11. Uneven coastal geographies

Sea level rise and contested urban future-making in Bangkok

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> In the future […] there will remain vast spaces, but deserted, little inhabited.
> *(Lefebvre, 2000: 208)*

It is clear today that sea level rise will have a massive impact in the coming decades, especially on coastal cities. How urban futures will look in many parts of the world significantly depends on sea level. When considering the fatal effects of sea level rise, however, it is crucial to acknowledge that sea level rise does not affect humanity equally. Sea level rise affects all parts of the world, but unevenly, a fact which becomes particularly manifest in the urban realm. This paper focuses on water as a political vehicle for framing and shaping the contested urban futures in and around sinking cities. Taking Bangkok, Thailand, as a case study, the paper traces the multilayered challenges and potentials posed by spatial transformation in the wake of urban sea level rise. While the rising sea level itself can be considered a 'natural line' along which contested urban futures are made, I will stress how the will to (not) protect certain environments from the water politicizes sea level rise in an utterly conflictual way. Territorial borders and distinctions between centre and periphery or city and hinterland gain crucial importance with regard to urban sea level rise, as they allow us to pose the existential question of who and what is deemed worthy of having a future. Given the existence of differential vulnerabilities between the city of Bangkok and its surrounding coastal areas, I will focus on the uneven geographies of sea level rise that are shaped along administrative borders, thereby (re)producing what I refer to as 'extended disaster urbanization'. By ex-

ternalizing the disaster to Bangkok's outskirts, the city can be prevented from sinking. From this, I conclude that there is a possibility that already existing urban inequalities are exacerbated by the permanent flooding of urban spaces and that water levels will increasingly become a demarcation line showing who can still afford to live in a given area and whose homes, workplaces, and daily lives have no future. Yet, there is also potential in this profound transformation of urban space. Sinking cities, and their urban societies, demand new ways of thinking through and practicing the (built) environment as a space without borders and urge us to reconsider the right to urban life.

Last lines of defence

Arriving by car from Bangkok, visitors encounter a barrier when trying to enter Ban Khun Samut Chin. The road ends here. The path to the community centre leads along a narrow wooden walkway surrounded by water. The fact that there used to be land here is hardly traceable anymore. Only a roof protruding from the water indicates that the water has not been here forever. When I arrived for the first time in the community in September 2022, together with my research assistant and a friend of hers,[1] we met a shrimp farmer who had lived there all his life. He told us that he had already moved four times because the sea had washed away his house. Now making our way through the settlement towards the coast, we notice plenty of ruins and traces of decay (Figure 1). The community once had over 600 members. Today there are just under 100, most of whom are shrimp farmers. For them, it is possible to convert the freshly flooded areas into farms. At least until the sea level rises so high that the basins are permanently underwater.

1 I would like to express my sincere gratitude to Kittima Leeruttanawisut, who, as a research assistant, supported me in this study, and Kannika Janchidfa for joining us during the trip to Ban Khun Samut Chin. I would also like to thank Danny Marks and Eli Elinoff, who helped me access the field.

Figure 1: Abandoned houses in Ban Khun Samut Chin.

Source: Author.

On our way, we stop by the local school to meet the teacher in an open common room. We learn that there are four schoolchildren left in the community. There used to be over 50. The school has six classrooms, most of which are no longer in use. The teacher tells us that she doesn't know how long the school will remain open because there are no new children born in or moving to the community. Also, the school building is dilapidated due to regular flooding, and there is neither money nor support to repair the building.

The further we walk towards the coastline, the more waste surrounds us. Mountains of plastic, glass, metal, technical waste, and organic materials such as food scraps and fishing residue pile up at the edge of the path: a dense jungle of debris with no clear origin, much of it washed ashore over the years (Figure 2). Without the elevated concrete path that someone built to get through here even during floods, it hardly would have been possible to go any further. When we finally reach the shore, we see a number of electricity pylons jutting out into the water, indicating that roads once ran along them (Figure 3). At the edge of the water stands a large Buddha statue looking out to sea with its hands raised to stop the water from getting any further.

Figure 2: Waste along the footpath in Ban Khun Samut Chin.

Source: Author.

Figure 3: Submerged electricity pylons in Ban Khun Samut Chin.

Source: Author.

The fishing community Ban Khun Samut Chin is located in Samut Prakan, one of the six provinces in the Bangkok Metropolitan Region, and is located at the mouth of the Chao Phraya River in the Gulf of Thailand on the southern outskirts of Bangkok. Ban Khun Samut Chin is one of the 'last lines of defence' protecting the capital city from permanent flooding, as political scientist Naim Laeni put it (interview, 18 September 2022 in Bangkok). The fishing settlement has been seriously struggling with coastal erosion and rising sea levels for years, with the result that large parts of the community are already permanently underwater.

Uneven geographies of urban sea level rise

Sea level rise gives rise to a powerful future-oriented imagination and materializes via a series of environmental, institutional, economic, and behavioural effects (Arnall and Hilson, 2023). Moderate projections indicate a global sea level rise of half a metre by the end of the century, largely due to the thermal expansion of seawater resulting from ocean warming and the influx of water from melting glaciers, particularly from Greenland and Antarctica (Lindsey, 2022). Some calculations suggest that the future average sea level could rise by two metres by 2100 if increases in carbon dioxide levels follow current trends (Bamber et al., 2019). With regard to the impact of sea level rise on human life, cities are of particular importance. Nearly 75% of cities worldwide are located in coastal areas. Studies show that larger cities tend to be concentrated in low-lying coastal areas and that about 65% of cities with more than 5 million inhabitants are located in these areas, most of them in East and Southeast Asian countries such as China, Bangladesh, India, Vietnam, Indonesia, Thailand, the Philippines, and Japan (Kulp and Strauss, 2019). Current projections indicate that even under a moderate future scenario, projected sea levels will rise by the year 2050 to the point where the households of about 150 million people worldwide could be permanently flooded (ibid.). In the case of Antarctic instability, by 2050, some 300 million people would live in areas considered at risk for an annual flood event. Furthermore, it is estimated that the average annual cost of global flood damage will increase from the equivalent of €5 billion in 2005 to €48 billion in 2050 (Hallegatte et al., 2013), and it has been highlighted that several UNESCO World Heritage sites would be severely damaged or even completely destroyed by the year 2100 if sea level rise remains unchallenged (Reimann et al., 2018). As oceanographer John Englander (2021:

xix) points out, 'while dramatic sea level rise (SLR) seems scary, and may be impossible to imagine, the process is underway and is unstoppable in this century.'

Therefore, it would be wrong to assume that sea level rise is only a future threat. Indeed, sea level rise is often considered a devastating forecast of unimaginable scale, closely linked to the current apocalyptic zeitgeist (Swyngedouw, 2010; Pohl, 2021; Kowalewski, 2023). More precisely, however, sea level rise is not a forecast, but a constancy that has been part of the world for over a century. 'The water will come', as journalist Jeff Goodell (2017) describes the catastrophic future scenario of sea level rise, is therefore not quite right – after all, the water is already coming, just not yet to the places we usually find in Hollywood blockbusters and science fiction novels envisioning the climate catastrophe. Yes, the water *will* come to cities such as Miami, New York, and London in the future, but it *has already* reached other cities such as Jakarta and Bangkok.[2] Due to the highly unsustainable production relations in fossil-fuel-based societies and the unevenly distributed damage they cause elsewhere, sea level rise can therefore be mapped onto similar patterns of inequality that also impact other socioecological relations. These inequalities are marked by socioecological dynamics of 'externalization' (Lessenich, 2019) that have shaped inequalities between the Global North and South for centuries and are structured along intersectional forms of marginalization and discrimination: The ways in which sea level rise affects social actors at various scales are thus also shaped along interconnected lines of social difference, including gender, race, and class, that co-constitutively shape social experiences of climate change in complex and shifting ways (Garcia and Tschakert, 2022).

When following the conflicts that arise around the uneven impacts of sea level rise, borders play a central role. Along borders and demarcations, whether they be social, economic, administrative, territorial, racist, or of another kind, we can trace the powerful dynamics that sea level has on some parts of the population (and not others). Borders are the result of contingent acts of boundary-drawing, facilitated both by official state agencies and by other ideological apparatuses (Giudice and Giubilaro, 2015). From the standpoint of critical geopolitics, political geography, and border studies, there are no unquestionable or 'natural' borders, as all borders are, in a sense, political (Fall, 2010; Jones and

2 Due to my focus on the urban dimension of sea level rise, I do not refer to the various island and atoll states, such as Kiribati, the Marshall Islands, Tuvalu, and the Maldives, which were some of the first that faced the existential crisis of sea level rise.

Johnson, 2014). There is a broad common understanding in politics and the media today that borders have gained new importance in times of climate change (White, 2011). With the prospect of an increase in uninhabitable environmental conditions worldwide, climate change is considered the trigger for new waves of mass migration, particularly from the Global South to North, thereby leading to a renegotiation of territorial borders (Baldwin, 2014), security politics (Boas, 2015), and apocalyptic fears of racialized 'Others' (Bettini, 2013). In this paper, I want to shift from the global level of imagining climate futures to the local everyday level of future-making. In the following, I want to show how everyday future-making in confrontation with rising sea levels takes place along conflicts that are governed through borders.

I therefore emphasize that the power dynamics that maintain and (re)produce prevailing lines of inequality and unjust socioecological conditions have a particular urban geography. Not only are cities the main drivers of both economic wealth and the climate crisis, but they are also 'places where uneven vulnerabilities and inequalities related to climate change are produced and reproduced' (Rice et al., 2023: 1). Environmental vulnerability in cities is already radically uneven with regard to one's chances of surviving isolated events such as a hurricane or typhoon. These uneven vulnerabilities are a crucial aspect of what David Madden (2021) has termed 'disaster urbanization', i.e. the contested and contradictory processes of shaping urban spaces in anticipation of, during, and as a result of disasters. When it comes to the permanent flooding of urban space, this uneven vulnerability stands out even more prominently.

It makes little sense to talk about urban sea level rise without considering that not every part of the city contributes to issues such as carbon emissions to the same degree. In major cities such as Bangkok, out of hundreds of thousands or even a million buildings, only a very few – mainly skyscrapers, luxury apartments, and commercial buildings – consume the majority of the city's total energy. Similarly, one can only properly address urban sea level rise when taking into account how social inequality renders particular parts of the urban population more vulnerable than others. Efforts to challenge environmental injustice in sinking cities even hinge on the most basic questions of survival: Who has the right to stay in their homes, to keep their jobs and everyday lives, when the water comes? It is against this background that Ashley Dawson (2019: 6) speaks of inequality as not only 'the defining urban characteristic of our time' but also as 'one of the greatest threats to the sustainability of urban existence', and that Kian Goh (2021: 3) states, 'in the face of climate change and uneven ur-

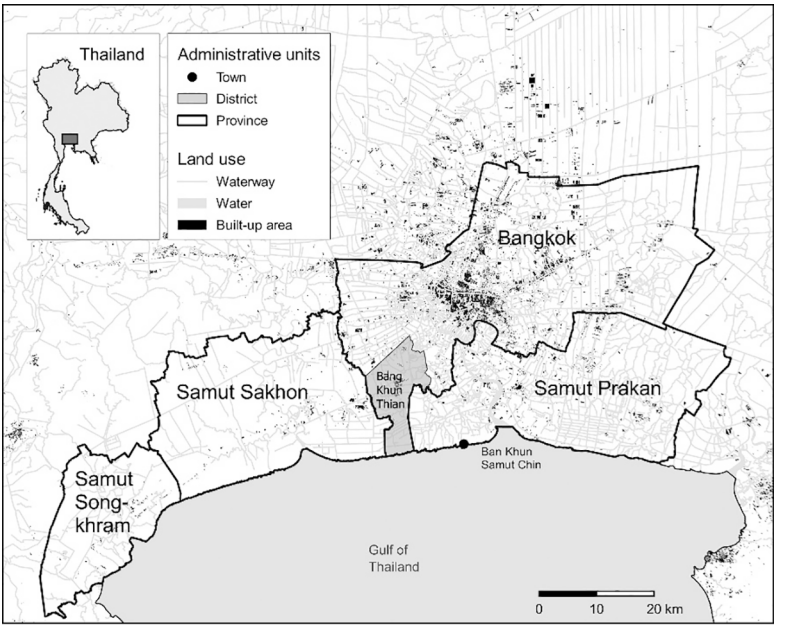
ban development,' it is crucial to ask 'how contesting visions of urban futures are produced and how they attain power'.

Bangkok, a drowning city?

Bangkok was recently listed as the number one city in Asia when it comes to the impact of sea level rise on GDP, population, and area within the city (Wang and Kim, 2021). In recent years, media headlines have repeatedly declared that Bangkok is under existential 'threat from sea level rise' (Blair, 2023), that the city is 'sinking' (Rujivanarom, 2023), and will probably be 'underwater by 2050' (Lu and Flavelle, 2019). Bangkok is located in the large Chao Phraya Delta and has an average elevation of 1.5 metres above sea level. Deltas form at the mouths of rivers, where sediment carried by the river is deposited as it meets a standing body of water, typically an ocean or sea. These regions are often characterized by a network of river courses, swamps, and soft sediment deposits. In addition, they are often low-lying and, due to their proximity to the sea, are particularly exposed to sea level rise and have a high potential for flooding and erosion. Next to overfishing and marine pollution, coastal erosion is a particularly influential factor when it comes to why 'coastal regions are increasingly threatened, destroyed, or degraded by human behaviour' (Bercht et al., 2021: 307). In the case of Bangkok, erosion acts as an accelerator of sea level rise (Marks et al., 2023), making the land even more vulnerable to seawater. The stronger the erosion, the faster the land is eroded, and the higher the sea level, the more the waves push further inland.

The coastal areas surrounding Bangkok are divided into the three provinces: Samut Sakhon, Samut Songkhram, and Samut Prakan (in which the fishing community Ban Khun Samut Chin, mentioned in the introduction, is located). While most of the coastline, around 100 kilometres in total, belongs to these independent provinces, a small area named Bang Khun Thian, with a coastline of around 5 kilometres, connects the city with the Gulf of Thailand (see Figure 4). Bang Khun Thian is the only district on the coastline that is officially counted as part of the city, which creates a difficult administrative situation when it comes to the coastal politics in the metropolitan region (as I will further emphasize below).

Figure 4: Administrative borders of the Bangkok Metropolitan Region.



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While Bangkok is already at risk of sea level rise due to its location in the Chao Phraya Delta, there are other factors that are exacerbating this process. One of these factors is land subsidence. Due to rapid urbanization, uncontrolled groundwater extraction, and the sheer weight of the city's built environment, Bangkok has a sinking rate of 1 centimetre per year. This phenomenon is exacerbated by the geological characteristics of Bangkok being built on soft clay and alluvial deposits. Understanding this complex interplay between anthropogenic activities and geological factors, and the implications this has for urban vulnerability to flooding and sea level rise, is paramount. After more than five decades since identification of the issue, land subsidence is associated with a multitude of problem framings, monitoring, and policy-making (Bremard, 2022). While the average subsidence rate in inner Bangkok has successfully been reduced due to new laws and regulations, its outer districts tell a different story (as further elaborated in the next section). Moreover, even though the city

now has an extensive network of drainage canals, pumping stations, retention areas, and floodwalls, these measures are not sufficient to protect the growing population and rapidly developing built environment of Bangkok from sinking (Tebakari, 2020).

In 2011, Bangkok experienced the worst flooding in its history and faced a major crisis due to the combined effects of flooding and storm surges together with the government's badly coordinated flood risk management and disaster response (Komori et al., 2012; Marks, 2019; Tuitjer, 2023). After months of persistent rainfall and the release of water from two of the main dams in Northern Thailand, a significant surge of water reached the capital in October. As an immediate response, the local government initiated a series of defence measures to protect the city's central districts. The Bangkok Metropolitan Administration implemented sandbag barriers, closed floodgates, and redirected water westward to shield the central regions of the city from flooding. However, as Danny Marks (2015) highlights, the protective measures enacted in the city centre came at a cost to outlying areas. The construction of these barriers and the closing of floodgates resulted in prolonged inundation of northern and western zones, adversely affecting their residents for weeks. Following the construction of a substantial sandbag barrier near an air force base at the border between Bangkok and the northern province Pathum Thani, the water level on the city side was almost 1 meter lower than outside the city boundaries (Marks, 2015: 643). The uneven protection of different parts of the population triggered public discontent, sparking demonstrations and uprisings, with local communities attempting to dismantle the barriers as a response to the perceived inequities in flood protection measures.

Even though sea level rise was not the main cause of the 2011 flooding, the event remains relevant for analysing Bangkok's disaster urbanization, also because it is most likely that the city will face more floods in the course of climate change and sea level rise, which is why that flood 'presages what could happen in the future' (Marks, 2020: 170). According to a recent study, more than 96% of Bangkok could be underwater during a heavy rainfall event already by 2030, including great parts of Bangkok's core central business district Silom/Sathorn as well as the new parliament house of Thailand (Wang and Kim, 2021). This forecast is in some ways even optimistic, as it overlooks the uneven ways in which urban space is governed in response to the climate catastrophe. No matter how high the water rises, it will certainly not simply flow into the city and destroy its economic 'heart'. It is more likely that the protection of certain parts of the city will again be ensured at the expense of other areas. 'Why

are some people left exposed while others take cover behind sea walls?' (Malm, 2013: 804) – this is the key question that a critical geography of urban sea level rise brings to the fore. As a border space, sea walls and other measures distinguish between the people and places that are worth defending and those exposed to catastrophe (whether or not the event occurs). Focusing on the 2011 floods, Marks (2015: 638) highlights that the spatial patterns of the defence infrastructures were uneven, 'protecting the inner city, the location of the palace, shopping malls, and government buildings, at the expense of the outer city'. A similar process of differentiation is taking shape on the horizon for Bangkok's urban future in the face of sea level rise, and as I will lay out in the following, the logic of uneven development is expanding even further from the city to the extended urban areas.

Contested future-(un)making in Bangkok's extended urbanization

While the vision of Bangkok as a drowning city seems devastating, a closer look at the outskirts of the city shows how the disaster is already, to a certain extent, part of today's reality. As landscape architect Kotchakorn Voraakhom put it: '[O]h my gosh, are we going to sink? […] I think we are already sinking right now. If you go to the south of Bangkok, the boundary of Bangkok already disappears from the paper' (interview, 22 October 2022 via online video). As such, Bangkok is a prime example of what I would refer to as 'extended disaster urbanization'. This term denotes an understanding of urbanity that is not limited to the city (as a unit, territory, etc.) but allows for a broader perspective of urban society, including its peripheral, suburban, peri-urban, and planetary relations (Monte-Mór, 2014; Keil, 2018; Schmid, 2019). Paraphrasing Christian Schmid (2019: 158), extended disaster urbanization therefore 'means decentering the focus of analysis, looking from an ex-centric position, one that looks from the periphery and asks where to find "the urban" [disaster]'. In a similar vein, if we look at sea level rise from an ex-centric position, by pointing to Bangkok's coastal peripheries, we can map out a contested field of urban future-(un)making.

I have already emphasized how the annual subsidence rate in the inner city of Bangkok has decreased in recent years due to the implementation of new drainage canals, pumping stations, and retention areas. However, what is neglected when referring to the 'successful reduction in the subsidence rate in inner Bangkok' (Bremard, 2022: 21) is the continued increase in subsidence

rates in the peri-urban spaces around Bangkok, where the rates are 2 to 4 times as high (Thalang 2015). Most of the region's large companies and factories with high groundwater usage are not located in the city centre, but within a radius of 5 to 20 kilometres outside it, in the surrounding provinces, where the legal framework and enforcement of regulations were less strict when these facilities were sited in the 1980s and 1990s (Marks et al., 2023: 265). These particularly low-lying areas are located in the immediate coastal area, in some cases not even 0.5 metres above sea level, and are characterized today by a mix of urban, industrial, and natural landscapes. Besides industrial uses, many parts of the coastal area are also used for shrimp farming and are predominantly populated by poor households.

As highlighted in the introduction by focusing on the case of Ban Khun Samut Chin, these coastal communities, in their shape and size, as well as in their entire everyday life, are permeated by sea water. How high the water rises is decisive to how and whether life goes on in these areas. In interviews I conducted in Bangkok with professionals from urban planning and politics, it was repeatedly suggested that places such as Ban Khun Samut Chin have no future. Somkiat Prajamwong, who advises the Thai prime minister as an expert on water, emphasized that the city can cope with losing an arm, but not its heart: 'You can cut your hand … but you have to keep your heart' (interview, 21 September 2022 in Bangkok). He thus alludes to a certain political willingness to make sacrifices with regard to climate change, accepting the loss of some outlying districts as long as the core city of Bangkok remains intact.

While sea level rise is still not part of the coastal plan of the Bangkok Metropolitan Administration (BMA), various organizations are working on proactive measures to address the issue of coastal erosion, with the Drainage and Sewerage Department in Bangkok leading the charge. A central debate here revolves around the implementation of 'grey' or 'green' coastal protection measures (Al, 2018; Gesing, 2021).[3] The BMA plans to build a barrier system at the mouth of the Chao Phraya River, comparable to the Thames Barrier in London, which aims to protect the inner city from flooding. Other ideas range from reclaiming new land in the Bay of Bangkok to plans for building a dam or sea wall. The BMA initiated a comprehensive barrier project in Bang Khun Thian, aimed at mitigating the threats posed by coastal erosion (Figure 5).

3 'Grey' infrastructures typically refer to human-made systems used for urban development and management, while 'green' infrastructures involve natural and semi-natural systems that provide environmental benefits and help manage urban environments.

Figure 5: Coastal protection measures in Bang Khun Thian.

Source: Author.

To garner community involvement, the BMA District Office in Bang Khun Thian has initiated a collaborative effort with citizens, entrepreneurs, and various organizations to support mangrove tree planting along the Bang Khun Thian coastline. Furthermore, between 2016 and 2023, the district installed bamboo lines along a 2.2-kilometre stretch to attenuate waves, leading to a notable expansion of the mangrove forest area. The accumulation of sediment behind the bamboo lines has resulted in an elevation of approximately 80 to 120 centimetres, effectively raising the ground level along bridges and walkways by 50 centimetres. By actively engaging with the community, listening to their concerns, and securing their cooperation, the Urban Planning and Development Office (URB) has furthermore proposed a land readjustment scheme, which includes the allocation and relinquishment of private land for the collective public good, along with the sale of some public land to fund the construction and maintenance of essential public utilities such as electricity, water, roads, infrastructure, and drainage.

While the recent measures undertaken in Bang Khun Thian demonstrate a political will to take the threat of coastal erosion and sea level rise into account by implementing different measures to experiment with a mix of solutions, the other parts of the coastline south of Bangkok do not follow the same procedure. The administrative fragmentation of the coastal area (see Figure 4) creates a peculiar situation in which different parts of the shoreline respond differently to

the challenges of sea level rise. The small part of Bang Khun Thian that belongs to Bangkok has undergone the greatest development in recent years and has installed a number of 'green' and 'grey' measures to prevent the water from taking even more of the land. The provinces that fall under the Ministry of Interior have not yet shown similar efforts to do something about the situation. While Marks et al. (2023: 267) rightly conclude that 'these differing lines of authority have made it difficult to coordinate regional- or national-level responses to erosion in the three provinces', one can state that they also prevent a coordinated response to sea level rise. Bangkok's coastline appears as a set of 'disjunct fragments' (Lefebvre, 2003: 14). As such, each politically separate unit has to cope with the rising presence of seawater. While in one fragment resources and possibilities are mobilized to protect the land and its inhabitants from the seawater, other fragments remain relatively defenceless against it. When dealing with inherently transboundary processes such as sea level rise, it becomes clear how powerfully borders shape living conditions under climate change and, at the same time, how truly effective climate politics cannot be limited to and by these borders (Sammler, 2020). Protecting Bangkok only along the areas that officially count as part of the city will not stop the water from making its way through the other provinces into the city. Only a politics and planning 'without' borders could keep the water at bay.

The process of disaster urbanization is thus not limited to the space of the city but also, and even more prominently, shapes the conditions in those areas that may initially seem detached from it. In a similar vein, scholars working on extended or planetary urbanization have highlighted that urbanized centres are not isolated from the periphery, as the centres often earn their prosperity, wealth, and power at the cost of these surrounding areas (Bartels et al., 2020). A classic example in this context would be how the innovative economies and technological advantages that drive many social and cultural activities in core urban areas, including IT networks, smart infrastructures, eco-architecture, and the like, depend upon the extraction of minerals like coltan from some of the most socioecologically vulnerable locations on earth (Arboleda, 2020); or how most of the urban economies in the Global North rely on production chains influenced by increasingly uneven socioecological conditions and recycling processes that redirect most electronic waste back to the socioecologically dystopian landscapes of informal suburban wastelands in cities like Mumbai or Dhaka (Swyngedouw and Kaika, 2014: 463).

Something similar happens regarding the distinction of centre and periphery within the Bangkok Metropolitan Region. Here, too, the prosperity

and security in the urban centre are based on the distress and destitution in the coastal peripheries. And yet, without the 'defence lines', which ensure that floodwater does not reach the city centre, Bangkok probably would have already been submerged. Due to this extended disaster urbanization, however, decision-makers have still not considered taking more drastic action to defend the whole coastline. Amidst these uneven geographies that shape Bangkok's future-making, it almost seems as if measures are being tested along the small section of Bang Khun Thian so that at a later date, when the water gets closer to the 'heart' of the city, knowledge and expertise will be there to protect it. Meanwhile, in the coastal provinces, more and more land will be left to the water. As in the case of the 2011 floods, it is therefore once again a question of who has the right to be protected from flooding and is therefore counted as part of the city.

When the excluded local communities fought in 2011 against the uneven measures to keep the city centre dry, they adopted the slogan 'We are quality citizens in Bangkok' (Marks, 2020: 171). They demanded an equal right to be recognized by the local government as residents of the city. Now, when engaging with sea level rise, we might formulate the same slogan. Here, too, the question arises as to who has the right to count as a Bangkok citizen and who is not considered one. Again, it is the right to be treated fairly and equally that is at stake here. The 'right to urban life' (Lefebvre, 2009: 194) – more than the notoriously often proclaimed 'right to the city' – therefore takes on a truly existential significance in the context of rising sea levels. People without a right to (peri)urban life not only lose their right to live and participate in a place, but also lose these places as such, including their place-based experiences, everyday lives, memories, histories, and their 'sense of place' more broadly.

Against this background, it seems unlikely that Bangkok will sink. The city will not perish due to rising seas. It seems more realistic that enclaves will form along the existing lines of social inequality and intersectional discrimination, which will persist regardless of the water level, while the rest of the urban area, especially areas that are already temporarily at risk during strong and seasonal floods today, could be permanently underwater in the future. For the coastal peripheries, such as the community Ban Khun Samut Chin, the future currently remains uncertain in the certainty of further deteriorating socioecological conditions. This testifies to the fact that the socioecological catastrophe posed by sea level rise is not only a semi-distant promise but an 'uneven and combined' catastrophe (Calder Williams, 2011; Malm, 2013) in the present, and that it is already shaping life in the marginalized interstices of the

uneven socioecological geographies produced by capitalist forms of extended disaster urbanization.

Imagining a future of sea level rise without sacrifice zones[4]

Processes such as sea level rise are accompanied by a radical re- and devaluation of space. Places with a certain social value, be it economic, symbolic, cultural or political, are defended from potential damage and dangers, while places that have no such value for the city and society are sacrificed to the water. The latter become waste spaces, spaces of ruination and decay, of dying and surviving. From this conflictual relationship, we can learn something about the power relations that shape coastlines in times of climate change. John Englander (2021: 6) states that 'the shoreline is the most important line in the world, separating valuable real estate from that which is underwater'. If one follows this hypothesis, the coastline should be given top priority when it comes to shaping the futures of society and, more specifically, urban futures. It takes an approach that allows us to trace the multilayered challenges and potentials posed by spatial transformation in the wake of urban sea level rise (Frost and Miller, 2021). In terms of challenges, there is a possibility that already existing urban inequalities will be exacerbated by the permanent flooding of urbanized areas. Sea level rise will most likely lead to massive displacement, especially among the poor parts of urban society. However, sea level rise not only displaces residents but also the places themselves; it not only destroys communities, neighbourhoods, districts, etc. but also makes any future community, neighbourhood or district in a place impossible. It is in this sense that sea level rise creates potentially impossible geographies (Pohl, 2024).

Sea level rise allows us to face how urban futures can take shape at the expense of a lack of (urban) futures elsewhere. It therefore poses the question of *which* people and places are to be protected and *which* people and places are to be abandoned (Fincher et al., 2015), and, as with other types of disaster urbanization, the logic of protecting vulnerable populations in one place can directly collide with the logic of protecting valuable spaces elsewhere (Madden, 2021). The uneven geographies of sea level rise open up a conflictual terrain around

4 The title for this conclusion is inspired by the title of a keynote Naomi Klein gave at the Othering & Belonging Conference that was held in 2015 in Oakland, California.

which urban futures are negotiated. Whenever we look at technological and institutional advances that aim to secure an urban future in one place, we should, therefore, ask whether another (urban) future is being threatened by or even sacrificed for this future. As climate-colonial perspectives emphasize, 'Some lives and ecosystems are rendered disposable and sacrificial, whereby structural forces, both historical and contemporary, fuel […] the racial logic of climate tragedies and cumulative impacts' (Sultana, 2022: 4). In similar terms, urban future-making in times of sea level rise is based on rapacious displacement, destruction, and excessive exposures to harms from climate-induced disasters. The advances that secure a socioecologically sensible city in one place are too often 'bought' for the price of another future elsewhere. This unmaking of (urban) futures due to the externalization of the climate catastrophe is probably one of the greatest challenges for urban future-making in the age of sea level rise.

Communities such as Ban Khun Samut Chin can, therefore, be considered not only as 'defence lines' but also as 'sacrifice zones' of urban sea level rise. Such zones, in which human life is becoming increasingly challenging, are a direct side effect of the disastrous societal conditions responsible for climate change and produce uninhabitable environments in which those who survive have no proper right to exist and are thus treated as 'less than fully human' (Klein, 2014: 363). Sacrifice zones are waste spaces that are rendered disposable: 'places that […] somehow don't count and therefore can be poisoned, drained, or otherwise destroyed, for the supposed greater good of economic progress' (Klein, 2014: 169–70). In the case of Bangkok, places such as Ban Khun Samut Chin appear, at least from the standpoint of urban governance and planning, as places that count less than the economic centre of the city. The 'less-than-human' status of those who live in sacrifice coastal zones such as Ban Khun Samut Chin arises from a conflict over who counts as part of Bangkok. Being counted as 'urban' and 'human' therefore appear here as two sides of the same coin in the fight for a right to urban life, and this fight is ultimately a fight for having a future.

Yet, sea level rise creates not only defence lines and sacrifice zones but also the conditions for entirely new notions of urban space (Wakefield, 2022). What we can learn from the Bangkok case is that 'the border' as an administrative spatial category is an inadequate barrier to genuine political action in response to sea level rise. A truly effective attempt to govern urban sea level rise requires borders to be torn down and removed. Space must be liberated from its territorial constraints and (re)imagined in terms of its connections rather than its

divisions. Only when we recognize how processes such as sea level rise require spaces that are currently perceived and managed separately to be viewed as interwoven and interdependent can we start to imagine a climate-changed future without sacrifice zones. If sea level rise cannot be stopped, which is what most scientists today agree on, then sea level rise may open up a possibility of transformation based on the slow but equally unstoppable fight for new forms of spatialization quilted together around notions of equality, solidarity, and a collective mobilization for the socioecological right to urban life.

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