more fish outside of Bagamoyo, which caused some of them to go there. In addition, following a migratory pattern, often in connection to the monsoon, some set up temporary camps known as *dago*. At the dago they could fish nonstop for one or two weeks and return home with more money for their family. But during kaskazi, this was a risk.

I had read of the dangers of the monsoon before I went to Zanzibar, and as Bwana started to talk of kaskazi just about two weeks into my fieldwork, it got me a bit worried. It eventually opened a peculiar perspective, "death is present all the time when you are home or in the dala dala," I was told. This did not calm my nerves. I kept asking but met similar answers – I could die on land any day as well. No one denied the danger, but nevertheless, they did not seem to worry about it. Going fishing was always a risk, but it was a risk in everyday life in general. This perspective on the dangers of the ocean was very hard to grasp. For me, there was an obvious difference between strolling on solid ground and sailing in an aquatic landscape. But I had not grown up by the sea and did not know it as these fishermen do.

"The ocean has no friends," an interlocutor declared. You could be a good swimmer and experienced fisherman, but it will not help if the ocean is rough. If a storm comes in, you should just sit still. In case of a capsize, you should blow the whistle and hopefully get help. Even if data is missing on fatalities at sea in Tanzania, there are often reports of struggles with rough seas and unexpected storms (Mwaipopo 2017). Almost every fisherman I met had a friend or knew someone who had died during a fishing trip.

Still, many expressed their emotional attachment to the ocean. Bwana could not live without it, "I love it. Sometimes it's rough, other times calm. But it's still the same ocean". Often during mid-day, it would start raining heavily, and the wind would blow hard, turning the water from turquoise to a sky-grey nuance that united the ocean with the sky at the horizon. I sometimes sat for hours in Malindi, watching the tide withdraw, stranding dhows, and leaving a coastline out of plastic bottles and junk.

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 $^{^{\}rm 5}$ Dala dala is a minibus or a converted truck that works as public transport in Zanzibar.

I was told that fishing with handline was about reading subtle phenomena in the surroundings, and Captain was known to be tremendously good at this. During the full moon, when the dagaa season stopped, he switched to handline fishing. During these trips, he was out for two days in a row, fishing non-stop. While others used lamps to attract big fish, Captain could "read the light," as Bwana's brother Karim told me. To read the light was to know the reflections in the water and understand the movement of the fish. Handline fishing was as psychological as physical, to be stubborn, to not give up once you have the fish on the hook and toil the line even if it cuts into your palm. While many now used GPS to find fishing grounds, Captain used traditional knowledge of navigating with stars and landmarks together with GPS. This type of knowledge was highly respected by the other fishermen.

This reading of the light could be understood as a technique to catch what a fishing ground affords to offer. Handline fishing emphasized a different affordance while interacting with the aquatic landscape. Using the fishing grounds, the weather, and light to get your catch (e.g., Howard 2018:67). Moreover, interpreting the affordance of a fishing ground requires skill. Ingold (2000:402) writes of skill as a subjective interpretation of and bodily modification with the surroundings, grown and incorporated into the body by training. In that way, skill should not merely be considered a script passed down through generations. It is information offered to the novice agent to perceive and work with to shape it to your individual task (ibid.:167).

Similarly to this, I was told you had to learn to fish by yourself. No one could tell you how to do it. The elders could merely give you advice on doing it. But navigating and reading the light were skills you had to accumulate by yourself. This subjective skill was also visible in how individual fishing grounds were a secret. If you found a good spot, you could not tell anyone. It seemed to be a charm in this, to find a good fishing ground that others could envy and try to get you to tell them where it was. In Malindi, I was told stories of how a fisherman had been spying on Captain out on the sea to find out where he found his yield. People laughed at this story, Captain included, but he added that he would never take the man on a fishing trip after he had done that.

Captain would seldom speak of his skills in fishing, but others in Malindi, like Karim, repeatedly said he had admired Captain during a trip. Karim told me how the predator followed the waves mimicking its hunt for food, and how Captain got in on the hook and fought against

it. Ascribing the predator with a hissing voice, he retold Captain's struggle with the handline until he eventually had conquered and caught the fish. As Ingold notes, telling stories could reveal the narrator's own skill (2000:25). Yet more stories gave hints of Karim's skills and interactions with the ocean, giving the fish a sense of human feeling as another living being (ibid.). These expressed emotional attachment, knowledge, and close relatedness with the surroundings is reminding of how Nightingale (2012:144) writes of the Scottish fishermen who considered fishing as a "way of life" rather business. In contrast, catching dagaa did not come with the same emotional engagement.

5.3 Dagaa Fishing in Practice

It is 02.30 on the boat, and Captain calls on his colleague Abdi. Some warm yellow lights are coming from a boat a couple of hundred meters away. In the dark, I see the yellow lights coming closer. It is a dinghy. The man onboard sits on his knees, paddling his way toward us. The waves look almost bigger than the boat, but he manages to reach us. The man tosses a rope that Abdi ties onto our boat.

Half an hour later, the bigger boat approaches us. The crew is in a good mood, laughing and screaming at us as they come closer. I count 16 people on the boat, a skipper sits by the outboard, and the rest of the 15 people are baharias, net haulers. We drive about 100 meters from them and let the dinghy take over our spot with its two lamps. As the ring net is laid, the baharias start to haul, shouting in time to keep the same pace. A huge pile of fish rises from the surface as we return to them to scoop over the catch to our boat. The ring net starts to fold, and the fish fall back to the water, "Hey, mzungu⁶! Help!" I quickly tense up the net by hauling it onboard. It is heavy, my body aches from sleeping on the hard deck, and my fingers are stiff from the cold. After a while, I realize I am standing in fish, splashing around me. Someone laughs at my surprise and asks me to take a picture of him holding a bucket of fish. After 15 minutes, we are done, and the boat is filled to the width with thousands of flapping dagaa on the deck.

⁶ Mzungu is a Kiswahili term referring to a white person.

Dagaa fishing is carried out using a big wooden flat-bottomed boat, *mashua*, accompanied by smaller boats, the *dinge* (dinghy) and the *mtando*. The dinge is carried out in the sea by the mashua and is later launched into the water equipped with two lamps. It tosses anchor and waits to attract the fish before the mashua comes with a fine-meshed ring net and surrounds the spawns that circulate around the light. The mtando is a bigger than the dinge, equipped with four lamps and occasionally a neon lamp sunk down under the surface. Using more lamps than the dinge, the mtando attracts bigger shoals.

Generally, the mashua lays two nets per night, one around the dinge and another around the mtando. As the dinge is part of the mashua crew, the catch that the dinge attracts goes solely to the mashua. The mtando has its own crew of three to four persons and gets half the profit from the net laid around its boat. The mashua hauls the net from the dinge first. The dinge then paddles to the mtando to take over the spot with its two lamps. Having the effect of a bottleneck – decreasing the light spread makes the shoals follow and concentrate around the small dinge, which facilitates the ring net to surround it. The net is then hauled manually by the baharias on the mashua. All these activities take place after seven hours of floating on the Indian Ocean, with the lamps blinding the surface to attract the shoal.



Attracting shoals (photo by author).

We had left shore with the low tide, giving us a tailwind as we headed out, letting the mashua guide the way to the fishing grounds. Even if we had an outboard engine, we followed the tide. The wind was particularly relevant for sailing but also saved us gasoline. More and more people had outboards, but also fiber boats had started to become popular. In Malindi, people had been speculating that everyone will use fiber in ten years, it was faster. But the old tradition of following the wind lingered on. Sheriff (2010) writes of changes in history as the *longue dureé*, where he argues that even if we tend to see events and eras as limited to a time frame, aspects of them linger on and transform gradually. This could be applied to the practice of fishing in Zanzibar. It did not matter that much if you followed the wind or not. You could face the wind with an outboard engine, but it was in favor to travel with the wind, Bwana had explained to me. As we left shore with a tailwind, together with dozens of dhows and fiber boats. It mirrored future equipment using old techniques of the wind. The present gathered "the past and future into itself, like refractions in a crystal ball" (Ingold 2000:196).

As we tossed anchor, Abdi and Captain had started to try out the lamps, switching light bulbs, and climbing across the boat whilst it was rocking. I tried to help, but as soon as I stood up, I was thrown to the side of the boat by a wave. In this sense, one could literally speak of a lack of "sea legs," as Pálsson (1994) writes of as a metaphor for gaining enskilment among Icelandic fishermen. Abdi and Captain, in contrast, moved broad legged with ease as if they could predict the waves. The boat could sometimes rock quite heavily. I did not dare to challenge my faith or try "getting sea legs" that day. They went to sleep to the loud hum of the diesel generator powering the mtando lights.



Before bedtime (photo by author).

The waiting was very long. Going through my field notes, I note that as I was physically being thrown from side to side in the rocking boat, I was also thrown between being scared to death and restless. It was hard to fall asleep, I slumbered for a while but woke up every time there was a big wave or when Captain or Abdi moved. Lights in the dark revealed that there were other boats around us. You could not hear much except the buzzing generator and the waves splashing. It was impossible for me to tell the distance to them. I tried to be thrilled and pay attention to what was happening, but there was not really anything happening during these hours of waiting for the mashua to lay the ring net. As the sun settled, the stars appeared above us alongside a red light of what I think was Venus. Next to us, some crabs floated by, pinching themselves forward with their claws. Below the surface, small pelagic stocks swam in circles. Occasionally a large shadow penetrated the shoal, splitting it into smaller groups. While observing this, I was mostly puzzled that I had dared to go on this trip in the Indian Ocean and quite concerned with what I would do if we capsized.

From a dwelling perspective, this moment of waiting said something about the perception of this aquatic landscape and the fishing grounds. While I was frightened during this trip, Captain and Abdi slept continuously. They knew these fishing grounds. Their everyday activities had

shaped their perception of this aquatic landscape and where to fish. Through interactions with it, it had become a home to them (Ingold 1996 cited in Ingold 2000:57). This somehow gave me comfort, Captain and Abdi would notice if something was wrong. If they slept, it meant that it was relatively safe, I figured.

Even if dagaa fishing was treated as something different to other methods of fishing, it was still interaction with the sea for catching fish. But the Malindi fishermen claimed that there was neither need for knowledge nor skill compared to handline fishing, which was regarded more as a way of life. In Ingold's terms, catching dagaa implied a different *task*, if a task is seen as a practice and act of dwelling (Ingold 2000:195). Cooperation is crucial in the practice of hauling nets (Pálsson 1989), in stark contrast to the practice of handline fishing which relies more on individual skill.

When catching dagaa, the mashua skipper navigated to fishing grounds, the mtando attracted the fish, and baharias hauled it. To understand the shift of task that dagaa fishing implied for fishermen, it is notable that the mashua skipper navigated. In the mtando, we had no part in deciding where to go. Captain and Abdi just followed the mashua. The skills of reading the light to find fish grounds were redundant in the mtando. As lamps were set up, the fish came to you. You did not have to do much, apart from waiting for the shoal to gather and literally grab it out of the ocean. In that sense, there was not much skill needed for catching dagaa.

The affordance of fishing grounds for catching dagaa did not demand you to interact with the surroundings to the same extent as with handline. The depth needed to be 15 meters at least, preferably 20 meters. Apart from that, you just needed to wait. Even if kaskazi settled, bringing only small dagaa, fishermen did not adjust to this. It was carried on, on the same grounds, using the same techniques. This task, along with the divisions of labor (I will discuss them further in the next chapter), turned the ocean into more of an industry with workplaces rather than fishing grounds.

The way Malindi fishermen spoke of handline fishing, as an interaction with surrounding the light and follow monsoons to find new grounds, it seemed like a profession and a task that was more embedded with passion and excitement. Hauling a ring net with dagaa was not spoken of with the same passion. It was "boring and simple" and "just to make money," Bwana said. Abdullah seemed to think similarly as he framed it as "just a job." No one seemed to enjoy

doing it. But since other species had depleted in the region, catching dagaa was the main task to make a livelihood out of what was left in the ocean – small pelagic fish. Moreover, as the passion for fishing seemed to be lacking with catching dagaa, this meant that it was a shift that sharpened the incentives to fish, to merely make a living. Seeing intention as based on *satisfaction* (Searle 1983 cited in Howard 2018:32), dagaa seemed to be all about making a profit. The satisfaction of dagaa fishing as "just a job," was the awareness of the money it could bring. If handline fishing was considered "a way of life," dagaa was regarded more as what Nightingale (2012) refers to as a business, driven by an economic need. This satisfaction of making money also affected the fishing seasons.

Following the Islamic moon calendar, the season for dagaa stretched between the 20th and the 10th moon day, the moonless period. The full moon lights up the surface which makes the lamps on the boats insufficient for attracting dagaa. But as people needed money, they were motivated to break this pattern and fish even during full moon. "People say that they might as well sleep on sea and fish for dagaa", Bwana said and explained that even if it was more difficult to attract dagaa during full moon, there were fewer boats to compete with, which increased their chances to make money and a chance to put food on the table and make an income. In this sense, dagaa fishing was not as much about the interaction with the surroundings as about money. Unlike other fish, dagaa came across as cash floating in the ocean, which you needed to catch before someone else did.

To sum up this chapter, we could understand how other types of fishing required a closer interaction with the surrounding. There was a need for reading lights, winds, and waves to know where you could find fish at different depending on season and weather, but with dagaa fishing, these interactions were not needed. It was treated as something different from real fishing. People considered it to be more of an income. It was a *shift of task* that few fishermen fancied, established due to depletion of bigger fish stocks. Moreover, this new task attracted new actors who lacked other alternatives for a livelihood, creating a scenario of "too many fishermen," some perceived the dagaa stocks to be depleting already. But since people needed money, people felt that they did not have much choice but to turn to dagaa. In this sense, dagaa fishing was more of a business than "a way of life," it seemed to influence the relation to the ocean as a landscape.

6. Capitalism in Zanzibari fishing

As argued in the last chapter, dagaa fishing was a shift of task in the interaction with the aquatic landscape. It was not even considered real fishing, merely a job. This chapter turns toward capitalism in Zanzibari dagaa fishing to investigate its role in the relationship between dagaa fishermen and the ocean. I will account for how dagaa fishing had established capitalist structures, with classes and divisions of labor. Further I will argue for how the pursuit for profit could be seen as alienating the fishermen from the fish and the ocean, where concerns for future yields were abandoned. Within this context, I will argue for how the dagaa industry changed the fishermen's relation to the ocean, becoming mor of an industrial aquatic landscape to engage with for wage-work.

6.1 Class in fishing industry

The IMF program began to liberalize the market in the late 1980s. Tanzania went from socialism to neoliberal capitalism in less than a decade. In Zanzibar and Tanzania in general, this marketization caused prices of food and commodities to increase drastically (Keshodkar 2022). It also changed the school system. Parents had to pay for school uniforms, books, and pens for their children (Right to Education Initiative 2015). This has fostered a greater need for cash in Zanzibar (Tobisson 2013). Within fishery, it has been noted that Tanzania's transition towards marketization changed the mentality and the competition amongst fishermen, a mentality of "get yours before someone else gets theirs" (Raycraft 2019:304).

As the dagaa industry has increased significantly since 2000 (Fujimoto 2018), it has been fostered in this neoliberal political economy. In 2002, Zanzibar banks ceased loans to buy boats with the motivation that fishermen were unable to pay back. Instead, they should either self-finance them or get a government grant (Nassir et al. 2022:53). A fishing boat now costs around 40 million TZS (17.000 USD), and many who own a boat have now started to employ fishermen on informal contracts without engaging in the practice themselves (ibid.). It has been noted that these boat owners are often successful businessmen who engage in the dagaa industry as a side business (Fujimoto 2015:41). In fishing communities outside of Stone Town, people often share the boats with each other. By contrast, most of the boats in Malindi during my fieldwork were

owned by private actors who rented the boat to skippers on informal contracts while taking a large cut of the profit from the daily catch.

The income from a catch depended on the amount as much as the market. The fish price used to be fixed before the market got liberalized (Mkumbukwa 2014) but was now following the market demand, varying daily depending on competition and season. As kaskazi - the northeastern monsoon, settled during my fieldwork, the dagaa species was, as mentioned, very small. Hence the price was low as well. The catch was sold for between 2000 TZS to 7000 TZS per bucket, about one to three dollars. Two thousand shillings was considered way too low. People in Malindi spoke of that price for days. No one could make a living off that meager price.

The profit from a catch was distributed equally between the boats. This meant that the mtando, which generally had a crew of three to four persons, got just as much as the bigger mashua boat crew that had to split the same sum with 16 persons. But as the latter crew laid two nets a night, they had a chance to get some more. But before the salary was distributed, each boat had to pay for fuel and the rent to their boat owner. During an interview, the deal between the crew and the boat owner was explained as follows:

> [If we] get 4 million [TZS]. 2 million goes to the owner, and the remaining 2 million is going to the captain and the baharias. From that, 2 million fishermen will get 30k, and the captain maybe 50k or something like that [...] the money we get is also used for petrol.

Furthermore, the crew had to pay for any damage caused out at sea. Needless to say, this deal was in favor of the boat owner. Whenever I asked about this relationship, fishermen thought it was a "fair" deal since they could never afford a boat themselves. Without the boat owners, they could not fish. Additionally, the boat owner often had a fixed buyer or a trader, guaranteeing an income. As I was told, it was these traders who paid government tax. The fishermen or the boat owner (unless he was selling it himself) did not have to pay for it. Although, if you had a very good catch, the fishermen might have to pay some to an official at the landing site, the restrictions around that were explained to me as rather informal.⁷

⁷ I do not want to ascribe this explicitly as a bribe since my interlocutors did not speak of it in that sense.

The relationship between actors in the Zanzibari seafood trade has been described as complex and not solely a question of exploitation of fishermen. The relationship exceeds mere financial interest toward a social obligation where the boat owner, traders, and the fishermen have a reciprocal exchange between them, such as assistance when it is needed (O'Neill & Crona 2017:198). Although these social obligations with the boat owner nuanced the relationship of fishermen being purely exploited. Still, people needed cash. As the boat owner took half the profit, the fishermen had to fish even more, putting more pressure on the dagaa stocks.

"The owner is home, enjoying life," Abdullah told me when I asked about the role of the boat owner. Meanwhile, fishermen worked nights with neither a contract nor a fixed wage. Abdullah sometimes, after a very bad catch, finished a shift without getting any payment at all after covering the expenses. Despite social obligations, from a purely economic perspective, the labor of the fishermen was exploited by boat owners. Classes arise when groups attempt to appropriate surplus through other people's labor (Howard 2017:148).

Class can be seen as social relations, to what extent people can control their bodies at work, the conditions, and how the surplus is distributed (Howard 2017:150). Since the bank seized to give loans to fishermen, these boat owner in the dagaa industry had become a new class in fishery, albeit not active in fishing per se. Even if there was no formal contract, the circumstances limited the options for the fishermen. Captain told me that the owner of his boat would sometimes even take up to two-thirds of the profit. But Captain could not afford to buy a boat himself. Thereby, he had not much of a choice but to accept this boat owner class and adhere to the fact that his own body at work and income was depending on the relation to the owner.

While Captain struggled with his deal with the boat owner, we must still distinguish the baharias from him and other skippers. It was as if they were an additional actor or class. The skipper was responsible for renting the boat and navigating, and the baharias were merely *muscles* for hauling the net. Many of the baharias I met had no particular skill in fishing, and as mentioned, it was not really needed for the task. Nothing was expected from them when they reached the market. As the skipper talked to the boat owner at the market, the baharias would stay on the mashua to help sort the fish before it got carried to the market. The daily wage for a baharia would be between 5.000 TZS (2.4 USD) to 10.000 (4.8 USD). Abdullah told me he once had 50.000 TZS (24 USD), which was immensely unusual. In general, fishing did not pay off, and

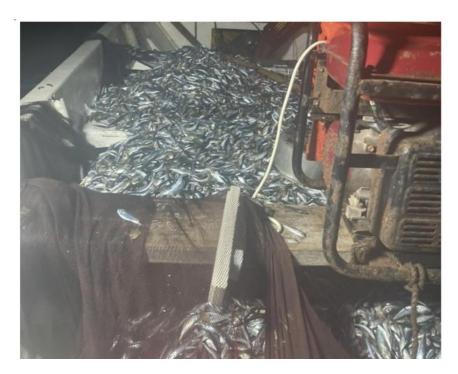
he did not want to do it. But besides the tourist business, it was the job opportunity that Zanzibar had to offer to Abdullah.

The baharias were mainly doing one task, hauling. Abdullah summarized a fishing shift for baharia as "waiting, hauling, and making sure not to fall overboard." They were picked up in the afternoon when the skipper came to the Kizingo landing site and left off when the work was done. You were expected to be there whenever the skipper called. Otherwise, you might be replaced by someone else. Following Howard's (2017) definition of class, these baharias had even less control over their labor, which sharpened the division between skipper and crew. But regardless of this division, neither of them had alternatives to provide their own livelihoods. They were merely paid in money for their labor and could not afford to invest in the business. These structures were much like what Howard would ascribe as a wage, labor bought as a commodity (ibid.:167), alienating the fishermen from their interaction with the ocean. But despite this class stratification among fishermen with varying payment, the skippers and baharias were both united as a part of an exploited boatless proletariat class (ibid.:174).

6.2 Alienation in the Industrial Aquatic Landscape

It is 03.14. The ring net is hauled. Our deck is filled with small fish, saradini, and dagaa splashing against each other, trying to breathe. An intense noise that slowly decreases as they die one by one. After 10 minutes, they are all still. We had a good catch tonight.

Afterward, I realized the weird experience of sitting amid a pile of suffocating fish while cheering over a good catch. This fish that used to be the food of predators was now caught for human consumption. But when I was there, I was just glad we got a good yield, not only for my data collection but especially since it meant that Captain and Abdi would get paid that day. Dagaa was money.



Catch of the day (photo by author).

The first week I spent in Malindi, I showed videos of fishermen in Gotland, Sweden, who threw back juvenile species to secure a future yield. Bwana laughed and showed it to others, saying, "We cannot do that here." People needed money. As argued in the section above, the dagaa industry has been shaped in a neoliberal context, with insecure payments to cover one's livelihood in a society that has become more expensive and difficult. What was interesting, though, was how Bwana spoke of earlier practices and attitudes toward fishing:

People used to care about fish for their children's future, now they just fish and fish. They need it for bread and money. They don't care for the future or for the fish anymore. It's just to make a living. The ocean can never rest.

It was hard not to react to his notion of loss of future concern. A precarity of needing cash in the present caused people not to afford to think about the future. Bwana often spoke of how it had become more expensive and "hard" to live in Zanzibar. He used it to justify the fishermen's frequent fishing, "people need money for their families." A need that was met at the expense of the care for "the fish of their children's future." Even if he never spoke of the IMF or any market liberalization, Bwana would often refer to the 1980s as spoke of how living in Zanzibar was easier.

When Tanzania entered the adjustment program in the late 1980s, prices had increased on the market. As neoliberal capitalism implies an even more increased insecurity of the present and the future (Ortner 2018:55), this led to changes in Tanzania. Studies have noted that in both Zanzibar (Tobisson 2013) and the mainland (Raycraft 2019), the ocean got overfished due to people's economic struggle. This can be likened to how Bwana spoke of a change, from care for future yields toward a more acute need for cash. The reinvestment in the ocean was sacrificed for the pursuit of profit (Clausen & Clark 2005:426). This resembles a metabolic rift (ibid.).

Similar to how Ingold (2000) writes of task, the metabolism of labor, for Marx, is the process between humans and nature ([1890] 1990: 283 cited in Howard 2018:68). It is production, in general, separated from capitalism (Howard 2018:68) and economic value. When capitalist systems penetrate this labor (or task), it creates an irreparable metabolic rift between humans and the environment. This rift violates the recycling and sustainable interaction (Foster 1999:383). It reorganizes the relation to one that is purely driven by an economic interest (ibid.). Clausen and Clark (2005) write of how new technologies developed in capitalist production "continues to contribute to a metabolic rift and to create new ones" (ibid.:427). Dagaa fishing can be understood as a new rift with other technologies, such as diesel generators, lamps, and ring nets.

To understand the alienation in dagaa fishing, we should consider how capitalist values tend to structure social, economic, and ecological relations (Huber 2017 cited in Howard 2018:69). The dagaa industry has structured divisions of labor, where the baharias have nothing to do with navigation and no say in when the activity should be carried out. Their bodies are muscles for hauling a catch that the boat owner can capitalize on. Similarly, the mtando crew, like Captain and Abdi, merely follow the mashua. They have no say in where to fish. All they have to do is to put up the lights and wait for the ring net. While the mashua skipper navigates and choose the location, he has no part in hauling the net nor attracting the shoals. These different divisions of labor with specific tasks alienate the fishermen from the whole engagement with the ocean to catch fish. It is considered as just a job that "anyone" can participate in and, hopefully, get a wage from the catch. If we can see dagaa fishing as a shift of task, centered around money rather than embedded in a way of life, we should add that this business is an industry in the aquatic landscape. With laborers carrying out their specific tasks in the production of catching dagaa. A 14-hour night shift, extracting a resource for an insecure wage.

These structures, and the fishermen's attitudes towards dagaa fishing, seemed to influence how the ocean was perceived and engaged with as a landscape. Landscapes are closely related to the past, present, and future; it is the "homeland of our thoughts" (Merleau-Ponty 1962:24 cited in Ingold 2000:207). The aquatic landscape in Zanzibar was pregnant with the past (Ingold 2000:189), like Malindi fishermen remembered their ancestors by perceiving the kaskazi wind. Still, the possibilities interpreted of the fishing grounds in this aquatic landscape were merely dagaa fishing, which was an exclusively profit-driven industry. The ocean was a landscape to engage with for wage. In that sense, the dagaa industry influenced the fishermen's relation to the ocean, it was more of an *industrial aquatic landscape* to engage with for a wage.

During interviews, I further encountered what I came to read as the consequence of the alienation and the separation from the ocean: the idea that dagaa was an unlimited resource. While some thought that overexploitation would be solved through going to the deep sea, other did not even perceive it as a problem to be inshore. A young man living in a village north of Sone Town told me:

It is overexploited, but it doesn't affect the amount [for me], [I] still get the same amount now as five years ago. [It is the] the same now as in the past. The problem is fishing big fish that's a big problem because we do not [find any]. But there is always dagaa.

There was always dagaa, he claimed. This reminded me of how I had been told stories of the mackerel 30 years ago. Then there was always mackerel, they had said. I tried to ask him about the contradiction in acknowledging the overexploitation of big fish but neglecting its effect on dagaa, but he did not think it was the same. He spoke of dagaa as an unlimited resource. I was puzzled by his answer. I later met other fishermen who uttered similar opinions.

I cannot state if anyone truly believed dagaa to be unlimited. But as the dagaa situation was described as "too many fishermen," despite that some perceived the stocks as depleting, we could ascribe these fishermen as at least *acting* as if the dagaa was unlimited. Even the people in Malindi who thought there was too much fishing, as they continued to fish, people needed money as Bwana said.

We might be able to analyze this idea of unlimited resources through Trawick & Hornborg's (2015) notion of the illusory worldview of unlimited goods. As they state, this worldview

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falsely assumes that economic growth is endless (ibid.). However, as the world consists of limited goods, this growth is both destructive on behalf of the environment and unequally distributed in the world. Leading to increased socioeconomic gaps globally. As ordinary people try to cope with these inequalities and work to remain in the same place relative to everyone else, they paradoxically contribute to maintaining this hegemonic, fundamentally destructive process by adhering to the game (cf. ibid:5). This could possibly be applied to the political economy in Zanzibar, who have had major price markups on the market since it got liberalized, meanwhile struggling with poverty across the archipelago (Keshodkar 2022). This struggle to make money, and the alienation of the industry caused people to catch dagaa, even though some perceived it to be depleting, they could not afford to do otherwise. An act that could be ascribed as aligning with the worldview of unlimited goods.

Just as other resource industries, the dagaa fishing carried on with its extraction, hauling vast quantities of fish like it was money up for grabs, transporting it to an owner who would take half of this profit. Fighting a losing battle against the fact that the limits of the world's resources (cf. Trawick & Hornborg 2015:5), with its labor workers trying to make a living out of it.

6.3 Conflict of Morals

More and more people gathered around the boat as we reached the Kizingo market, begging us to give them fish. Many with scrawny bodies and wornout clothes. From a methodological perspective, this activity should have been participant observation, but at this moment, I was honestly just observing. I had no idea how to act. For a while, I could not even see Captain in the crowd. People were surrounding me, asking me to fill up a bucket. After a while, I realized Captain would let people fill their buckets if they did not take it uninhibitedly. Whenever someone threw themselves over the catch, Captain would intervene and ask them to leave. As we got back to Malindi, Captain counted the profit. When the expenses were covered, they got 20.000 TZS each, about 8 USD. He sighed. With that big catch, he had hoped for more.

As I returned to Malindi the morning after, I was told that Captain used to give more than he had to both at the market and in his home village. Captain was, in their words, a" good citizen."

But he was not alone in sharing his catch, Abdullah had told me he often went to the Kizingo market and asked those with a good catch to fill his bucket with dagaa. While fishermen claimed they were fishing merely for individual income, they actually gave away parts of the fish. This somewhat resembles Hage's (2003:146) notion of vertical reciprocity of honoring the society by caring for and recognizing its citizens.

"Yes, I give some," Captain said and laughed as I asked him about sharing the catch. He did not make a big deal out of it. He just kept an eye on people and made sure that no one took too much. As dagaa was equal to cash, giving away fish was another way of giving away part of one's wage earned in the industrial landscape. For this, he was regarded as a good citizen. A "good citizen," from a Western perspective, is often in common tongue ascribed to taxpayers. But taxes could be understood as a paid debt for government services (Graeber 2011:55). This could be understood as some informal tax paid directly towards one's fellow citizens, based on moral rather than legal constitutions. Being a good citizen for a fisherman in Zanzibar was, in this case, to share his yield with fellow citizens.

Before the market got liberalized, Tanzania's socialism followed a moral ideology called *ujamaa*, which means familyhood. This ideology stemmed from culturally grounded values of solidarity, opposing capitalism as selfish (Ferguson 2006:75). Even if the politics of the Zanzibari government did not incorporate ujamaa to the same degree as the mainland (Nassor & Jasor 2014), the era was oriented by societal moral of generosity and reciprocity (Keshodkar 2022:40). In contrast to the moral of ujamaa, neoliberalism could be ascribed with a moral of maximizing individual profit (Nair 2022). But apparently, the transition to neoliberal capitalism that has been described as a change to "get yours before someone else gets theirs" (Raycraft 2019) should be nuanced to understand Captain's generosity at the Kizingo market.

Social relations and morals are essential for Tanzanian selfhood. Not sharing could be understood as an act of selfishness (Uimonen 2012:200). Even if capitalism had created a metabolic rift where fishermen overexploited the waters for money, they still acted on a sharing morale. In this context, Zanzibar can be understood as what Uimonen (ibid.) calls a state of creolization, with moral customs of the ujamaa socialism that coexisted and overlapped with the neoliberalism introduced by the IMF program. Capitalism had caused a fixation on earning money that caused people to fish more frequently, which led to a depletion of dagaa stocks—meanwhile, fishermen had a moral obligation to share their yield with fellow citizens.

But while people acted upon this sharing morale, it also caused distress, especially among young fishermen who had grown up in the era since the market got liberalized. They longed for commodity goods for personal needs, which caused a conflict between individualism and the obligation to provide their family with financial means. One of those who expressed this was Abdullah. His father had left the family, and as Abdullah was the oldest son, he was expected to provide an income for the family in Dar es Salaam. Even if there were more industries on the mainland, job opportunities were scarce. This caused Abdullah to go to Zanzibar.

Due to loose regulations, Zanzibar offered an opportunity for informal work or *hustling*, as Abdullah called it, such as offering boat trips to tourists and hauling nets as a baharia. He did not want to stay in fishing. It was not for him, he said. But along with tourism, it was in the dagaa industry that he found money to send to his family. Although he seldom earned enough. He was often concerned that whenever he had money, his mother would call him and ask him to send some:

Sometimes I make money, [so that] I can buy a phone and tv. Before you buy a tv, your mother calls you: "Hello, I'm so sick, I don't have money, I want to go to the hospital." [And I say] take mine, I'll send you. So, it takes a long time to buy something if you want to buy something. They [the family] need my money.

Economic power in a family is an essential component of masculinity in Zanzibar and Tanzania. This component has become impeded since the pauperization and unemployment that increased through the structural adjustment programs (Despres 2021). Abdullah struggled between working for personal accumulation and avoiding being a "bad son," as he called it. Adding this moral to the fact that Abdullah generally earned between 5000 TZS and 10.000 TZS a day as a baharia, this caused distress. Torn between the expectation to provide money to his family and his striving to purchase material goods for himself, he was constantly chasing profit rather than pursuing it. A new neoliberal yearning for material commodities (Keshodkar 2022:39) conflicted with his family's expectations of him to send money.

Unless Abdullah felt that he had something to give, he would not get in contact with his family, nor would he visit them unless he had earned enough. He longed to make a career in some other

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business where he could make more money. This distress and longing to progress into a different life have been identified as common among young men in Tanzania (Fast & Moyer 2018). And I met other baharias in similar positions, struggling not to be an embarrassment for the family and meanwhile languish for commodities and a different career. An expressed crisis was caused by the scarce ability to make a career in a neoliberal economy (Keshodkar 2022).

This pressure of masculinity and economic power, along with the yearning for commodities, can also be understood as a contributing aspect to the rift between fishermen and the ocean. Abdullah never spoke of overexploitation on dagaa, just that boats needed to go out further in the ocean to find bigger yields. His interpretation of the affordances was merely where to find more dagaa, find more cash, so he could avoid becoming a bad son and meet his yearnings for a tv and a phone. In addition to this, the pressure to provide for his family also had effects on the intensity of dagaa fishing. If he did not work with tourists, he engaged in dagaa fishing as often as he could to make money.

As I have argued in this chapter, the dagaa industry was constituted by classes, alienation, and a moral crisis of securing money while caring for family and fellow citizens. It had become more expensive to live in Zanzibar. The prior care for future yields had vanished – people needed cash promptly. As a shift of task, dagaa fishing centered around money, with clear divisions of labor. Every fisherman had his own task, navigating, putting up lamps, or hauling. There were not the same needs for interpreting the surroundings of the fishing ground as with other techniques. This was wage labor to engage in for one's own languish for commodity goods and to provide your family. In that sense, it can be seen as the dagaa industry influenced the fishermen's relation to the ocean. It was more of an engagement in an industrial aquatic landscape.

7. Governance and Growth in The Blue Economy

This chapter will focus on governance and the connection to the global political economy to discuss how dagaa fishing can be understood as affected by this. The overarching theme of this chapter connects to the limits of our planet's resources. Albeit subtle in the introductory sections, it will end with a discussion on dagaa as reflecting the contradiction of growth and sustainability.

7.1 Dagaa as Food Security

Even if bigger fish stocks had depleted outside Stone Town, they could still be found elsewhere in Zanzibar. When bigger fish was caught, they were often transported to markets in Stone Town, where they got sold. While visiting these markets, I found big red snappers, octopuses, and tunas lying on wooden tables, waiting to be bought. The customers for these types of fish were not the local people, even though they had eaten these fish for generations—today, the price was too high. Instead, the big fish were bought by restaurants, hotels, and wealthy people. As the prices increased and Zanzibar became a popular tourist resort, the tourists were now the consumer of the big fish.

Seeing food security as a question of distribution (Clausen & Clark 2005:437), the distribution in Zanzibar should be understood as unequal. The remaining big fish in Zanzibar have become reallocated to tourists and wealthy people. Local people have lost access to it due to economic factors. Most people did not even like eating dagaa, Bwana told me that it was what he and others most often could afford. 30 years ago, he never ate dagaa. He used it as fish bait back then. Although he laughed when he told me this, he expressed a feeling of helplessness about these changes.

Ocean grabbing has been defined as the dispossession and reallocation of marine resources that limits the prior users from accessing them, carried out by either private actors or public institutions (Bennett et al. 2015:62). As Zanzibaris have had access to fish for as long as the archipelago has been inhabited, this sudden reallocation of fish towards tourists and wealthy people must be understood as a form of ocean grabbing—the vitality of dagaa as food security was founded upon this ocean grabbing of bigger fish. In other words, the market for dagaa as

food security was not established due to the demand for dagaa per se, but because the other fish was too expensive.



Big fish, sold to hotels and restaurants (photo by author).

This narrative is, however, not acknowledged by the government authorities. The government has claimed that the demand for dagaa on the market is due to the health benefits of the small pelagic fish (ZIPA 2021). Although dagaa might be good for health, it was certainly not the reason people bought it, according to what I heard – people could not afford the bigger fish. Studies in Tanzania have pointed out similar ocean grabbing on Tanzania mainland.

"The government doesn't plan, and the government doesn't know anything about fishing," a fisherman told me as I asked about overexploitation. He blamed the government for neither incorporating closing seasons on exploited areas nor taking responsibility for the surplus of fishermen in the Urban/West. Restricting access to water resembles Hardin's (1968) privatizing solution for the alleged tragedy of the commons. However, as Zanzibar used to have restrictions on fishing grounds prior to the market liberalization (Mkumbukwa 2014), he referred to this period as more controlled. Moreover, since the Exclusive Economic Zone (EEZ) is ascribed as the property of the state, one could claim that the state is already responsible for the overexploitation (see Campling & Havice 2014).

The access to fishing grounds opened up in the 1980s with marketization, together with the introduction of community-based conservations in some areas. In the Urban/West region, the government introduced a conservation area in 2015, but the management plans have not been implemented yet (UNEP-Nairobi Convention & WIOMSA, 2021). Therefore, the access to dagaa fishing grounds in Stone Town can be understood as open. However, the government has employed beach recorders (bwana dikos) to monitor the landings in local fishing communities. This functions as a sort of bottom-up monitoring. These beach recorders keep track of landed catch and are supposed to take care of the distribution and payment of fishing licenses. It has been noted that the beach recorder often struggles with dilemmas of loyalty to their community and their family, which causes them to overlook violations against these structures, sometimes in exchange for money (de la Torre-Castro 2006). During my fieldwork, many interlocutors claimed that all you had to do was to pay the beach recorder in case he would object to any of your activities or confront you for not having a fishing license since the beach recorder, too, needed cash. In that sense, the fishing grounds can be understood as open access to dagaa for anyone to participate in.

We could then state that dagaa as food security stems from the context of ocean grabbing and depletion of bigger fish. The surplus of fishermen and the overexploitation on dagaa can be seen as a shortcoming of governance, however it would be a shallow analysis to merely point towards the government. As argued in the last chapter, this alienation between fishermen and the ocean was constituted by the increased prices and living expenses and the division of labor in the dagaa industry. The need for money made people *act* as if the dagaa was unlimited, causing overexploitation. But the overexploitation in the dagaa industry must be understood in relation to the social and economic relationships in Zanzibar (cf., Clausen & Clark 2005:424), and in that sense, the tourists were not only eating the fish and increasing the price.

7.2 The Influence of Tourism

The role of tourists in Zanzibar's political economy should not be overlooked. It has been the primary source of income since the market got liberalized. With the Blue Economy, there are big investments in eco-tourism. But the relationship between fishermen (and other locals) and the tourists in Zanzibar is worth a discussion, as tourists can be understood as promoting neoliberal values and global capitalism (Keshodkar 2013:77).

If fishermen acted as if they had unlimited access to dagaa, tourists came across as if they had unlimited access to cash. During Christmas, the restaurants and the beaches were packed with tourists wearing fashionable clothes, gorging on rare predator fish species, and spending more money on an evening than a baharia earns in a month. As the tourists constantly interacted with the local population through their leisure, this evidently influenced many locals, who strived to make careers and become wealthy. This can be connected back to Chapter 6, where Abdullah uttered such a dream. Abdullah, just like many other dagaa fishermen, engaged in tourism when not fishing. It was better paid. Working without a tourist license, the streets were filled with young men who wanted to offer you boat trips, tour guides, or any other tourist activities.

During my first week, I found it quite frustrating, as it was challenging to get to know someone who did not want me to buy something from them. Before I found my friends in Malindi, I was seen as just another tourist. As many of these tourist guides worked as fishermen on the side, I was continuously offered tourism fishing.

These fishing trips for tourism were outstanding examples of how fishermen were driven by profit and the need for money rather than the practice of fishing or the care for future fish yields. Fishing trips were offered for 50 to 70 USD, where you would learn how to fish with handline and later cook the fish on a popular sandbank. Notably, this handline fishing was what Malindi fishermen called "real fishing," an activity that had decreased due to fish stock depletion. But apparently, there was still enough to make it into a tourist attraction. The trips were arranged by a boat owner who hired fishermen to be instructors. Most of them were informal, without a license, spontaneously booked on the streets whenever a tourist asked for a fishing trip. At the end of my fieldwork, I eventually joined one of these trips to see what it was like.

The fisherman for this trip, Omar, fished for dagaa when he did not take tourists out fishing. He knew these waters, he told us. He drove towards a current stream he claimed was a good fishing ground. The sun was reflected on the surface, causing me to squint constantly while trying to follow Omar's instructions on working with the line. We had little luck. The only thing biting was juvenile puffer fish that Omar wanted to give to the stray cats in town. After a while, we decided to try another spot, but no bite. After ten minutes, Omar got restless and changed again. We switched fishing grounds about six times and stayed for no longer than ten minutes at each spot, tossing the anchor, hauling it, and tossing the anchor again. The area was depleted of big stocks. I was about to give up at the sixth spot when I realized I had got a bite without

noticing it. Subtle indicators may not be noticed by the unskilled (Ingold 2000:190). But it was just another tiny fish, a *chewa* (peacock grouper). I was about to toss it back, but Omar told me to keep it for the cats. We did not have any cooking on a sandbank that day.

If the dagaa industry constituted a rift where fish was considered cash in the ocean, this tourism fishing must be understood as an even further rift. Dagaa fishing was at least about selling fish. In tourism, this experience of "real fishing" was merely a commodity, where the fish were *utensils* to cash in on tourists. As production expands, the alienation between humans and the environment increases (Clausen & Clark 2005:427). Handline fishing skills, developed through active engagement with the surroundings (Ingold 2000:5), had become constituents in a tourist attraction where juvenile fish were caught. Omar was not a fisherman in this context. He was a guide. It did not matter if we got fish or not, as long as we, the tourists were happy.

Omar made more money by going out fishing juvenile species in overexploited waters with tourists than fishing for dagaa. Tourism was a lucrative business, at least in comparison to fishing dagaa. Abdullah told me that he made way more money from tourism than from fishing. And people needed money for their families but also for their own personal languish after commodities. This longing could be understood as coming from the tourists' conspicuous consumption. Consumption was epitomized as modernity to strive for (Keshodkar 2013:77), and in this modernity, money was valued higher than the fish in the ocean. If we connect back to Abdullah in Chapter 6, his yearning for commodities could be understood in relation to this, conflicting with the expectation to provide his family with money. He rather worked with tourists than with dagaa fishing. Still, while he was interacting with tourists, he was also interacting with the conspicuous consumption of (mostly) Western tourists, fostering a longing for wealth. Fishing, as well as tourism, was just another way to strive for this modernity while struggling with the expectation of providing your family with money.

Class differences are palpable here, as in classes as social relations and to what extent people can maintain control of their bodies at work (Howard 2017). Tourists in Zanzibar could be understood as a "leisure class" (Keshodkar 2013). With their economic capital, they managed to travel to Zanzibar for leisure, where they spent money on expensive seafood and drinks and enjoyed the exotic "paradise island" where they moved freely. In contrast to the tourist leisure class, the tour guides and fishermen who worked in tourism were dependent on the tourists' wishes to obtain their own neoliberal desire. They had to follow the tourists. If they did not,

they would lose income. If tourists wanted to fish, tourist guides/fishermen would take them fishing. Despite the depletion and the fact that they would catch small juvenile fish.

With eco-tourism as a big part of Zanzibar's Blue Economy, the influence of tourists' overconsumption will most likely increase even further in Zanzibar, contributing to the rift between fishermen and the ocean in their desire to accumulate wealth. Although with widespread poverty and unemployment, few locals will probably reach this desire. Reachable or not, the influence of the tourists can be understood as fueling the chase of profit for locals, catching juvenile fish with tourists, or going out fishing for dagaa even more frequently.

Tourists promoted the emotional satisfaction of consumption (Keshodkar 2013:77), embarrassed to say, but this included my own behavior in the field. I sometimes met interlocutors in the evenings when I was out with other white ex-pats walking between bars, spending money for pleasure. Many of them, I knew, struggled with this dream and the expectation to provide the family with money. I invited some of them to join us for a drink at some points. I did not really know how to handle it, as I realized it was part of promoting this conspicuous consumption. I was part of creating the desire for wealth, creating a rift between fishermen and the ocean. Not to mention my role in how Omar had commodified his skills and distorted his relation to the sea – I had asked for the fishing trip, paying big money to catch juvenile fish.

Tourists can be understood as part of establishing this need for money and the desire for wealth through constant interactions with fishermen and the local population. Contributing to further separation between the fishermen and the ocean. But moreover, this separation could be seen in the multilateral organizations' politics in shaping Zanzibar's political economy. To which we now will turn.

7.3 Discussion on Blue Economy in Zanzibar

As an archipelago, the ocean is the surrounding of Zanzibar. Fish, seaweed, and marine creatures like corals, sea cucumbers, and starfish inhabit this water. The ocean has been called Zanzibar's "oil," which the Blue Economy strives to utilize (cf. Owere 2022). The problem is that, just like oil, these resources are limited in a closed system of our planet (cf. Trawack & Hornborg 2015). In this section, I will discuss issues of the Blue Economy that I have

encountered in documents by the World Bank, along with investments posed by the Zanzibari government, as well as how the Blue Economy became evident during my fieldwork. In this discussion, the analysis is open-ended and left for future research.

Investing in eco-tourism, fishery, and aquaculture, Zanzibar strives to create a sustainable marine industry for economic growth and to become a leading hub for blue economy activities (RGoZ 2020). The finance for this investment is found in the World Bank (2022), other multilateral organizations, private actors, and the Zanzibari government itself (RGoZ 2020).

Several issues can be raised with this investment. As the last two sections should have been made clear, increased tourism will probably lead to even further price markups and a greater influence on local people to chase profit. Further, as marine resource extraction becomes privatized, there is a tendency to exclude local communities from their resources, thereby facilitating ocean grabbing (e.g., Roszko 2021). Lastly, the Tanzanian economy, including Zanzibar, is reliant on bilateral and multilateral donors and loans (Landguiden 2022). As loans, donors, and funds increase, so does the external actors' power to dictate the terms of development (Uimonen 2012:195). As an external actor involved in the Blue Economy, the World Bank could dictate the future of fishermen and the ocean.

Multilateral organizations tend to promote what Ferguson (2006) calls *scientific capitalism*, which is used to address how neoliberalism is presented as a non-moral technique necessary for economic growth, thereby also giving the impression of being economically correct (ibid.:77). An example of this could be how the structural adjustment program in Tanzania liberalized the market to help the country out of an economic crisis in the 1980s.

The IMF (2009) has presented this as a remarkable turnaround for the Tanzanian economy, leading to a booming market for export and economic growth. This program favored privatization, international trade, and tourism in Zanzibar. But on the other side this caused a deterioration of the welfare system, increased prices on the market, and unemployment (Keshodkar 2022:45). Even if the IMF programs framed the market liberalization as a technical tool to help Tanzania and Zanzibar to get their economy in order, these programs could be understood as a technique of "getting the politics right" by transitioning Tanzania into the global free trade (cf. Ferguson 2006:79). However, similarly to this scientific capitalism, scholars have identified the Blue Economy as an initiative framed as antipolitical, although

acting on the logic of business and a form of neoliberalization of how to tackle the environmental change with the idea of "sell nature to save it" (Barbegaard 2018:131).

In the World Bank's (2022) operational brief "Blue Economy For Resilient Africa program," in the paper, the World Bank proclaims how this blue initiative requires a financial scaling up through private investors. To attract private actors, it is declared that nations "may need policy reforms to create an enabling environment and leverage official development assistance and guarantee products to buy-down risk for the private sector" (ibid.:13). Following this encouragement to enable buy-down risk for private actors in state property, the aim of the Blue Economy could be understood as putting nature on sale to save it.

The scientific capitalism here is not only framed as economically correct but also ecologically correct – the ocean and the state will benefit if the ocean is sold to private actors. The World Bank (2022:8) claims that *weak* governance, such as corruption and insufficient enforcement, is the reason behind most challenges for the environmental commons. But if weak governance is bad, one might follow Ferguson (2006) and ask what *good governance*, in this case, means and whom it serves. A good government is not necessarily a government that is good for the people just because it is efficient and economically effective (ibid.:85). From what I encountered during my fieldwork, the fishermen did not seem to feel included in this Blue Economy.

For the fishery in Zanzibar, including dagaa fishing, the Blue Economy wants to enable deep-sea fishing to reduce the pressure on the coast near water. Meanwhile, coastal areas are becoming protected areas for ecotourism and aquaculture (UNEP-Nairobi Convention & Wiomsa 2021). The government invests in deep-sea fishing by promoting fishery as an investment opportunity (ZIPA 2021) but also by donating boats to fishing communities to enable better fishing than the "rudimentary" tools currently used (Owere 2022).

As I visited fishing communities, some of them had already received boats donated to them. The problem was that they were the same size as the mtando they already had, albeit made of fiber. As argued in Chapter 5, people wanted fiber boats because of their speed, not because they facilitated going into deeper water. People I spoke to were puzzled about this and wondered how these boats could be any safer. They were confused about what the Blue Economy really strived for. Some were upset about this, claiming that Blue Economy was just another "word"

to get funding. Others were joking about this inappropriate governing. Needless to say, barely anyone embarked beyond the reefs with these boats. It was too dangerous. Instead, these boats were used where they were suited, on the coast near water alongside the wooden dhows, continuing to put pressure on the same waters and dagaa stocks.

I continued to ask both fishermen and other locals about this since I had heard that the government wanted to expand the dagaa industry on the international market (ZIPA 2021). It seemed contradictory not to facilitate for the industry to go deep sea. No one really knew. I met some fishermen in other communities who were struggling with this as well, getting fiber boats instead of bigger boats. Some of them were upset about these boats, saying that Blue Economy was just another "word" for politicians to get funding and money in their own pockets. Others were just joking about this.



Fiber boats donated by the Ministry of Blue Economy and Fisheries (photo by author).

Perhaps the already mentioned quote can be applicable, "the government doesn't know anything about fishing" (Chapter 7.1:48). A clash between the government's assessment of the fishermen's needs for equipment. Yet, another way of reading it can be that the government has left the dagaa industry open for private actors to invest in, following scientific capitalism and the good governance of favoring the free market rather than the people (e.g., Ferguson 2006:85). The results of this, regardless of the cause, was that many fishermen felt that this was

an example of how the Blue Economy failed to provide them with the needed equipment to proceed in their activity.

7.4 Acknowledging the Significance of Limited Goods

The contradiction of not facilitating deep sea fishing while claiming to want to expand the market is not the only contradiction in the Blue Economy involvement in the dagaa industry. Remember, part of the foundation of dagaa fishing was both that other stocks had been overexploited and because of the ocean grabbing of the remaining big fish.

Some fishermen perceived the dagaa stock to be facing collapse as well. To expand in this industry despite this perceived depletion should be understood as another contradiction. Further, the dagaa industry stems from fishing down the food chain on the coast near water. Like Bwana said (Chapter 5.1), dagaa is the food of the bigger fish, people should not eat it. Even *if* deep sea fishing for dagaa were enabled – this would exacerbate the situation for the top predators living there, as it would be an extraction of their food.

Either way, the industry will most likely have a destructive outcome. If the government will not enable deep sea fishing, the dagaa in the coastal water is threatened. If it expands, the top predators will be threatened, and in the long run, the dagaa as well. In addition, the plans to expand the market internationally are a threat to the food security for the local population, as the World Bank's scientific capitalism rather promotes economic efficiency than the best for the people. Such as reports from Tanzania mainland already have reported of (see Katikiro & Mahenge 2022), where there is not enough dagaa to satisfy the local demand due to export. In this sense, we can understand the dagaa industry as reflecting how growth is equal to a destructive process (Trawick & Hornborg 2015).

The claim to unify economic growth and sustainability is based on an error in the framework of capitalism, as resources are limited on our planet (cf., Doerr 2016). Stemming from the colonial time when European countries outsourced production and fostered an illusion of unlimited resources and the possibility of creating wealth out of nothing (cf. Trawick & Hornborg 2015:1-2). This error becomes even more palpable through the neoliberal belief that a free market will increase the planet's well-being (ibid.:6). Spreading across the globe via multilateral organizations and their promotion of selling nature to save it (e.g., Barbesgaard

2018). This worldview of unlimited goods seems to have penetrated Zanzibar's governing. Visible in how the Blue Economy strives to create economic growth, but moreover visible in how fishermen had to surrender to dagaa as an industry and act as if they were unlimited due to their scarce livelihoods, despite their worry of depletion or not.

The situation of the dagaa industry can be understood as contradicting the Blue Economy's claim of sustainability. Wealth is accumulated through transformation of energy and matter, rather than something that could be created out of a vacuum (cf. Trawick & Hornborg 2015:7). To make this explicitly clear. In the dagaa industry, wealth is accumulated by extracting fish out of the ocean, exchanging it for money on land. Thereby, the wealth is grounded on the limited resource of dagaa in the ocean.

The question is then what should be done, to bring some hope? Following Trawick and Hornborg (2015), the alternative and more sustainable worldview of limited goods could cause humans to cooperate and manage our scarce resources rather than violently depleting the world in pursuit of profit. However, as they note, the most difficult task may be to convince people that it is no such thing as the "creation" of wealth, merely transformations through exchanges between energy and matter (ibid.:7). Noteworthy, for the dagaa industry to change, this conviction does not only apply to the fishermen further those who dictate the politics that you can unite economic growth and sustainable extraction of limited goods.

This chapter has aimed to show that overexploitation extends the mere practices of fishermen and stretches into the global economy of tourism and multilateral organizations dictating their loan-taking nations, like Zanzibar, Tanzania. Further, I accounted for how dagaa as food security is founded within the context of overexploitation of other stocks and an ocean grabbing that dispossessed the local population from affording the fresh fish around their archipelago.

8. Conclusion

In this thesis, I have aimed to argue how the dagaa industry reflects the global paradox of uniting sustainability with economic growth. I have done so by analyzing ethnographic data with theories of phenomenology and political economy to argue how dagaa fishing was a shift of task that alienated fishermen's practices and relation to the ocean. I have further drawn on policy papers and project plans to substantiate the ethnography with how the overexploitation of dagaa connects to the global political economy.

In Chapter 5, I argued how dagaa fishing could be understood as a *shift of task*. I started off by giving an account of how dagaa fishing was considered something different from other fishing activities. As other stocks had depleted, the affordances of the fishing ground had decreased, and thereby also ways to work with it. As dagaa fishing was compared to handline fishing by interlocutors in Malindi, it became evident that dagaa was different. It was considered just a job. I analyzed this by turning to Ingold's (2000) dwelling perspective, where I concluded that dagaa fishing could be seen as a shift of task, i.e., ways of interacting with the ocean. Interacting with the wind and the waves to the same degree as other techniques was no longer needed. Moreover, the dagaa task was simple and attracted new actors who became fishermen just to get money rather than working with the ocean as a way of life. Through this, I turned to how neoliberalism affected the perception of the ocean.

In Chapter 6, I accounted for how the dagaa industry had become established in capitalist structures and argued for how this has changed the fishermen's relation to the ocean to more of an industrial landscape to engage with for a wage. New classes have risen within the dagaa industry, such as boat owners who rent boats to skippers and function as an employer with informal contracts. Moreover, fishermen were divided into different divisions of labor. Together with the need for cash that had increased since Tanzania liberalized the economy, this created a metabolic rift that alienated fishermen in their relation to the ocean, acting as if dagaa was an unlimited resource. Dagaa fishing was just another job, and the affordances of fishing grounds were just seen through the lens of profit. Dagaa was money. The ocean came across as an industrial aquatic landscape where one earned this money. However, morals from prior to the neoliberal economy lingered on, where fishermen felt obliged to give fish to fellow citizens to become "good citizens," and even more palpable, the obligation to provide your family with money to be a good husband or a good son. This moral caused distress among men as it conflicted with their personal neoliberal yearnings for commodity goods.

Lastly, in Chapter 7, I turned toward governance to argue how fishermen's overexploitation of dagaa could be understood as connected to the global political economy. I did so by accounting for how the vitality of dagaa as food security was partly founded upon ocean grabbing of bigger fish, reallocated to wealthy people through the logic of the market economy. Further, I argued that the close interaction with conspicuously consuming tourists contributed to a desire to accumulate wealth. I substantiated this claim by showing an ethnographic example of how fishermen arranged fishing trips for tourists where the catch was juvenile species—alienated from the ocean by the pursuit of profit. I then turned to analyze how Zanzibar's investment in the Blue Economy seemed to be impinged by the World Bank's scientific capitalism in favor of "good governance" for business rather than the people. I illustrated this by showing how the government failed to provide fishermen with the equipment they needed to go deep sea—resulting in further pressure on the dagaa stocks in the inshore water. Finally, I concluded the chapter by discussing the contradiction of economic growth and sustainability in the dagaa industry.

As an archipelago in the Indian Ocean, Zanzibar has fishing traditions going back millennia. These interactions and practices with the ocean now seem to have transitioned into a mere job to cash in. The dagaa industry has expanded due to fishing down the food chain activities. According to my interlocutors who had experienced this previous depletion of mackerel, the dagaa stocks would soon be depleted as well. Therefore, a suggestion for future research is to follow up on this dagaa industry to see how it develops. Not least since the government aims to expand the dagaa industry. But certain aspects could be focused on more thoroughly, such as the top-down clash between the government and the local fishermen and how policies for the Blue Economy are set in practice. Here, I believe anthropology and ethnographic methods have much to contribute with. Moreover, it would be interesting, to follow other actors in the value chain such as boat owners, traders, and buyers.

Even if Blue Economy has been studied across the globe, I suggest further research on this to follow up on how these blue initiatives are shaped, both in Zanzibar and elsewhere in the world. It is necessary to remain attentive as initiatives claim to create wealth and transcend the limits of our resources. This includes other initiatives as well, insinuating that it could transcend the limitations of our world and create economic growth. Such as the green economy or whatever color prefix that may be put in front of words like "economy," "growth," or "industry."

9. References

- Ashton, R. A., Bennett, A., Al-Mafazy, A. W., Abass, A. K., Msellem, M. I., McElroy, Bhattarai, A. 2019. "Use of routine health information system data to evaluate impact of malaria control interventions in Zanzibar, Tanzania from 2000 to 2015." *EClinicalMedicine*, 12, 11-19.
- Aswani, S., Lemahieu, A., & Sauer, W. H. 2018. "Global trends of local ecological knowledge and future implications." *PLoS One*, *13*(4), e0195440.
- Barbesgaard, M. 2018. "Blue growth: savior or ocean grabbing?." *The Journal of Peasant Studies*, 45(1), 130-149.
- Benjaminsen, T. A., & Bryceson, I. 2012. "Conservation, green/blue grabbing and accumulation by dispossession in Tanzania." *Journal of Peasant Studies*, *39*(2), 335-355.
- Bennett, N. J., Govan, H., & Satterfield, T. 2015. Ocean grabbing. Marine Policy, 57, 61-68.
- Cajas, Juan & Pérez-Hernández, Yolinliztli. (2017). "Anthropologists, Economic Retribution and Informants: Notes About Ethics in Social Research." *Agathos.* 8. 143-154.
- Campling, L., & Havice, E. 2014. "The problem of property in industrial fisheries." *The Journal of Peasant Studies*, 41(5), 707-727.
- Clausen, R., & Clark, B. 2005. The metabolic rift and marine ecology: An analysis of the ocean crisis within capitalist production. *Organization & environment*, 18(4), 422-444.
- De la Torre-Castro M. 2006. "Beyond Regulations in Fisheries Management: The Dilemmas "Beach Recorders" *Bwana Dikos* in Zanzibar, Tanzania." *Ecology and Society* 11(2):35.
- Derks, A. 2010. "Migrant Labour and the Politics of Immobilisation: Cambodian Fishermen in Thailand." Asian Journal of Social Science 38 (6): 915–932.
- Despres, A. 2021. "The arrival of white women: Tourism and the reshaping of beach boys' masculinity in Zanzibar." *Ethnography*, 14661381211002548.
- Diver, S. Vaughan, M. Baker-Médard, M, Lukacs, H. 2019. "Recognizing 'Reciprocal Relations' to Restore Community Access to Land and Water." *International Journal of the Commons* 13 (1): 400–429.
- Doerr, F. 2016. "Blue growth and ocean grabbing: A historical materialist perspective on fisheries in East Africa." *An international colloquium Global governance/politics, climate justice & agrarian/social justice: linkages and challenges. Colloquium Paper* Vol. 18.
- Eriksen, T H. 2016. Overheating: An Anthropology of Accelerated Change. Pluto Press.
- Fabiani, G., Chauka, L. J., & Muhando, C. A. 2022. "Population Characteristics of Selected Small Pelagic Fish Species along the Tanzanian Coast." *Tanzania Journal of Science*, 48(3), 585-595.
- Ferguson, J. (2006). Global shadows: Africa in the neoliberal world order. Duke University Press.

- Fontein, J. 2013. "Fieldwork practicalities" In *Doing anthropological research: a practical guide*. Konopinski, Natalie, ed. London: Routledge
- Foster, J. B. (1999). "Marx's theory of metabolic rift: Classical foundations for environmental sociology." *American journal of sociology*, *105*(2), 366-405.
- Fujimoto, M. (2015). "Structure of the Dagaa Industry in Zanzibar, Tanzania:: Economic Activities among the Several Actors Linking Production and Consumption Areas." *Journal of African Studies*, 2015, 37-49.
- Fujimoto, M. (2018). "Economic impact of the dagaa processing industry on a coastal village in Zanzibar, Tanzania." *African Study Monographs. Supplementary Issue*, (55), 145-162.
- Gibson, James J. 1979. The ecological approach to visual perception. London: Houghton Mifflin.
- Gómez-Baggethun, E., Corbera, E. & Reyes-García V. 2013. "Traditional ecological knowledge and global environmental change: research find- ings and policy implications." *Ecol. Soc.* 18.
- Graeber, D. 2011. Debt: The first five thousand years. Penguin UK
- Hage, G. 2003. Against Paranoid Nationalism. Searching for Hope in a Shrinking Society. Annandale: Pluto Press.
- Hardin, G. 1968. "The Tragedy of the Commons." Science 162 (3859): 1243-1248.
- Helmreich, S. 2011. "Nature/Culture/Seawater." American Anthropologist 113 (1): 132–144.
- Hickel, J. 2020. Less is more: How degrowth will save the world. Random House.
- Hornborg, A. 2009. "Zero-sum world: challenges in conceptualizing environmental load displacement and ecologically unequal exchange in the world-system." *International journal of comparative sociology*, 50(3-4), 237-262.
- Howard, P. M. 2012. "Workplace Cosmopolitanization and 'The Power and Pain of Class Relations' at Sea." *Focaal* (62): 55–69.
- Howard, P. M. 2017. Environment, Labor and Capitalism at Sea: 'Working the Ground' in Scotland. Manchester, UK: University of Manchester Press.
- Howard, P. M. 2018. "The anthropology of human-environment relations: Materialism with and without Marxism". *Focaal*, 2018(82), 64-79.
- Hickel, J. 2020. Less is more: How degrowth will save the world. Random House.
- Ingold, T. 2000. *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*. London: Routledge.
- International Monetary Fund (IMF). 2009. *Tanzania: the story of an African transition/African* Washington, D.C.
- Ingold, T. 2013. "Anthropology Beyond Humanity", Suomen Anthropology: Journal of the Finnish Anthropological Society, 38(3):5-23.

- IPCC. 2022. Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. Cambridge University Press, Cambridge, UK and New York, NY, USA, 3056 pp.
- Jentoft, S. (2000). "The community: a missing link of fisheries management." *Marine policy*, 24(1), 53-60.
- Kamat, V. R. 2014. "The Ocean is our Farm": Marine Conservation, Food Insecurity, and Social Suffering in Southeastern Tanzania." *Human Organization*, 73(3).
- Kamat. V.R. 2019. "Dynamite Fishing in a Marine Protected Area in Tanzania: Why Youth Perceptions Matter." *Coastal Management* 47:4, 387-405.
- Kamukuru, A. T., Mahongo, S. B., Sekadende, B. C., & Sululu, J. S. 2020. "Age, growth and mortality of the anchovy Stolephorus commersonnii (Lacepède, 1803)(Clupeiformes) caught off the coast of Tanga, Tanzania." *Western Indian Ocean Journal of Marine Science*, (1/2020), 95-104.
- Katikiro, R. E., & Mahenge, J. 2022. "Small pelagic marine fisheries for food sovereignty? The case of the dagaa fishery at three coastal sites in Tanzania." Western Indian Ocean Journal of Marine Science, (1/2022), 119-134.
- Kaur, R and Victoria Lovisa Klinkert. (2021). "Decolonising ethnographies." *HAU: Journal of Ethnographic Theory* 11 (1): 246–255.
- Keshodkar, A. (2022). "Indian Ocean trade and emerging pathways of mobility in neoliberal Zanzibar." *The Journal of Indian Ocean World Studies*, 6(1), 38-64.
- Keshodkar, A. 2013. *Tourism and social change in post-socialist Zanzibar: Struggles for identity, movement, and civilization*. Lexington Books.
- Knott, C., & Neis, B. 2017. "Privatization, financialization and ocean grabbing in New Brunswick herring fisheries and salmon aquaculture." *Marine Policy*, 80, 10-18.
- Lal, B. V., & Fortune, K. (Eds.). (2000). *The Pacific islands: an encyclopedia* (Vol. 1). University of Hawaii Press.
- Landguiden. 2022. "Tanzania Ekonomisk Översikt." *Landguiden*, 22 July. Available at: https://www-ui-se.ezp.sub.su.se/landguiden/lander-och-omraden/afrika/tanzania/oversikt/ (Accessed 2023-05-16).

- Lee, Jo and Tim Ingold. (2006). "Fieldwork on Foot: Perceiving, Routing, Socializing" *Locating the Field: Space, Place and Context in Anthropology*. Coleman, Simon and Peter Collins (eds) Oxford/New York: Berg.
- Lemahieu, A, Scott, L., Malherbe, W., Tsimanaoraty Mahatante, P., Randrianarimanana P. & Aswani, S. 2018. "Local perceptions of environmental changes in fishing communities of southwest Madagascar" *Ocean & Coastal Management*, Volume 163.
- Magdoff, F., & Foster, J. B. (2011). What every environmentalist needs to know about capitalism: A citizen's guide to capitalism and the environment. NYU Press.
- Makame, O & Salum, A. 2021. "Vulnerability of Fishing and Fisheries Sector to Climate Change and Non-climate Risks as Perceived by Fishermen in Zanzibar Coastal Villages." Carnets de Recherches de l'océan Indien, Université de La Réunion, Mutations et transitions dans l'océan Indien, pp.165-183.
- Marcus, G. 1995. Ethnography in/of the World System: The Emergence of Multi-Sited Ethnography. Annual Review of Anthropology, 24, pp. 95-117.
- Malm, A & Esmailian, S. 2012. "Doubly dispossessed by accumulation: Egyptian fishing communities between enclosed lakes and a rising sea". Review of African Political Economy. Vol. 39, No. 133 (September 2012), pp. 408-426
- McCormack, F, & Forde, J. 2020. Fishing. In Oxford Research Encyclopedia of Anthropology.
- Mkumbukwa, A. R. 2017. The history of use and conservation of marine resources in Zanzibar: nineteenth century to the present. Universitaet Bayreuth (Germany).
- Moshy, V. Bryceson I & Mwaipopo, R. 2015. "Social-ecological Changes, Livelihoods and Resilience Among Fishing Communities in Mafia Island Marine Park, Tanzania" *Forum for Development Studies*, 42:3, 529-553
- Mwaipopo, R. 2017. "Tanzania: labour, fraught with danger". Samudra Report. Vol. 77
- Mwaipopo, R., & Mahongo, S. B. 2020. "Adaptive capacity of small pelagic fishing communities in coastal Tanga (Tanzania) to changes in climate-related phenomena." *Western Indian Ocean Journal of Marine Science*, (1/2020), 127-144.
- Nair, G. (2022). Beyond Morality: "The Moral Economy Framework and the Fisheries in Mumbai." *Journal of South Asian Development*, 17(2), 210-229.
- Nassir, M. N., Abdallah, Z. M., & Hafidh, H. A. (2022). "Insight into the Utilization of the Blue Sources of Funds in Fisheries Investment as a Key Sector in Blue Economy in Zanzibar." *Asian Journal of Fisheries and Aquatic Research*, 17(2), 49-55.
- Nassor, A. S., & Jose, J. 2014. "Power-sharing in Zanzibar: from zero-sum politics to democratic consensus?." *Journal of Southern African Studies*, 40(2), 247-265.

- Nayak, S., & Luke, M. 2022. "Understanding Metabolic Rift through Assemblage of Land and Intersectional." *Politics*, *18*(7), 1277-1297.
- Nightingale, A. 2012. "The Embodiment of Nature: Fishing, Emotion, and the Politics of Environmental Values". *Human-Environmental Relations*.
- O'Neill, E. D., & Crona, B. (2017). "Assistance networks in seafood trade—a means to assess benefit distribution in small-scale fisheries." *Marine Policy*, 78, 196-205.
- Ortner, S. B. 2016. "Dark anthropology and its others: Theory since the eighties". Hau: *Journal of Ethnographic Theory* 6 (1): 47–73.
- Owere, P. 2022. "Zanzibar starts to reap early fruits of blue economy drive." *The Citizen*, 7 December. Available at: www.thecitizen.co.tz/tanzania/zanzibar-starts-to-reap-early-fruits-of-blue-economy-drive-4046456 (Accessed 2023-06-01)
- Pálsson, G. 1989. "The art of fishing." *Maritime Anthropological Studies*. Krips Repro, Meppel, The Netherlands.
- Pálsson, G. 1994. "Enskilment at sea." *Man*, 901-927.

 Pink, S. 2015. *Doing Sensory Ethnography*. 2nd ed. London: Sage Publication Ltd.
- Raycraft, J. 2018. "Dilemmas of Representation in Contemporary Environmental Anthropology: Documenting Dynamite Fishing in Southeastern Tanzania." *Ethnobiology Letters* Vol. 9, No. 2 pp. 289-298
- Raycraft, J. 2019. Conserving poverty: Destructive fishing gear use in a Tanzanian marine protected area. *Conservation & Society*, *17*(3), 297-309.
- Reeves, P., & Klein, K. 1995. "Republic in transition: 1995 elections in Tanzania and Zanzibar." *IFES*.
- Rehren, J., Samoilys, M., Reuter, H., Jiddawi, N., & Wolff, M. 2022. "Integrating resource perception, ecological surveys, and fisheries statistics: A review of the fisheries in Zanzibar." *Reviews in Fisheries Science & Aquaculture*, 30(1), 1-18.
- Revolutionary Government of Zanzibar (RGoZ). 2020. "Zanzibar Blue Economy Policy." *Zanzibar Planning Commission*.
- Richmond, M. 2011. A field guide to the seashores of Eastern Africa and the Western Indian Ocean Islands. Sida/WIOMSA.
- Roszko, E. 2021. Maritime anthropology. In L. Pedersen, & L. Cliggett The SAGE handbook of cultural anthropology (pp. 311-329). SAGE Publications Ltd.
- Sekadende, B., Scott, L., Anderson, J., Aswani, S., Francis, J., Jacobs, Z., Jerri, F., Jiddawi, J., Kamukuru, A.T., Kelly, S., Kizenga, H., Kuguru, B., Kyewalyanga, M., Noyon, M., Nyandwi, N., Painter, S. C., Palmer, M., Ratios, D. E., Roberts, M., Sally, S.F., Samoilys, M., Sauer,

- W.H.H., Shayo, S., Shaghude, Y., Taylor, S.F.W., Wihsgott, J. & Popova, E. (2020). The small pelagic fishery of the Pemba Channel, Tanzania: What we know and what we need to know for management under climate change. *Ocean & Coastal Management*, 197, 105322.
- Shalli, M. 2017. "The Role of Local Taboos in the Management of Marine Fisheries Resources in Tanzania," *Marine Policy* 85.
- Sheriff, A. (2010). *Dhow cultures of the Indian Ocean: Cosmopolitanism, commerce and Islam* (p. 218). London: Hurst.
- Sholock, A. (2012). Methodology of the Privileged: White Anti-racist Feminism, Systematic Ignorance, and Epistemic Uncertainty. *Hypatia*, 27(4), 701-714. doi:10.1111/j.1527-2001.2012.01275.x
- Srinivasan, U. T., Cheung, W. W., Watson, R., & Sumaila, U. R. 2010. Food security implications of global marine catch losses due to overfishing. *Journal of Bioeconomics*, *12*, 183-200.
- Stoller, P. 1997. Sensuous Scholarship. University of Pennsylvania Press: Philadelphia. van Ede, Y. 2009. Sensuous Anthropology: Sense and Sensibility and the Rehabilitation of Skill. Anthropological Notebooks 15 (2): 61-75.
- Tobisson, E., Andersson, J., Ngazi, Z., Rydberg, L. & Cederlof, U. 1998. "Tides, Monsoons and Seabed: Local Knowledge and Practice in Chwaka Bay, Zanzibar." *AMBIO* -
- STOCKHOLM-, January 1.
- Tobisson, E. 2013. "Consequences and Challenges of Tourism and Seaweed Farming: A Narrative on a Coastal Community in Zanzibar." *Western Indian Ocean Journal of Marine Science* 12 (2): 169–84.
- Trawick, P. & Hornborg, A. 2015. Revisiting the Image of Limited Good: On Sustainability, Thermodynamics, and the Illusion of Creating Wealth. *Current Anthropology*, *56*, *(1)*, 1 27. Uimonen, P. (2013). *Digital drama: Teaching and learning art and media in Tanzania*. Routledge.
- UNEP-Nairobi Convention & WIOMSA. (2021). Western Indian Ocean Marine Protected Areas Outlook: Towards achievement of the Global Biodiversity Framework Targets. UNEP and WIOMSA, Nairobi, Kenya, 298 pp.
- Walley, C. 2004. Rough Waters: Nature and Development in an East African Marine Park. Princeton: Princeton University Press.
- World Bank. 2022. *Blue Economy For Resilient Africa Program*. World Bank Group. Washington Zanzibar Investment Promotion Authority (ZIPA). 2021. *Blue Economy*. Available at: https://www.zipa.go.tz/sectors/blue-economy/ (accessed 2023-06-01).