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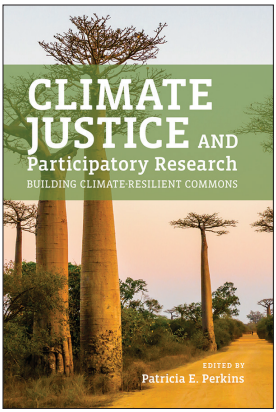

CLIMATE JUSTICE AND PARTICIPATORY RESEARCH: BUILDING CLIMATE-RESILIENT COMMONS

Edited by Patricia E. Perkins

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9

Investigating Citizen Participation in Plans for Lamu Port, Kenya

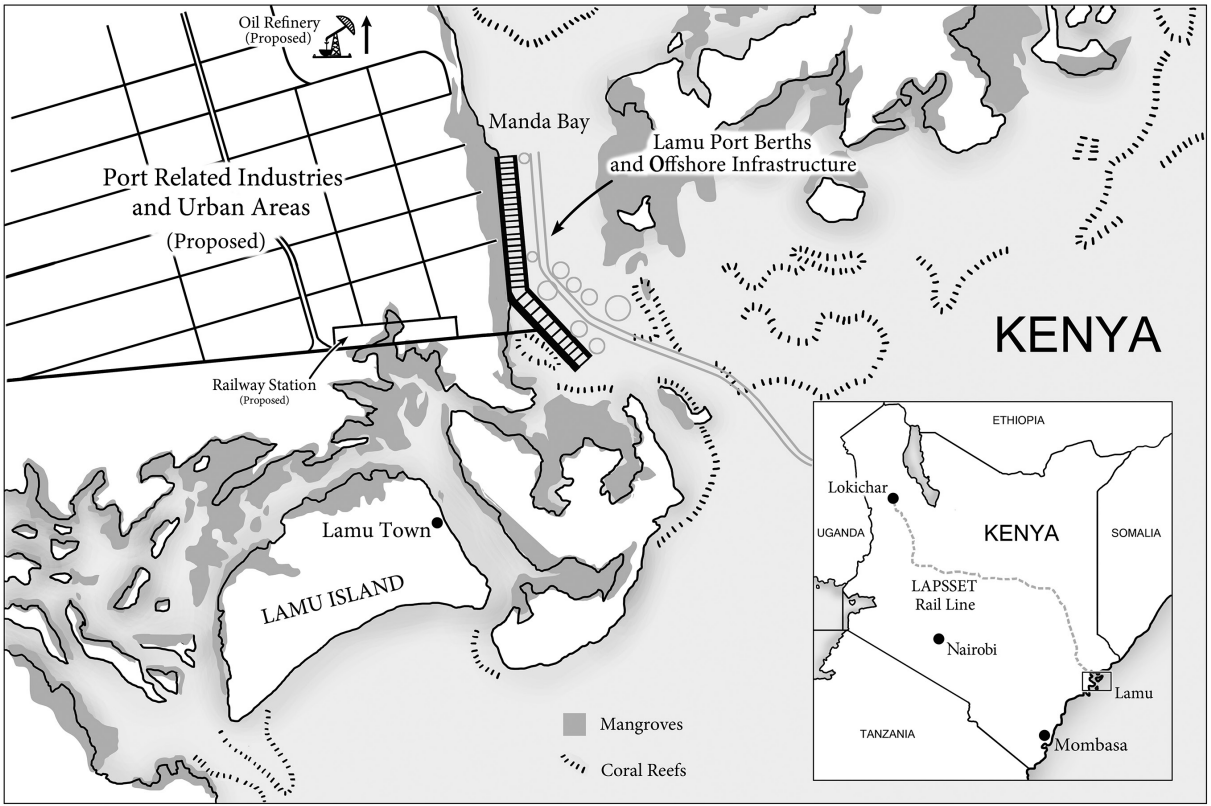
Solomon Njenga

Introduction: Lamu Port Development and Climate Justice

The government of Kenya is developing a new deep-sea port at Lamu, on the Indian Ocean coast of Kenya at Manda Bay (Map 5). The port, 240 km north of Mombasa, is to be the terminus of the 891-km-long Kenya Crude Oil Pipeline (now set to open in 2023), bringing oil from Lokichar in northwest Kenya.[1] Extensions to South Sudan and Ethiopia are also planned. The Lamu Port—South Sudan—Ethiopia—Transport Corridor project (LAPSSET) is also to include road, railway, and fibre-optic links as well as an airport, oil refinery, and Special Economic Zone for manufacturing and industry near the port in Lamu. The first berth of Lamu Port was completed in October 2019 and the second and third berths officially opened in May 2021, to export oil and other cargo using the Kenyan road system. As of September 2021, only five container ships had docked there (Maritime Executive, 2021). Plans include thirty-two berths for large ships. The port is being built by China Communications Construction Company (Bachmann & Kilaka, 2021) with funding from the Kenyan government.

The ongoing dredging of long 18-foot-deep berths along the Manda Bay coastline, an oil terminal for loading and offloading of tankers, and a 1.5 km

Map 5
Kenya—
Lamu



long causeway connecting the harbour to the town along the shore of the Indian Ocean, are causing a significant shift to marine ecosystems, especially mangroves (Map 5). Manda Bay mangroves have been intact for centuries but, due to the construction of Lamu Port, massive destruction of mangrove forests has been witnessed in the area (Taljaard et al., 2021). Mangroves play myriad roles including carbon sequestration, fish and turtle breeding habitat, coral reef support, and storm surge protection, and their destruction has multiple impacts on the community that depends on the environment for a living (Aalders et al., 2021). Communities in Lamu, backed up by international non-governmental organizations (NGOs) and United Nations (UN) organizations, have documented the declining volume and quality of fish in Lamu region along with impacts on the traditional and socio-economic existence of the local population, who depend on fishing and tourism for their livelihoods. Lamu Island is recognized for native fishing methods, and the port threatens this heritage. Artisanal fishing is the main source of livelihood for over 70 per cent of Lamu's population (Uku et al., 2021). Oil spills from transhipment of fuel and accidents are also of grave concern (Praxides, 2021). Due to all these impacts, there is clearly a need for dialogue by all parties involved (Mkutu et al., 2021).

A proposed coal-fired power plant at Lamu, which would have been the country's first, was stopped in late 2020 when three Chinese state enterprise investors pulled out after a community-driven protest movement convinced a court to suspend the project's permit (Yi, 2021; Obura, 2019). The local community argued that the coal plant project would be detrimental to the marine ecosystem and the environment at Lamu, with long-standing consequences for residents, particularly those living closest. Local residents also delivered a protest letter to the judiciary stating that Kenya (Figure 9.1) had emerged as a front-runner in clean and renewable energy in Africa, and those advances ought not to be lost through coal plant approvals in Lamu.

The lawsuit by the local community, arguing that port dredging has violated the cultural, fishing, and health rights of more than 4,600 people, resulted in a 2018 court order for US$170 million, which is to be used for more powerful fishing boats, landing sites, training, cooling services for fish catch, and a loan program (Njunge, 2019). Tourism, mainly from Europe, has also been impacted by the port development; just offshore Lamu Island is a fourteenth-century Swahili settlement and UNESCO World Heritage site.

Al-Shabab attacks and kidnappings in the area are a threat to local residents, tourists, and infrastructure (Mwangi, 2022).

This chapter discusses the extent to which citizen participation was included in Lamu Port planning processes, based on a study that involved household surveys, questionnaires, interviews with key informants, and focus-group discussions. A variety of coastal stakeholders including government officials, coastal businessmen, civil society organizations, and local residents were involved in the study. I carried out this research in collaboration with Climate Justice International (CJI), an NGO which has been working in Lamu for years and has a number of climate justice related projects in East Africa.

CJI's vision is "to liberate vulnerable and Indigenous coastal communities from environmental bondage through ecology conservation and stewardship" (CJI, 2022). I was based at CJI for a period of two years (2019–2021) as a research fellow, with a special focus on Lamu Port infrastructure and its implications for the community in pursuit of climate justice. I participated in community advocacy, awareness, training, and facilitations that correspond to the vision and mission of CJI; facilitated five community engagement meetings and dialogue initiatives on the impact of Lamu Port; attended three court sessions at Lamu Law Court for hearings on the ongoing cases by the community arising from the Lamu Port development and the proposed Lamu coal plant; joined as a participant observer with Lamu community members in public protests airing their grievances to the world in pursuit of climate justice; participated in a CJI field visit to the Lamu Port construction site, as well as visits to mangrove sites, coral reefs, and fishing areas; participated in reviewing Kenya's national laws and policies that relate to climate justice including REDD+; prepared a modest literature review for CJI on climate justice in Kenya, Africa, and globally; and conducted stakeholder interviews, facilitated focus-group discussions, community briefings, and report writing (Figure 9.2). This connection with CJI greatly facilitated my research, contacts, background understanding of the local situation, and mobilization of my research results.

As discussed in this chapter, I was able to document, along several parameters, that the involvement of the local community in decision-making about Lamu Port development has been very low, and to date the community is not satisfied with information-sharing regarding Lamu Port plans, transparency, or accountability. Moreover, local residents are not satisfied with

Fig 9.1 A 2014 community-led lawsuit against destructive dredging at Lamu Port resulted in a successful court verdict in 2018, though it is under appeal by the government. Disputes continue over the allocation of US$170 million decreed by the court in compensation for 4,700 fisherfolk (Lesutis, 2022, p. 2445).

the kind of education and sensitization they have received about Lamu Port plans, construction, or decision-making.

My findings were meant to document and highlight the importance of more effective citizen participation in sustainable planning of such large-scale development projects with significant livelihood implications for local people and ecosystems. Theories and much global research over many years underscore the importance of citizen participation for sustainable political, social, and environmental planning, as recognized in Kenya's constitution. This study adds to that literature, providing important contextual details on a number of climate justice-related impacts of the controversial Lamu Port and LAPSSET project.

The next section of this chapter overviews a subset of the literature on public participation that provides the theoretical framework for this research, focusing on the Kenyan context in comparison to other African and international port developments. Section three outlines the methodology for this study, and its results are presented and discussed in section four. The final section discusses a number of climate justice implications.

Literature Review and Theoretical Framework: Participation and Climate Justice in Kenya

Public participation is an important aspect of citizen engagement in environmental governance and planning (Gera, 2016). Globally, there is a growing need to engage citizens in decision making (Callahan, 2007),[2] and a number of examples from around the world indicate this is very salient in relation to port development. In Canada, the participatory public governance and community-based management has contributed greatly in the management of ocean resources (Kearney et al., 2007). Lack of citizen participation in an Alaska port city region in the USA has contributed greatly to the existing unhealthy relationship between the government and the community in the region (Jordan et al., 2013). This is the same in the coastal region of Lekki Port in Nigeria (Jimoh, 2015) where violence has been documented between the coastal community and the government for failure to include them in coastal decision-making platforms (Lawanson & Agunbiade, 2018). In Madagascar, the government is empowering coastal communities to effectively manage port and coastal resources through citizen inclusivity and transparency (Danielsen et al., 2009). In South Africa, the government, with the help of the private sector and civil society, has developed a policy on sustainable ports (Glavovic, 2000).

Citizen participation is enshrined in the Constitution of Kenya (Kenya Law, 2013). In sustainable port planning, citizen participation is a requisite, partly because ports can have a significant effect on coastlines, landscape, marine ecosystems, and community livelihoods. Siami-Namini (2018) states that access to information in public participation for decision-making is crucial in sustainable port planning and management; participation involves "enabling people to realize their rights to participate in, and access information relating to, the decision-making processes that affect their lives," and specifically, to influence details of policy legislation, and to monitor their

implementation (Siami-Namini, 2018, 5). Gusinsky et al. (2015) similarly point out that transparency and accountability through citizen participation in the public sector are crucial in sustainable planning. This requires addressing all project-related issues, and being answerable for the project's plan, actions, and justifications (Gusinsky et al., 2015).

In Kenya, coastal resources are not to be exploited without proper public participation (Yeri, 2018). The Kenya Vision 2030 (Nyangena, 2012) also requires public participation for a sustainable offshore "blue economy" relying on coastal resources (Benkenstein, 2018; Novaglio et al., 2021).

This is particularly important at Lamu since, besides the ecosystem impacts noted above, concerns regarding the viability of Lamu Port include emerging challenges such as sea-level rise, oil pollution, invasive species, and storms; uncertainties about the port's impacts and their effects on the public; and other implications (Wanderi, 2019; Mohamed, Abdel-Salam, & Bakr, 2021). Years after the landmark court judgment on Lamu Port (Wanderi, 2019), the $170 million settlement has not yet been disbursed, and violations and failure to involve the community in decision-making continue, while construction goes on unabated (Owino, 2020). This has led to ongoing contestation between the government and the Lamu community.

Thus, the level of citizen participation in Lamu Port planning is nested in layers of climate justice struggles. Establishing its inadequacy from the community's perspective can be seen as a step towards building better processes, in line with Kenyan law, and acknowledging the importance of the Lamu community's engagement in climate action.

Methodology: Participatory Research on Participatory Governance

To investigate community members' views and document their input on how they were consulted about the port, I used a multi-methods approach (Mohamed, Jafari, & Hammad, 2021). The study included household surveys, questionnaires, interviews with key informants, participant observation, and focus-group discussions. This allowed me to build the story of community members' engagement, piece by piece, and to combine information from various sources. I had many opportunities to engage with local residents as a participant observer due to my work with CJI.

Fig. 9.2 Marine conservation meeting in Lamu, 2020.

I used purposive sampling to select one key informant from each of ten identified professional categories: the Kenya Forest Service (KFS), Kenya Marine and Fishery Research Institute (KMFRI), Beach Management Units, Fisher folks, County Government of Lamu Officials, LAPSSET/ Lamu Port Management Unit and allied workers, Selected Civil Society Organization representatives, Kenya National Human Rights Commission (KNHRC)-Lamu branch, Lamu Business Community (LBC) and National Police Service (NPS) & Kenya Defence Force officials. I thus picked ten individuals to act as key informants. Using interview schedules to guide the discussion, I also employed focus-group discussions (FGDs) for each of the ten professional categories of potential respondents. These FGDs brought together carefully selected groups of about six people from each group, for a ninety-minute guided discussion to gather information and provide data on specific questions related to this research.

I carried out a household survey between November 2020 and February 2021 in Lamu County, Kenya (Hoyle, 2001), which has a population of 143,920 (Republic of Kenya, 2019, p. 7). Adopting the formulae of Kothari (2013) to determine the sample size in relation to the population of Lamu County,[3] the survey had a sample size of 195. I relied on semi-structured questionnaires for the household surveys. The questionnaire was composed of three parts. The first part was the consent form; the second part include demographic questions; and the third part contained four sets of participation-related questions: a) on the decision to establish a port; b) on information access and sharing; c) on transparency and accountability; d) on education, sensitization, and sustainable planning. The selection of these factors was based on my review of literature on public participation, including Bartoletti and Faccioli (2016); Horgan and Dimitrijević (2019); and Johann (2012). The questionnaire used a Likert scale—a psychometric scale where peoples' responses can range from 1 (strongly disagree) to 5 (strongly agree)—which allowed me to categorize and present the overall responses (Pimentel, 2010). Two research assistants and village elders helped me to distribute and explain the questionnaires. The respondents filled out the questionnaires themselves. The data collection using questionnaires took place over a period of twenty days. Results and research participants' views and comments are summarized and discussed in the following section.

Results and Discussion: Building the Account of Citizens' Views on Participation in Governance[4]

A total of 195 questionnaires were distributed, of which 163 were completed adequately for the purpose of data analysis, giving an acceptable response rate of 83 per cent.

The results from the questionnaire's demographic questions about respondents are summarized in Table 9.1. A slight majority (51.5 per cent) of the respondents were male while 48.5 per cent were female. The majority of the respondents (84 per cent) had a primary, secondary, or diploma certificate while 16 per cent were university graduates or post-graduates. Most (90.8 per cent) of the respondents had lived in Lamu for over fifteen years, with the rest (9.2 per cent) having lived there for less than ten years.

Finally, in terms of occupation, 80 per cent of the respondents were either fish traders, fishermen, teachers, government representatives, hotel

Table 9.1 Respondents' Social-Demographic Characteristics.

Gender	**Frequency**	**Percentage**
Females	79	48.5
Males	84	51.5
Total	**163**	**100.0**
Education level	**Frequency**	**Percentage**
Primary	29	17.8
Secondary	66	40.5
Diploma/Certificate/Artisan	42	25.7
Bachelors	21	12.8
Postgraduate	5	3.2
Total	**163**	**100.0**
Length of Stay in Lamu	**Frequency**	**Percentage**
Less than 1 year	3	2.0
1–5 years	5	3.1
5–10 years	7	4.1
10–15 years	52	32.2
15 and above years	96	58.6
Total	**163**	**100.0**
Occupation of Respondents	**Frequency**	**Percentage**
Fish Trader	14	8.5
Teacher	35	21.6
Government Employee	17	10.1
Hotel Employee	35	21.7
Fisherfolk	18	11.1
Farmer	11	7.0
Others	33	20.0
Total	**163**	**100.0**

employees, farmers, or government/county employees, while the rest (20 per cent) worked in other civil society occupations, NGOs, etc. This shows that respondents were distributed across government, community, and various stakeholder groups.

Table 9.2 Decision to establish Lamu Port.

Statements on Involvement of the Public in Decision-Making	Mean
There was no team of locals selected to participate in the initial discussion of establishing Lamu Port infrastructure at Manda Bay	1.6503
The Lamu County government was involved in the decisions-making process	1.5828
The vulnerable people were involved and were guided on how to adapt	1.5583
The experts from the community are involved in technical teams	1.5583
The port management carried out public opinion research before the port began	1.5521
The opinions and views of the community takes centre stage in decisions made	1.5460
The Lamu Port management organizes focus-group discussions with locals	1.5215
The port management has formed round table discussion with locals	1.5031
The members of the local community influence decisions made	1.4785
The public was involved in mitigating impacts of the port activities*	1.3681
Overall Mean	**1.5319**

* This question relates to whether the community was involved in deciding and setting up ways to mitigate port impacts such as those due to dredging, oil spills, and other effects of the ongoing construction.

Since an important purpose of this study was to explore the level of citizen participation regarding the decision to establish Lamu Port infrastructure at Manda Bay, the survey respondents were asked to indicate whether they agreed or disagreed, and to what extent, with a range of statements about participation. In general they reported a very low degree of consultation, along many parameters. In Tables 9.2, 9.3, 9.4, and 9.5, the statements are listed in order from those which averaged most to least agreement. A mean score of 1 indicates "strongly disagree" while 2 indicates "disagree."

On the question of whether the public was consulted about the decision to build Lamu Port at all, the results are shown in Table 9.2.

Table 9.2 shows that the most-supported statement was that there was no team of locals selected to participate in the initial discussion of establishing Lamu Port infrastructure at Manda Bay. This response was tending towards disagreement with the statement, implying that, even if there were representatives picked to represent the community, respondents felt that there was no fair representation of the local citizens. The statement that received the lowest rating based on mean was that the public was involved in mitigating impacts

Table 9.3 Information access and sharing.

Statements on Information Sharing and Access	Mean
The port management uses newspapers to post critical information	2.2945
The Lamu Port management has a website where it shares information	2.1534
The information shared is usually made at the right time	1.6503
The port management shares notification on your mobile phones on the happenings at the Lamu Port	1.6196
The public relations officer of the Lamu Port management gives frequent timely updates on happenings at the port	1.5828
The port activities are posted frequently on notice boards within Lamu County	1.5583
The management of Lamu Port collaborate with Lamu County government to pass on crucial information to members of the public frequently	1.5521
The Chief's Baraza's* are used frequently by the port management to pass on information about happenings at the port of Lamu	1.4969
The management uses the radio media frequently in Lamu to discuss and pass on information about issues around the port construction	1.4785
The information passed on by the management is adequate for the community	1.3681
Overall Mean	**1.67545**

* A Baraza is a traditional, semi-formal, public open-air meeting convened by a chief to address local issues and communicate government agendas and policies to the grassroots.

of the port activities. Their response tended towards strong disagreement meaning they weren't involved. The overall mean score on the statements also tended towards strong disagreement (the overall mean score was 1.5319), revealing that the involvement of the local community in decisions being made about the Lamu Port has been very low.[5]

Table 9.3 reports the results regarding whether local community members had access to information about port planning. The respondents were asked to rate a number of statements about this, again listed in the table from those which averaged most to least agreement.

The most supported statement was that the port management uses newspapers to post critical information to the public. The response was leaning towards disagreement with the statement implying that the use of newspapers to relay information about port activities was not very effective. The statement that was supported the least by the respondents was that the information passed on by the Lamu Port management is adequate for the community. The

Table 9.4 Transparency and accountability.

Statements on Transparency and Accountability	Mean
There is periodic reporting of what is ongoing at the Lamu Port	1.6503
The management of Lamu Port are upright individual and law-abiding members of the society	1.6503
Lamu Port activities is not done under strict secrets and information blackout to the local community	1.5828
The representatives of the local community are treated as equal partners in decision-making regarding port activities	1.5521
The management of Lamu Port usually abides by all court judgments	1.5460
The compensation plan for the local community affected by port activities is fair and adequate	1.5460
The management of the port does not get involved in any form of bribes to community representatives to buy their cooperation	1.5031
The management of the port does not conceal any crucial information to the public	1.4969
The management of the port treats the community with respect and dignity	1.4785
The management of the port are accountable for their actions and activities to the community	1.3283
Overall Mean	**1.53741**

overall mean score on the statements tended towards strong disagreement (1.67545), implying that the respondents were not satisfied with information sharing at the Lamu Port.

Responses to statements about citizens' level of participation regarding transparency and accountability in the planning of Lamu Port infrastructure are given in Table 9.4.

The statement with the highest agreement (though still very low) was that there is periodic reporting of what is going on at the Lamu Port. The respondents' tendency towards disagreement with the statement may reflect community members' views that the community only had the opportunity to learn about port developments through their court petitions; there were limited reviews and petition mechanisms put in place by the port developers. The statement with which there was least agreement was that the management of the port is accountable to the community for their actions and activities. The overall mean score on the statements also tended towards strong

Table 9.5 Education and sensitization.

Statements on Education and Sensitization	Mean
The management of the port sensitizes the community on the benefits the port will have to the local community	2.2515
The port management has been organizing forums to educate the public on possible impacts of the port to the livelihood of the local community	2.1718
The local community received printed materials for learning at home	1.5828
The public was educated on how to reduce the impacts of port construction	1.5583
Education received was very useful in understanding the risks	1.5399
Port management organizes seminars to teach the public how to adapt to changes brought by port construction	1.5215
The management accommodated the local community's needs during the seminars	1.4785
The public has been educated on alternative means of survival in case their traditional economic activities are affected	1.4663
The educators were rich in knowledge and experience	1.4601
The education was received at the right time when the community needed it	1.3129
Overall Mean	**1.63436**

disagreement (mean of 1.53741), meaning that respondents feel the port project developers have not conducted themselves with the transparency and accountability expected in law and by the local community.

Table 9.5 lists the statements on community education and sensitization about sustainable planning for the Lamu Port.

As shown in the table, the most-supported statement was that the management of the port sensitizes the community on the benefits the port will have to the local community when it is complete. The response was tending towards disagreement with the statement, implying that port developers' statements were attempting to convince local residents of the port's benefits. The statement that was supported the least by the respondents, tending towards strong disagreement, was that education and sensitization was received at the right time when the community needed it. The response implies that the education and sensitization received was not adequate as it came at the wrong time, after the port construction had started. The overall mean score on the statements tended towards strong disagreement (mean of 1.63436),

implying that the respondents were not satisfied with the kind of education and sensitization they received about Lamu Port.

The respondents also commented on the extent to which the port builders and local police were fully aware that the community was not in support of port construction.

Fatma (not her real name) was one of the local opinion leaders who confided that "we had to hold public vigils at night because the implementers of the Lamu Port decided to bring construction materials at night in fear of the community's backlash! We demonstrated many times on the street and government county offices demanding disclose of information about what was taking place inside the Lamu Port. Unfortunately, many a time we were dispelled by the police. They instilled fear in us, to the extent that many members got scared to engage them. The port is still ongoing and yet, no full disclosure of what is happening to date."

Since about 20% of respondents were fisherfolk or fish-sellers, I also include here some of the results from those sectors that are important for the community's livelihood, as well as participants' comments on the security situation in the community in relation to the port development and its impact on land tenure issues. These are important climate justice impacts of the port construction on which local residents had plenty to share: views and knowledge from their lived experience which, given the lack of consultation with Lamu community members, can only come to light through participatory research.

Impact of Lamu Port on Fish and Fishing Activities

The study investigated the impact of Lamu Port construction on fish and fishing activities in the community. Respondents were asked to rank their responses using the Likert scale. The data collected and associated analysis is given in Table 9.6, which shows respondents' assessment of the impact of port construction on fish and fishing activities in Lamu County. The table presents the mean response before and after port construction began, the difference in mean and percentage change in mean. The most impacted fish and fishing activity based on difference in mean response was that after port construction began, sea grass (which is a major food supply for fish) became no longer predominant around the spot where port construction is ongoing ($\mu x = -2.99$).

Table 9.6 Impact of Lamu Port on fish and fishing activities.

	Before	After	Difference in Mean	Percentage Δ in Mean
	Mean Response	Mean Response		
Weight of fish caught	4.07	1.62	-2.45	-60.19
Affordability of fish	4.20	1.51	-2.69	-64.04
Average number of fish species	4.26	1.56	-2.7	-63.38
Low prices in the market	4.40	1.50	-2.9	-65.90
Coral reef growth	4.37	1.58	-2.79	-63.84
Number of fisherfolk	4.26	1.48	-2.78	-65.25
Demand of fish	4.28	1.55	-2.73	-63.78
Shortage of fish	4.35	1.50	-2.85	-65.51
Predominance of sea grass	4.36	1.37	-2.99	-68.57
Deep sea fishing	4.42	1.55	-2.87	-64.93
Overall Mean Score	**4.29**	**1.53**	**-2.767**	**-64.39**

The impact of Lamu Port construction on fish and fishing activities is evidenced further by information collected in FGD with key informants from fisherfolk, who were of the opinion that the construction of the port has had major negative impacts on fishing and fishing activities. One forty-six-year-old fisherman stated:

> Before the port activities began, I used to get 50 kg in one catch but since the exercise started I cannot get even 20 kg. The fishmongers don't want to understand when you raise the price because they will tell you they have the option of buying Chinese fish.

The fisherfolk claim they have been unable to meet demand for fish, due to the disruption of fish-breeding sites by a sand-harvesting exercise in nearby Tiwi Beach. The sand is for the construction of an oil terminal at the port of Mombasa, another project being constructed by the China Communications Construction Company. However, an officer from KMFRI

was more optimistic when discussing the impact of Lamu Port construction on fish and fishing activities. The officer stated,

> Even though most fishermen are complaining about the construction of Lamu port on their fishing activities, the truth of the matter is that the government has already provided funds to support the fishing activities of the affected fishermen.... The government has approved funds to cater for the purchase of boats and engines capable of fishing in the deep sea, the development of new fish landing sites, training, cooling services and a loan scheme. [Perhaps he was referring to the court settlement of the community's lawsuit, discussed above.]

Information from a discussion with a key informant on beach management revealed a fight over beachfront land affecting fishing activities. The key informant stated that the construction of the beach has denied fisherfolk spaces for fishing, as most beachfront lands have been taken by the port construction. Private developers have also been grabbing beach lands, hence denying the fisherfolk spaces for fishing. The key informant stated,

> Of late, we as a beach management group have had many cases of fishermen complaining of beach lands being fenced off by unknown private developers from Nairobi. The port itself has also taken a big portion of our fishing grounds. This has forced many fishermen to go deep into the ocean waters to have their catch. Deep in the waters, they face stiff competition from companies with well-developed facilities for fishing. They also get exposed to the problem of crossing into waters of neighbouring countries.

Impact of Lamu Port on Security and Terrorism Incidences

The study explored the impact of Lamu Port construction on security and terrorism incidence in the community. As above, respondents were required to rank their responses for before and after port construction, using the Likert scale. Table 9.7 shows community members' assessment of the relationship between port construction and security and terrorism incidences in Lamu

Table 9.7 Impact of Lamu Port on security and terrorism incidences.

	Before	After	Difference in Mean	Percentage Δ in Mean
	Mean Response	Mean Response		
Few cases of general insecurity	3.95	1.55	-2.4	-60.75
Few police posts	4.2	1.50	-2.7	-64.28
Few terrorist attacks	4.35	1.36	-2.98	-68.57
No tourist abduction by terrorist	4.53	1.65	-2.88	-63.57
Few police patrols in the areas	4.45	1.55	-2.9	-65.16
Army activities in area was very rare	4.19	1.56	-2.63	-62.76
Few cases of security curfew	4.22	1.52	-2.7	-63.98
Arsonist attacks not a problem	4.3	1.56	-2.74	-63.72
Few sanctions by the government	4.33	1.58	-2.75	-63.51
No fear or uncertainty	4.3	1.48	-2.82	-65.58
Overall Mean Score	**4.283**	**1.532**	**-2.751**	**-64.23**

community. The table presents the mean response before and after port construction began, the difference in mean, and percentage change in mean. The most impacted security factor based on difference in mean response was that before port construction there were fewer terrorist attacks compared to after port construction, with difference in mean of = -2.98). The least impacted activity based on difference in mean was for the indicator "few cases of general insecurity," with the insecurity not changing much before and after the start of port construction.

The impact of Lamu Port construction on security and terrorism activities was a source of great concern, as expressed during the FGD with key informants and the community. One member from the business community stated:

> Before the port construction began, this place was very safe; we could walk freely doing our businesses without any fear from anybody. The villagers could go fishing into the ocean without fearing that they would be attacked by the "bad people" [*implying terrorists*] … I

> remember I could wake up in the early morning to go take fish from the fishermen ready for the market.

A key informant from the Kenya police stated in the discussion that

> The attacks by Al-Shabaab extremists in Kenya have threatened to wipe out the gains made from tourism and [this] has threatened to destabilize livelihood earning activities in some parts of the country such as Lamu County. However, the government is working around the clock to flush out the militia's group hiding in [the] Boni Forest[6] and very soon, they will be concurred.

Even with the positive opinion of the key informant from the Kenyan police service, a key informant from the Kenyan National Commission on Human Rights painted a gloomy picture of the situation on the ground. The activist stated:

> Al-Shabaab militias are roaming freely like they are in their home under the noses of our security apparatus. This port construction has attracted the interest of these animals who come here and ambush residents whenever they like and then disappear in the Boni Forest in the full knowledge of our police. In fact, since the port construction begun, there have been dozens of attacks on the locals who are now living in fear in their own land left to them by their ancestors.

Impact of Lamu Port on Land Conflicts and Land Use

The study also investigated the impact of Lamu Port construction on land conflicts and land use in the Lamu community through a number of questions about land issues. Table 9.8 shows the impact of port construction on land conflicts and land use in Lamu community, as assessed by community members. The table presents the mean response for before and after port construction begun, as well as the difference in mean and percentage change in mean. The most impacted land issue based on difference in mean response was that before port construction, there were few tourist hotels being constructed around the port construction area but since the construction began,

Table 9.8 Impact of Lamu Port on land conflicts and land.

	Before	After	Difference in Mean	Percentage Δ in Mean
	Mean Response	Mean Response		
Few people complaining of losing land	4.33	1.55	-2.78	-64.20
Few displaced people in the area	4.34	1.50	-2.84	-65.43
Few incidences of land conflicts	3.94	1.37	-2.57	-65.22
Few land cases in court	4.23	1.65	-2.58	-60.99
The price of land affordable to many	4.37	1.55	-2.82	-64.53
Low demand of land for development	4.42	1.56	-2.86	-64.70
Few tourist hotels being constructed	4.48	1.52	-2.96	-66.07
Few cases of eviction with no compensation	4.50	1.56	-2.94	-65.33
Most lands were under cultivation	3.88	1.51	-2.37	-61.08
No encroachment in gazette water towers	4.12	1.56	-2.56	-62.13
Overall Mean Score	**4.26**	**1.53**	**-2.72**	**-64.02**

most lands had been taken for development of tourist hotels and villas with difference in mean of -2.96. The least impacted activity based on difference in mean was lands under cultivation, meaning most lands are still under cultivation, even they though they are slowly changing to development for housing construction and other construction, with difference in mean of -2.37.

The impact of Lamu Port construction on land conflicts and use appears even more serious in the light of comments from the FGD with key informants. An informant from the business community stated:

> Before the government bought this project to us, we did not have much problem with our land ownership … even though there were small issues here and there about land, we did not have the issue of land being grabbed by big men in government from Nairobi. Our

> fathers could till the land for small scale agriculture without much problem.

However, since the port construction begun, there have been issues of land being grabbed by unknown people from other parts of the country. Since construction of the port began, developers have been streaming in to buy land or dispossess the local owners, working with unscrupulous land officers in Lamu. A key informant from KMFRI stated:

> There has been stiff competition for prime land surrounding present fisheries which are leading to a loss of beach access routes by fishers.… The construction of tourist hotels along the coast, operations of private individuals outside the community, and large scale marine exploitation projects have also been prohibiting locals from accessing their resources.

Even though the key informant from KMFRI did not mention names, it was clear that Lamu and LAPSSET were partly to blame for loss of land for fishing activities, considering the magnitude of the port project and the obvious effects it will have on Kenya's marine and fisheries. Another key informant, a Lamu landowner residing in the upscale enclave of Shela, reported on condition of anonymity that an acquaintance takes "phone orders" for land he has expropriated, and for which he has manufactured title deeds. The landowner added:

> You are welcome here in Lamu, but tell the truth about Lamu when you are at home [in Nairobi]. Lamu is our paradise and those government thieves in Nairobi want to steal it from us. I am an Indigenous Lamu man who has never left here. Foreigners who have been placed here by the government now own my land and most of us are squatters on the land—the same land our fathers and their fathers and [grand]fathers worked for food.

Conclusion: Climate Justice Implications of Lamu Port Development

This investigation of citizen participation in the planning of Lamu Port in Lamu County, Kenya showed that Lamu citizens and the local community perceive the lack of citizen engagement opportunities in Lamu as a serious breach of their constitutional and environmental rights, and they have called upon the Lamu Port implementers to involve them and stop working in isolation. They placed the onus for citizen participation on central government and county officials, and expressed their desire to be engaged through applicable local avenues, entities, and frameworks. They emphasized the need to engage all stakeholders in Lamu, facilitate information-sharing and access regarding Lamu Port, spearhead transparency and accountability, and encourage continuing education by every possible medium to enhance citizen participation for sustainable planning of the ongoing Lamu Port infrastructure.

This study was preliminary and has its limitations. The survey only included residents of Lamu County within a radius of 20 km from the port of Lamu. It would have been ideal to conduct interviews and FGD with residents and key informants from a wider area—perhaps the whole coastline of Kenya. Because of the methodology, which involved a large number of self-administered questionnaires, requiring more educated participants, I made certain adjustments that may have skewed the results in favour of more-educated and more-articulate participants.[7] The survey questions might have been expanded to include more indicators that would have allowed additional insights from the study. Nonetheless, the results of this study offer unprecedented insights into citizen participation in sustainable infrastructure planning in Kenya, and climate justice impacts of the construction of Lamu Port. The investigation relied on self-reported practices and views, which are central to its results; the participatory methodology allowed for triangulation to validate and enhance the conclusions.

This study provides rich detail on several matters that are central to climate justice and associated struggles.

1. People denied participation through one channel will seek (and usually find) another. Without consultation and incorporation of people's local knowledge and livelihood priorities *ex ante* in development processes, people are likely to organize protests;

seek redress in the courts; find supporters outside the jurisdiction to bring pressure on decisions; and/or influence investment decisions. To avoid community revolt and street protests, and economic decline fuelling long-term unrest, community engagement processes should

a. Involve all stakeholders and the local community in the advancement of a project-led vision and mission
b. Enlighten and edify the community about the logic and rationale of the intended or ongoing project, its expected impacts, its extent and duration, and other logistics that pertain to the project
c. Stimulate a sense of communal ownership and stewardship of the project through, for example, community benefits discussions and agreements
d. Generate enthusiasm and anticipation around prospects for the local people to benefit and raise their livelihood prospects so that they tend to embrace the project and safeguard it
e. Build robust networks, connections, and relationships between the project, the community, and other internal and external interests working for the project's success
f. Involve the young, women, people with disabilities, and less fortunate community members in various aspects of the project where they may work, contribute, and/or benefit
g. Appoint champions and facilitate an enlarging ring of support system/followers and defenders of the project for better synergy and joint ownership of the project

2. The findings established that Lamu Port construction has major impacts on fish and fishing activities, a mainstay of the local economy and of many community members' livelihoods. Discussion with various key informants in this study revealed that Lamu Port construction has already had negative impacts on the marine ecosystem and the community members who depend on it. The findings in this study are in agreement with findings by

Rodden (2014) that established that the LAPSSET project has the potential to severely affect the artisan fishing industry in Lamu. Our study shows that the fisherfolk of Lamu are most concerned about the lack of communication concerning the port's activities and the blocking of fishing areas during port construction and operation.

3. Participatory governance institutions are designed to build on local knowledge and assets, but they can be disrupted by incumbents (those who benefit from the status quo and fear change) as well as market pressures from outside the area. International solidarity for climate justice action can help to publicize and counter such regressive tendencies. From my many interactions with the community in Lamu, I learned that participatory governance largely depends on how well the project implementers are able to involve the local, regional, and international community and stakeholders at all levels of the project. The interactions with community and stakeholders add legitimacy and genuineness in the project's vision, mission, and intended goals. These interactions safeguard both interests: those of the community and also the interests of the implementers. In this way, the implementers are able to address the needs of the local community and help them build local support for the project. The local community ought to be involved from the initial stages of the project; this helps all stakeholders to have trust in each other.

4. This study revealed that Lamu Port development has incited rivalry between community members and investors and led to various land-related conflicts. Since port construction began, land uses have changed from the traditional farming and fishing to development of hotels and villas to support the population moving into the Lamu area, due to new economic prospects of the Lamu Port; these changes mostly benefit outsiders.

5. Local knowledge of ecosystems and how to protect them, and local people's commitment to do so when their livelihoods

depend on viable ecosystems, are significant assets and powerful forces for climate action. I also learned that there are a series of interrogations that one can use to assist in determining the features of a particular community ecosystem. The following axioms may help determine the needs of the community: socio-economic and demographic features of the area; collective, financial, and ecological challenges or attributes of significance for the community; ongoing interactions and happenings that help determine neighbourhood improvement and identify emerging needs; livelihood dependency of the community in the region; and employability, sustainability, and developmental strategies to promote and uplift the lives of those in the community. These are some of the things community members are looking for when a project is broached within their vicinity, and mandatory public participation can help ensure that the project brings benefits for all.

NOTES

1 The Lokichar oil fields are being developed by the Canadian firm Africa Oil (which controls 25 per cent), along with Total (25 per cent) and the Anglo-Irish Tullow Oil (50 per cent) (Itayim, 2021).

2 Citizen participation theory (Horgan & Dimitrijević, 2019) provides governments, individuals, and stakeholders with a pragmatic rationale and platform for allowing all involved stakeholders to participate in decision making before a project is initiated (Bartoletti & Faccioli, 2016). The terms "citizen," "public," "involvement," and "participation" are frequently used synonymously (Thompson, 2007). Citizen participation refers to the direct involvement of constituents in decision-making (Hardina, 2003). Citizen involvement is a means to ensure that citizens have a direct voice (Richardson & Razzaque, 2006). In governance contexts, citizen engagement enhances social cohesion, responsibility, and stewardship (Bäckstrand, 2003). This includes bringing dissimilar and/or Indigenous coastal communities together, bringing "hard to reach" and "disadvantaged" groups into discussions, building relationships within and between different coastal communities and social groups (Beall & Ngonyama, 2009).

3 For details on this and other calculations, see Njenga, 2022.

4 Quantitative and statistical analysis of survey and questionnaire results using SPSS, and additional aspects of this study, are reported on and discussed in my dissertation: *Climate Change and Seaport Development on Ecosystem-Dependent Livelihoods through Climate Justice Lens at Lamu Port, Lamu County, Kenya* (Institute for Climate Change Adaptation, University of Nairobi, 2022).

5 As Irvin and Stansbury note, in most projects across the globe, this is not unusual; communities are rarely involved in public decision-making (Irvin & Stansbury, 2004).

6 Boni Forest is an indigenous open canopy forest found in coastal areas from Kenya to Mozambique—rich in biodiversity.

7 Overall in Lamu County, only 13 per cent of residents have a secondary level of education, and 33 per cent have no formal education (SID, 2013). I knew this fact and one of my mitigative approaches was to visit schools for referrals of those who had secondary education, so that I could select them for inclusion in the study. There are also gender implications to selecting more-educated participants since educational opportunities are more limited for women and girls.

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