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Original article

Natural gas extraction and community development in Tanzania: Documenting the gaps between rhetoric and reality

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ABSTRACT

The Tanzanian government recently adopted new legislations to reform its oil and gas sector, for the purpose of safeguarding its interests and serving the developmental aspirations of its ordinary citizens. While laudable in spirit and content, these reforms have raised questions about their implementability, particularly with regard to their developmental impact on all Tanzanians. Drawing on fieldwork conducted in the natural gas producing coastal region of Mtwara, including a large-scale household survey, this paper contrasts policy articulations with local community expectations and household perceptions, attending to the different ways in which gas development activities have affected communities near on-shore gas fields and gas processing plants. While the rhetoric of gas-driven prosperity has contributed to high expectations among communities in the gas producing region, it has not translated into reality for most individual households. This gap reflects the centralized character of resource governance, the inconsistent way policies pertaining to natural gas development have been framed and reframed, the unrealistic expectations of prosperity that have pervaded national and local discourses on the gas discoveries, the lack of public consultation, and state-directed violence. The paper contributes empirically to the literature and on-going debates about the extractive sectors' impacts on project-affected communities.

1. Introduction

In 2010, new natural gas discoveries in Tanzania's Mtwara region prompted expectations of unprecedented economic growth and social development among many Tanzanian political leaders and ordinary citizens. At the same time, some academics, law makers and Tanzanian civil society representatives emphasized that the "gas bonanza" might, in fact, become a "resource curse," hurting Tanzania's economic growth and worsening corruption and existing inequalities (Lokina and Leiman, 2014; Moshi, 2014; Poncian, 2014; Sanghvi and Jingu, 2013). Such fears, along with other pragmatic considerations, persuaded Tanzania's policy makers to revise the country's existing petroleum policy to delimit the risk of unscrupulous rent-seeking and elite capture and ensure that the natural gas is recovered and utilized for the benefit of all Tanzanians.

To that end, the Tanzanian government has passed several legislations. These include: The Petroleum Act, 2015; Oil and Gas Revenues Management Act, 2015; Tanzania Extractive Industries (Transparency and Accountability) Act, 2015; Local Content Policy of Tanzania for Oil and Gas Industry (2014), the Natural Gas Utilisation Master Plan (2016-2045); the Written Laws (Miscellaneous Amendments) Act 2017; the Natural Wealth and Resources (Permanent Sovereignty) Act 2017 and the Natural Wealth and Resources (Revenue and Re-Negotiation of Unconscionable Terms) Act 2017 (Jacob, 2017; Lee and Dupuy, 2018; Melyoki, 2017; Pedersen and Bofin, 2015; Poncian, 2018; Poncian and George, 2015). As Pedersen and Jacob (2017:920-921) note, "the Petroleum Act of 2015 [...] has entailed tougher fiscal regimes, increased regulation, the establishment of new oversight bodies and more direct economic engagement by the state through local content provisions, as well as in the guise of an investor through revived or revitalized stateowned enterprises." Further, the new Act also has "much more proactive provisions that require companies to develop CSR policies, present detailed plans for how they intend to observe environmental and social standards, [and] how they will link up with local economies" (Pedersen and Kweka, 2017:219). Collectively, these legislations seem to offer a viable corrective to Tanzania's hitherto shallow and mostly untested oil and gas regulatory system.

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The translation of these regulations into effective programs directly benefiting local communities, presents important governance-related challenges (cf. Choumert-Nkolo, 2018; Fjeldstad and Johnson, 2017; Melyoki, 2017; Poncian, 2018). As Lee and Dupuy (2018:86) argue, "there is a strong risk that corruption and elite capture could [still] threaten the translation of petroleum revenues into general welfare improvements" (see also Scurfield et al., 2017).

As discussed in this paper, these challenges have been particularly acute in Mtwara, a coastal region close to Tanzania's border with Mozambique, where many of the new natural gas discoveries and extraction activities have taken place. Significantly, the gas extraction activities are being conducted inside the Mnazi Bay-Ruyuma Estuary Marine Park (MBREMP), a 650 km^2 marine protected area, raising serious environmental and social justice-related concerns (Kamat, 2014, 2018). How do people in rural Mtwara interpret and experience the natural gas project in the context of their everyday lives? How have the gas extraction activities affected their livelihoods, food security, development expectations and hopes for a better life? What can be done to ensure that the gas project also brings economic and social benefits to the rural communities in the Mtwara region that are directly or indirectly affected by it? So far, the literature provides limited empirical data on the immediate and long-term social and economic impacts of the gas project on the communities in the gas producing region (see Ahearne and Childs, 2018; Choumert-Nkolo, 2018; Heilman and Jingu, 2019; Kamat, 2017; Must, 2018).

Here, we examine the different ways in which the gas development activities in the rural Mtwara peninsula (population 45,000) have affected several communities that are near the on-shore gas fields and the gas processing plants. Our analysis focuses on the perceptions of a sample of people who have witnessed and experienced the gas projects' impacts on them in the form of displacement and dispossession, infrastructure development, employment opportunities and access to electricity. Our main argument is that the rhetoric of gas-driven prosperity has not translated into reality for the gas project-affected communities because of the centralized character of resource governance, the inconsistent manner in which policies pertaining to natural gas development have been framed and reframed, the unrealistic expectations of prosperity that have pervaded national and local discourses surrounding the gas discoveries, the lack of public consultation, and statedirected violence (see Choumert-Nkolo, 2018; Kamat, 2017; Lal, 2015; Must, 2018; Poncian, 2019).

Following this introduction, we briefly review the literature on gas development in Tanzania, focusing on rural Mtwara. We then describe the methodology used and present key findings from the survey data, followed by excerpts from narrative data derived from in-depth interviews and focus group discussions (FGDs) with the study participants, including key stakeholders. Subsequently, we relate our key findings to the existing body of relevant literature. Our conclusion briefly discusses the policy implications and identifies areas for further research.

2. Rhetoric and reality of investments in extractive sector development

High commodity prices, including a quick rebound following the Global Financial Crisis, resuscitated ideas of commodity-driven development in many developing countries, and also advanced economies such as the US with the 'gas fracking' revolution (Ahearne and Childs, 2018; Canuto, 2014; Willow and Wylie, 2014). The natural resource boom, in turn, translated into a wide array of resource development projects venturing into new locations and communities; a move often initially facilitated by a new round of investment-friendly legal reforms, but also frequently followed by calls for the defense of national interests and greater sovereignty over resources (Childs, 2016). By 2014, however, the boom had turned to bust even for the oil and gas sector. As the supposed 'commodity super cycle' was coming to an end, the limits of extractive-driven development – and missed opportunities – were

evident in many countries and local communities (Le Billon and Good, 2016; Santos, 2018). These 'realities' often contrasted with the rhetoric of development that had marked a decade of promised prosperity. The commodity bust not only drastically reduced the market valuation of many extractive companies, but local communities also bore witness to the mixed impacts that extractive projects had on their lives – with many initial promises of bonanza failing to materialize (Kingstone, 2018; Santos, 2018).

Informed by the developmental failures of previous commodity booms, the latest iteration included commitments towards greater community consultation, corporate social responsibility, and improved resource revenue management (Hilson, 2012). In this respect, the rhetoric of 'investment friendliness' targeting foreign extractive companies generally paralleled with a rhetoric of 'friendly investing' seeking not only to secure 'social consent' among local communities, but also more broadly to gain 'political support' among the broader citizenry (Le Billon and Sommerville, 2017). "Social license" has been pursued through promises of low environmental impacts, high compensation packages, and increased access to electricity, waged labor, schools, and health services. In contrast, broader political support has been articulated around the idea of 'unlocking' natural wealth to accelerate economic growth, greater public revenues, and affordable commodities including energy sources. Still, in East Africa, the gap between rhetoric and reality in the energy sector remains wide; the reasons are complex and do not relate simply to 'greedy' corporations and 'incompetent' authorities. Rather, the gap is related to the very nature of the political economy, and a set of historically embedded cleavages and political processes that maintain local communities in a marginalized position within local and national projects of resourcedriven development.

In the Tanzanian context, scholars have acknowledged the rhetoric surrounding the new, proven gas reserves by emphasizing their impressive size (57 TCF in 2016) and their potential to "turn Tanzania into the third-largest producer of liquefied natural gas (LNG) in the world" (Anyimadu, 2016:24; see also Childs and Ahearne 2018:2; Lange and Kinyondo, 2016:1101; Poncian, 2014:55). On a similar note, Pedersen and Bofin (2015:28) state: "Rents from the single biggest investment alone, a proposed Liquefied Natural Gas (LNG) plant, will dwarf other sources of government revenues." However, these scholars are quick to point out that such positive statements belie the complexities and hurdles that Tanzania must negotiate before actually achieving the "gas powerhouse" status. They acknowledge "that no significant revenue from the gas will be forthcoming until at least 2030" (Anyimadu, 2016:25). Even so, given the global attention that Tanzania has garnered in regard to its proven natural gas reserves, scholars have focused their analytic attention on four key topics: resource nationalism or resource sovereignty (Ahearne and Childs, 2018; Jacob and Pedersen, 2018; Lange and Kinyondo, 2016); local content (Calignano and Vaaland, 2018; Kinyondo and Villanger, 2017); corporate social responsibility and social license to operate (Moshi, 2014), and perceptions of injustice in relation to the promise of gas-for-development (Must, 2018). Land has been a particular focus of attention, especially given Tanzania's statist land tenure regime and the "re-emergence of state-owned enterprises as direct investors in operations and as holders of key infrastructure" (Pedersen and Kweka, 2017:916).

So far, empirical studies conducted in the Mtwara region have highlighted community perceptions of injustice (Kamat, 2017; Must, 2018), and the high hopes and failed expectations (Choumert-Nkolo, 2018). Must (2018), for example, provides a cautionary tale by locating perceptions of injustice among the people of Mtwara in the promises of industrial development that the government representatives, and particularly the former president Jakaya Kikwete had made when he visited the region as part of the 2010 election campaign, which coincided with off-shore gas discoveries in Mtwara. At the time, the proposed Dangote Cement factory in Mikindani was heralded as the harbinger of the anticipated industrialization of the Mtwara region. Ahearne and Childs (2018:15), however, argue that perceptions of gas developmentrelated injustice in Mtwara are rooted in long-standing perceptions of differentiated citizenship and discrimination that are further complicated by "a sense of injustice in which community access to information is lacking [...] and government corruption remains problematic" (see also Lal, 2015). Choumert-Nkolo's (2018:362) study revealed that the people of Mtwara were, for the most part, disappointed with how the gas project had unfolded in their midst; an overwhelming number (84%) of the study participants from the Mtwara Rural district lamented the fact that the gas project had not met their expectations. This was particularly true regarding employment opportunities that they were initially promised - thus highlighting the potential gap between expectations and actual benefits. As shown below, our study findings corroborate several of these findings surrounding expectations and their non-fulfilment. We document diverse voices from the margins, particularly of those who live in the gas project's technological core zone, and we also highlight women's perspectives on the gas project, and their concerns regarding its impacts on their lives.

3. A brief history of natural gas extraction in rural Mtwara

In 1982, the Italian oil company AGIP discovered natural gas deposits in Mnazi Bay in coastal rural Mtwara, southeastern Tanzania. However, it was not until 2004 that actual production for domestic consumption (mainly gas-fired electricity) began in earnest when Artumas, a Canadian independent energy producing company, set up operations in the Mnazi Bay area (Kilonzo and Kontinen 2015). As Pedersen and Bofin (2015:40) note, "it was the production of electricity for local consumption that finally led the way to the commercial production of gas." The development of gas finds in the Mnazi Bay concession area was pursued through junior company Artumas, which became Wentworth-Resources in 2008, and was sold out to Maurel and Prom (M&P) in 2009. Between 2009 and 2012, when additional off shore gas deposits were discovered, the "gas rush" involved about 20 oil and gas companies, including major International Oil Companies such as BP, ExxonMobil, Ophir, Petrobras, Shell, and Equinor (formerly Statoil).

Beginning its drilling operations in the Mnazi Bay area in 2005, Artumas had offered to adequately compensate the villagers for farmlands, including coconut and cashew trees lost to the project. In community meetings, Artumas representatives had also promised to refurbish roads, schools, upgrade the village dispensary, and provide free electricity to all the households in the affected villages, from the 12 MW gas-fired power plant that it would build in Ruvula to serve Mtwara and Lindi. The company also promised to create employment opportunities for approximately 1000 Tanzanians, though not necessarily local residents and many on a temporary basis (Artumas, 2005). Assured of the social license to operate, Artumas drilled a few exploratory wells off shore and on land. The company constructed gas processing facilities, a 27-km marine and terrestrial pipeline, a gas receiving facility and a 12 MW gas-fired power facility in Ruvula.

The discovery of new gas deposits in 2009 led to the project's rapid expansion under M&P. It is expected to transform the Mtwara region and the Lindi region, where the government plans to build a (so-far stalled) two-train LNG project with an estimated investment of US\$30 billion (Peng and Poudineh, 2017). A 540 km pipeline to transport gas from the Mnazi Bay gas fields to Dar es Salaam was completed in October 2015. Funded by a concessionary Chinese credit of US\$1.2 billion, the pipeline is owned and operated by the Gas Supply Company (GASCO), a subsidiary of Tanzania Petroleum Development Corporation (TPDC). The pipeline's construction and the government's decision to transport a substantial volume of the gas extracted from Mtwara to Dar es Salaam proved very controversial, with protests, threats of secession and state-directed violence taking place in Mtwara in 2013. The protests and their underlying causes received a lot of attention from the national and international media (see Poncian, 2018), with scholars alluding to the "longstanding sense of marginalization from 'national' development that is prevalent in southern Tanzania" (Ahearne and Childs, 2018:3) and "natural gas mismanagement and subsequent leadership framing that exacerbated group grievances" (Must, 2018:85).¹ The protesters' calls to secede Mtwara from the Tanzanian nation under the banner *tugawane nchi* (let's divide the country) attracted a lot of media and scholarly attention. As Ahearne and Childs (2018:13) have argued, however, protestors used the threat mostly "as a response to the inequitable distribution of gas reserves [...] a tactic to attempt to gain a better outcome for the region than a serious demand to rupture the existing political order." The tactic largely backfired. As Poncian (2019:85) notes, the Minister for Home Affairs at the time described the protesters as traitors and secessionists and effectively "provided the government an excuse to deploy the military and suppress them."

Amid a catalogue of controversies and corruption scandals, the Tanzanian government forged ahead with the gas project. The former president, Jakaya Kikwete, inaugurated the gas pipeline on October 12, 2015, just two weeks before the general elections on October 25, 2015 (Kamat, 2017). Tanzania's current president, John Magufuli, also from the same party, renewed his government's commitment to the gas project, including the proposed mega LNG processing plant in Lindi, an industrial park, and all that it represents in terms of industrial development and the country's Vision 2025 programmatic goals (Jacob and Pedersen, 2018).² We conducted our empirical study in this context of the Tanzanian government's efforts to portray the gas project in a positive light under the slogan "gas for development." Our goal was to document people's lived experiences and analyze the nature of social transformation as experienced and expressed by communities directly or indirectly affected by the natural gas project in rural Mtwara.

4. Methodology

Following a detailed review of the academic literature on the social impacts of the gas extraction industry/projects in East Africa and Tanzania in particular, we reviewed policy documents and annual reports of key companies - Artumas-Wentworth and M&P. We then conducted a series of interviews in KiSwahili and a pilot study in rural Mtwara in July and August 2015 to design and test our survey instrument, which was translated from English into KiSwahili. After finalizing the survey instrument and interview questions, we conducted a household survey, which included 75 questions in total,³ in-depth interviews and FGDs in KiSwahili in rural Mtwara between July and September 2016, followed by interviews (in KiSwahili and English) with government officials, (former) gas company officials and NGO representatives in Dar es Salaam and Mtwara. The survey, and in-depth interviews, took between 40-60 minutes each to complete, while the FGDs lasted between 60-80 minutes. Using an interview schedule, we gathered data on the study participants' demographic and household background, household composition, household assets, land ownership, land and other livelihood assets lost to the gas project, access to electricity, employment opportunities, whether people were informed well in advance about the gas project, their participation in the decision making, compensation received, and whether the gas project has worsened, improved or had no impact on their lives.

¹ Allegations of "mismanagement" were complicated by the fact that a few years before the Mtwara protests, the country's energy sector, especially in the context of electricity-generation, was mired in protracted controversies and major corruption scandals (see Anyimadu, 2016; Gray, 2015).

 $^{^2}$ It is possible that President Magufuli's government has put the LNG project on the back burner, at least tentatively, in order to focus its attention on the proposed 2,100 MW Rufiji Dam and Power Plant in Stiegler's Gorge. Media reports suggest that the Arab Contractors Company has received a contract to design and construct the dam and power plant.

 $^{^{3}}$ A copy of the interview schedule in English and KiSwahili is available on request from the corresponding author.

Table 1

Number of households surveyed in each of the ten villages.

Villages	n	%	Villages	n	%
Ruvula	75	8.9	Mtendachi	68	8.1
Mtandi	92	10.9	Majengo	160	19.0
Mngoji	107	12.7	Nalingu	66	7.8
Namindondi	71	8.4	Namera	29	3.4
Milamba	52	6.2	Msangamkuu	121	14.4
			Total	841	100

We conducted a sample survey of 841 households, randomly selected from 10 villages in rural coastal Mtwara (see Table 1 and Fig. 1).

This number represents approximately 20% of the households in each of the ten surveyed villages. For reasons of gender considerations, we decided to survey at least 25% of the households with a female respondent. In total, 275 (33.70%) women and 566 (67.30%) men were surveyed.⁴ We then conducted in-depth interviews with 32 individuals (16 men and 16 women) and four gender-specific FGDs, involving a total of 12 men and 12 women, in two villages - Ruvula and Mngoji where the gas infrastructure (gas wells and gas processing plants) is highly visible. During in-depth interviews and FGDs, participants expressed their perceptions of how the natural gas project and related infrastructure had affected their land rights, right to information, compensation, infrastructure development in general, and employment opportunities.

We recorded all the interviews and FGDs on digital audio-recorders with the study participants' prior permission. After transcribing them verbatim in KiSwahili, we read through the transcripts and the associated fieldnotes to identify patterns relevant to the questions that were asked. Based on the patterns noted during the iterative process of reading the transcripts from the FGDs and interviews, multiple times, key phrases and segments were identified, which were highlighted, extracted and translated into English for analysis. Topical and thematic codes were applied to analyze the transcripts. Representative quotes have been included in this paper to illustrate key points. For the survey data, we entered the raw data directly into IBM- SPSS – Statistics 24, cleaned and processed the data with the help of two research assistants and a statistician from the University of Dar es Salaam. All the necessary ethics clearance certificates and research permits were obtained prior to the conduct of this study.

5. Findings and discussion

People in rural Mtwara who were consulted during the pilot study in 2015 expressed concerns regarding three topics: (1) compensation related to the land and trees they had lost to the project; (2) expectations of employment opportunities, and (3) infrastructure development, including schools, improved roads and electricity. Based on the initial findings, we gathered quantitative and qualitative data on these specific topics. The 2016 household survey revealed that the average age of the respondent was 51.5 years (age range = 18-75+); 566 (67.3%) were male, and 275 (33.7%) were female; the average household size was 4.66 with a range of 1 to 15+ (SD = 2.12); 572 (68%) of the respondents were married; 70 (8.32%) were unmarried, 99 (11.77%) were either divorced or divorcees, and another 100 (11.89%) were either widows or widowers; 806 (95.84%) identified themselves as Muslims, and a minority – 35 (4.16%) identified themselves as Christians; more than half the households were living in poverty or

conditions of extreme poverty (household income less than Tsh 3000 or \$1.5/day). Educational attainment in the sampled households was low; less than 5% of the study population had gone beyond primary school (standard 7). Although the sampled villages were 'coastal villages,' farming was the primary occupation for most of the villagers, followed by artisanal fishing. However, there was significant occupational diversity in the region and between villages; people were engaged in more that 30 different occupations and avocations. Only 25% of the households had access to electricity. Notably though, 16.5% of the households were dependent on off-grid solar power/panels, only 8.5% of the households had access to wired (grid) electricity provided by the Tanzanian Electric Supply Company (TANESCO).⁵ These figures are significantly lower than the national average for rural Tanzania. The survey revealed that about 71% of the households in the sampled villages owned land (customary occupancy right), and nearly half owned 3 ha or more of farmland. Of those who owned land, 15% of the sampled households had lost at least some of their farmland to the gas project. Nearly three quarters (73%) of the survey respondents indicated that the gas project had directly or indirectly affected their lives - positively or negatively. While 46% of the respondents indicated that they had directly or indirectly benefitted from the gas project (electricity, jobs, cash compensation, boost to business/petty trade), 24% indicated that the gas project had dispossessed them of their livelihood assets (see Table 2).

About 16.5% of the respondents stated that they had noted a degradation of natural resources – fishing grounds, mangroves, farmlands – in their respective villages in the last few years. They attributed these to the presence of the gas project's infrastructure and gas processing activities.

In-depth interviews and FGDs provided a more nuanced understanding of people's perceptions regarding the gas project and their lived experiences as they grappled with the realities of the rapidly expanding gas project's infrastructure. Many villagers spoke favorably about how Artumas had conducted itself in relation to its gas extraction activities in the Mnazi Bay area, particularly regarding compensation and employment opportunities. At the time, Artumas had referred to World Bank and International Finance Corporation standards for land acquisition and resettlement (Artumas, 2005; Pedersen and Kweka, 2017:220). While Artumas claimed that it had indeed fulfilled its promise that it would employ hundreds of Tanzanians on the gas project,⁶ several villagers confirmed that nearly all the new jobs that were created during the project's initial stages were temporary in nature, lasting from a few days to a month or two. Villagers were, however, more disappointed with TANESCO who they believed had interfered and thwarted Artumas' promise to provide free electricity to the projectaffected villages. As will be explained below, these allegations were the result of poor communication between TANESCO and the project-affected communities.

Through their narratives, people expressed their disappointment with the gas project as it had evolved over time, especially since M&P took over from Artumas-Wentworth. In 2014, many residents were perplexed by M&P's decision to pay a much lower compensation rate per square meter of land lost to the project (Tsh 250), as compared to Artumas, which had paid them nearly five times that rate, eight or nine years earlier (Tsh 1170). Given the high inflation rate in Tanzania, and the diminishing value of the Tanzanian Shilling, many villagers

⁴ The number was calculated from the total sample size of a village, out of which 25% was reserved for female headed households. Thus, depending on the size of the village-level sample, the actual number of female respondents who constituted the 25% varied from village to village.

⁵ TANESCO remains the primary company that owns and operates downstream power sector infrastructure (Peng and Poudineh, 2017:52).

⁶ In December 2004, Artumas began operations on Phase 1. At a cost of US \$9.5 million, the phase included mobilization of a 100-person camp, and sourcing well service and seismic equipment from 14 countries. While active, Phase 1 employed 600 people; 480 were Tanzanian. During Phase 1, Artumas completed the re-entry, completion and testing of the Mnazi Bay #1 well, originally drilled in 1982 by the Italian National Oil Company (AGIP) (see Artumas Group Inc, 2005).

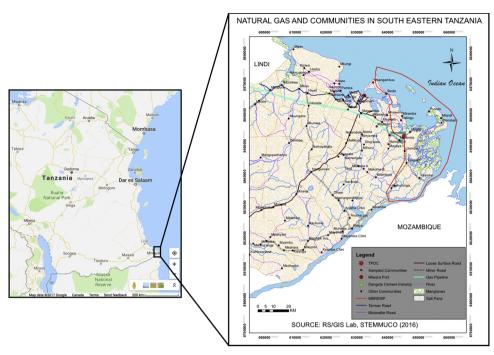


Fig. 1. Map showing study villages.

Table 2Whether dispossessed of livelihoods by the gas project.

	Yes	No	Ν		Yes	No	N
Villages				Villages			
Ruvula	32	43	75	Mtendachi	22	46	68
Mtandi	38	54	92	Majengo	21	139	160
Mngoji	26	81	107	Nalingu	16	50	66
Namindondi	20	51	71	Namera	7	22	29
Milamba	9	43	52	Msangamkuu	6	115	121
				Total	197 (23.4%)	644 (76.6%)	841

emphasized that the new compensation payout was worthless. The government evaluators who determined the compensation rates had used national standards instead of international standards for acquisition of land for 'public purpose' for fear of "setting a precedent" (see Pedersen and Jacob, 2017:920). However, they initially did not adequately inform or educate the people in the project-affected villages about the reasons why they were being offered significantly lower compensation rates.

Many lamented the fact that the new gas company (M&P) had promised them a lot but had provided very little in terms of compensation for land and trees (coconut and cashew) that were lost to the project. Residents also complained that the gas company did not pay them for the road it cut through their farms. One female participant, whose farmland was affected by the gas pipeline, explained:

They said that only if they came across a tree on the land that was being used to bury the pipeline, they will compensate for the tree but not for the land [...] They have already taken so much of our farm land and they want more. So really, we haven't benefitted from this project at all.

The above quotation reveals the complexity underlying the mandatory acquisition of land for national projects in Tanzania, and the inconsistent communication between the government, company representatives and the project-affected people over land acquisition and compensation. In the study villages, people were aware that only a few years earlier, Artumas had paid compensation for both land and the trees that had been felled in the process of gas infrastructure development. Therefore, they felt even more aggrieved by the new company's refusal to pay them a fair compensation rate for both land and the trees lost to the expanded project.

Villagers commented on the difficulties they faced because of the government's "interference" in the gas company's CSR-related promises. One middle-aged female participant said: "The gas project will drive the nation's economy, but it will not help us in any significant way. I think it's the government that does not want us to benefit from the project." Participants from Ruvula were troubled by the fact that despite being at the core of the technological zone (the gas extraction infrastructure) they had not received any tangible benefits from the gas project. They had not even received electricity at the time of data collection, even though people in villages and towns several miles away were provided with electricity from gas-fired power plants. One middle-aged male participant from Ruvula blamed party politics in the region for why the people of Ruvula were neglected. He said:

This gas project belongs to CCM [ruling party]. They have done nothing to help us because we support CUF [opposition party]. Our political leaders do not come to discuss anything with us because they know that no one from our village will go to receive them. So they drive straight past us to the gas plant. We are suffering here because we have been squeezed by party politics. If we were CCM supporters, instead of CUF, then of course, we would have seen development (*maendeleo*) in our lives, because in places where people have supported CCM, they are thankful, they have seen development, but here, no one remembers us, no one cares for us.

Many study participants echoed the above respondent's sentiments regarding "patronage politics" (loyalty to the hegemonic CCM party versus the opposition CUF party) and the ruling party's "punishment strategy" as the reason why they had not seen tangible benefits from the gas project (see Weinstein, 2011).⁷ Others (CCM supporters) dismissed

⁷ As Laura Weinstein (2011:54) has cogently argued, "a punishment strategy is a more effective strategy of increasing vote shares in Tanzania due to voters' lack of viable opposition alternatives and reliance on government resources to improve their wellbeing."

this interpretation by pointing to the fact that many of the CUF-dominated villages on the peninsula had indeed received electricity and other infrastructure developments, including a piped water supply system.

As noted earlier, people who had lost their farmlands to the project claimed that they had not been adequately compensated for their losses under M&P. Their disappointment with compensation-related matters, was due, in part, to limited information they were provided and widespread misunderstanding regarding procedural rights and compensation eligibility in the context of compulsory acquisition of land by the Tanzanian government for national projects. As Pedersen and Kweka (2017:219) note, "all land in Tanzania is public land that is vested in the President on behalf of all citizens. Furthermore, the Land Acquisition Act of 1967 only grants compensation for 'improvements' of the land [...] not for the land itself. This has, over the years, disadvantaged customary rights-holders, who have found it difficult to prove that they had improved the land value."8 Additionally, the recently-revised Petroleum Act of 2015 "states that subsurface mineral resources belong to the state, which may grant the right to extract resources to other actors than the surface land-holder " (Pedersen and Kweka, 2017:219 see also Pedersen, 2016).

Those who had lost their farmland and intergenerational trees to the gas project were simultaneously concerned about the economic loss they had incurred and the actual and impending environmental damage that the gas project had caused. They were particularly concerned about the gas pipeline buried along the ocean front, with thousands of coconut and cashew trees uprooted for preparing the 50-foot-wide right of way. Villagers asserted that they had sacrificed their livelihood assets in anticipation of wage-earning opportunities for themselves and their children. Consequently, several respondents emphasized that it was the gas project's responsibility to provide gainful, long-term employment to the village youth.⁹ One participant from a women's FGD had this to say:

Our youth are still living in their homes without proper employment, so we don't know how this project is going to bring us development. If this project is meant to bring development for people who are living elsewhere in Tanzania [Dar es Salaam, Bagamoyo], then it's going to bring development for them, but not for us; we haven't seen any development from this project so far.

Both men and women in the study villages were disappointed with the gas project's inability to provide continuous employment to the village residents, especially to the young men, who were counting on the gas project for employment. Another female study participant expressed her own employment concerns during an interview:

If I can get some employment or work here in this village, that would be very nice, but they say that they will not be employing women on the gas project [...] No, women have not found any work on the gas project. They say they don't want women to work on the gas projects, so there's no employment for women.

Clearly, villagers' disappointment with the lack of long-term employment opportunities on the gas project was in part due to the "jobs rhetoric" that political leaders had used to promote the gas project in the rural Mtwara region at the time. However, as Hilson (2012:134) notes "the reality is that both large-scale mining operations, and oil and gas projects are capital-intensive and therefore, capable of providing only a handful of jobs in the best of cases." This reality is certainly apposite with regard to the Mnazi Bay gas project; it has left many people disgruntled in the project-affected villages.

Additionally, as study participants explained, the gas company had

employed about 10 villagers on the project, most of them on a temporary basis for one or two months. By contrast, most of those who worked on the project on a long-term basis were from Dar es Salaam and Arusha, some of them local people's relatives. Most were initially employed as drivers, but they learned other skills, such as handling an earth mover/digger, during their spare time. This meant better paying skills which, in time, allowed them to move up and become crane operators or control room operators. Thus, interviews and FGD with local residents revealed their deep sense of relative deprivation – while outsiders were given well-paying, long-term jobs, local residents were given only temporary, menial jobs. As one male study participant put it: "This is a big project and I'm really upset that we don't have a single person in this village who is an expert in any of the works related to the gas project." Elaborating on this point, one male participant in a FGD said:

Workers bring their relatives and friends from Dar es Salaam and Arusha and find employment for them in the company. We know that this project does not belong to the people of Mtwara alone, but the whole of Tanzania. But *we* have lost our resources and livelihoods because of the project so they should give first preference to our youth and employ them on the project. No one from my family has benefitted from the project.

In the above quotation, the narrator makes two assertions. First, contrary to the popular perception (especially following the 2013 protests discussed earlier), that the people of Mtwara had fought the government to keep the gas in Mtwara, the narrator acknowledges that the project belongs to the entire country, and that it needs to be shared with fellow Tanzanians. Second, the narrator insists that as far as employment opportunities are concerned, the government/gas company should give first preference to the local youth, for it is their families who had sacrificed their land and other livelihood resources to the project, in the hope that they would be offered long-term jobs in return. In other words, a moral claim is made to justify why the government should create jobs and employ the local youth on the gas project.

The above participant's concern regarding youth unemployment needs to be put into context. Tanzania's status as a country with a population with very low employability and basic job market skills, has been well documented (Anyimadu, 2016; Lee and Dupuy, 2018). Accordingly, the government, in collaboration with development partners and gas companies (StatOil, Exon) has responded to the demand in local skills for the growing gas industry through training programs. Some of these programs target the current gas exploitation, while others focus on the planned LNG plant to be constructed in Lindi region. The main objective of these training program initiatives is to invest in training and skills provision to the youth in Lindi and Mtwara regions to enhance their employability in the gas sector and related areas. During the data collection period (August - September 2016), beneficiary administrative wards were selected according to an assessment of the major impact on youth. However, none of the wards were in the core gas extraction project area. Thus, the practice of enrolment for the "local youth training programs" did not consider prioritizing youth from the gas producing area. Consequently, this only added to the complaints from people who live in the gas producing area, that many of these initiatives to promote youth employment were further marginalizing them rather than including them in these initiatives.

In summary, while the project had affected a large number of the study participants, directly or indirectly, negatively or positively, local sentiments about the gas project were predominantly negative. The two main concerns emanating from the interviews and FGDs, were 1) the unfairness of the compensation that was paid out (or yet to be paid) to the project-affected people, and 2) the promise of gas project-related employment that was not fulfilled. These key findings corroborate the relevant results of other studies conducted in the Mtwara region (cf. Ahearne and Childs, 2018; Choumert-Nkolo's, 2018; Pedersen and Kweka, 2017; Poncian, 2018), other regions of Tanzania (Maganga and

⁸ See <u>Pedersen and Kweka (2017)</u> for an analysis of compulsory acquisition of land for petroleum investments in the Tanzanian context.

⁹ For similar findings regarding employment opportunities, see Choumert-Nkolo, 2018:364).

Jacob, 2016; Jacob, 2018), and also other African countries (Ablo and Asamoah, 2018).

5.1. Key stakeholders' perspectives

Key stakeholders representing the oil and gas industry, government and non-government organizations in Dar es Salaam and Mtwara who participated in this study also expressed their concerns regarding the gas project. Through their interviews they described how the gas project in Mtwara was introduced in a top-down manner, initially by ignoring local people's land-related tenure, and the local leadership in general.¹⁰ According to one official from the Mtwara Municipal Council, much to people's disappointment, gas exploration activities were conducted under government directives with little regard for social and cultural considerations. Another official representing the Mnazi Bay-Ruvuma Estuary Marine Park (MBREMP) indicated that the government was also not transparent on the impact of gas extraction on the coastal and marine environment and its eventual impact on people's livelihoods. Gas exploration may have altered the natural environment or the natural base (fishing areas) that people have relied on for their livelihoods. The government also did not engage with the local communities to find out the extent to which community members were willing to protect the infrastructure, inshore and offshore. The stakeholders also noted that these issues could have been dealt with amicably and cooperatively if the relationship between the gas companies and the project-affected people was dialogic. They also pointed out that people were disgruntled with the government and the gas companies because they had seen very little gas project-related employment opportunities, women's income generating activities, and social service infrastructure.

As noted earlier, those who lived in the affected villages believed that they would be provided with free electricity through the gas-fired plant in Ruvula; that's what Artumas had promised the local villagers, until TANESCO "interfered" and dashed their expectations. However, according to a TANESCO representative from Mtwara who participated in this study, the Government of Tanzania had entered into an agreement with Artumas, which allowed it to explore and extract natural gas, but not to sell the gas nor the electricity that would be produced through the gas-fired plant in Ruvula. Importantly, Artumas did not have the technical and infrastructural capabilities to sell electricity. TANESCO was eventually left to "pick up the pieces" and try to expand the electric connections through various incentives. As such, it gave priority to rural communities and households directly affected by the gas pipeline. Between January 2016 and July 2016, the government gave an incentive by offering to reduce the normal connection charges to TSh 99,000 for the first 4000 customers. However, the pace of subscription was low. Eventually, the connection charges were reduced to Tsh 27,000 through the Rural Energy Agency.

A Mtwara District Council representative elaborated on how the planning and implementation of the gas project was highly centralized. The District Council was more of a recipient of instructions from TPDC and the Ministry of Energy and Minerals, than a partner in local development. According to the representative, officials did not have a meaningful consultative forum. TPDC would hold on to (*ina hodhi*) information, instead of sharing it with other government agencies and local government officials. The representative claimed that initially, TPDC did not even consult with the District Executive Directors on important issues such as the construction of the gas pipeline. This was contrary to the initial expectations and the enthusiasm that was generated for Mtwara through the well-advocated "gas for development" slogan.

There were other unresolved issues pertaining to the gas projects in Mtwara district, especially those concerning local benefits. One local government official explained:

People make many incorrect assumptions about the people of Mtwara – that they are stubborn, but those who make such assumptions do not listen to their concerns. The people of Mtwara have suffered neglect from various national governments for a very long time, and they have been taken advantage of through several interventions such as the Mtwara Corridor Development project, the Mnazi Bay-Ruvuma Estuary Marine Park (MBREMP) and now, this gas project. All these projects have been implemented in the same area along the coast, and yet the national government has not heeded to local people's concerns and complaints.

As the official alludes to in the above quotation, the overall disappointment with the gas project among the people of Mtwara emanates from multiple reasons, including the much discussed and documented historical "neglect" and marginalization of the people of Mtwara in national developmental discourse (Ahearne and Childs, 2018; Lal, 2015). In other words, the people of Mtwara have been once again misunderstood, sidelined, subjugated, and neglected (see Poncian, 2019; Raycraft, 2019).

6. Conclusion and recommendations

The dominant sentiment that the natural gas should be used for the benefit of the entire nation, for present and future generations, and not just for the benefit of the elite class, remains integral to the enactment of revised policies in 2015 and 2017. Voices from the villages covered by this study, however, do not reveal a positive picture of the gas project's social impact on local communities. The rural coastal Mtwara region has once again been putatively neglected and marginalized in the national quest for economic development (Kamat, 2017). The unrealistic promises of development and prosperity made by politicians and the ruling party officials to the people of Mtwara have not materialized. And in the current political ethos in which the "government crackdown on media, opposition and dissident voices in the country [...] has created panic and fear among the populace" (Poncian and Kigodi, 2018:118; Paget, 2017), it is even more important to document and analyze local concerns regarding the gaps between the rhetoric and reality surrounding the gas project.

While this study did not specifically examine whether the presence of the gas project has increased social and economic inequalities, the data on access to electricity (some could afford it, others could not) suggest that inter and intra-community inequalities are likely to increase over time. The data also revealed that the study villages were heterogeneous and varied in terms of assets, access to resources and political power. People in Ruvula, for example, believed that the government (ruling party) was deliberately neglecting them because of their political affiliation, while rewarding the people in Msangamkuu village, a CCM stronghold, also located on the same peninsula, with a motorized ferry, an all-weather road and piped water. Many study participants were disappointed with the gas project because instead of creating opportunities for local employment (as was promised and anticipated), it had pushed vulnerable households to the brink of desperation. Failed promises associated with gas development seem to have done more damage than good to the communities, entrenching them into a historical experience of regional marginalization rather than elevating them into the lead role for prosperous national integration.

For this situation to change, political leaders and project managers must make deliberate efforts to adhere to the principles of social and distributive justice (including procedural justice) as outlined in the country's revised gas policy, and to recognize and redress the social and economic disruption that the gas project may have caused, especially in coastal Mtwara (Kamat, 2017). Despite protests and litigation, the

¹⁰ As Pedersen and Kweka (2017:218) note, "land rights-holders are typically little involved in petroleum operations, and procedural rights related to information, participation and compensation in processes of the compulsory acquisition of land are often limited."

compensation rate offered to the project-affected people in the study villages remained minimal. It follows that if the national government is serious about making its "gas for development" slogan a reality, as a first step, it needs to listen to the concerns and complaints of the people of Mtwara and address them through dialogue and consultation, rather than through violent suppression as was witnessed during the 2013 protests.

One of the important issues that emerged from our study was the lack of effective pathways for communication between the government, private stakeholders and the project-affected communities. Consequently, communities formed expectations that diverged from their lived realities during the project's implementation and expansion. They expected immediate benefits in the form of increased employment, economic prosperity, displacement compensation, and electricity. However, as the key stakeholder interviews revealed, these socioeconomic benefits were difficult to realize in practice because of logistical constraints, the complexities of state-private partnerships, and the multi-year time frame needed to monetize the gas. Many of the concerns voiced by the project-affected communities could have been resolved at the start of the project, and throughout its implementation, if project stakeholders were able to reconcile community expectations with projected deliverables through effective lines of communication. Instead, over-inflated rhetoric mobilized by political leaders and government officials raised people's expectations to unrealistic levels, setting the stage for community support for the project to erode quickly.

To remedy this, government officials and company representatives must foster multi-directional lines of communication with affected communities. To this end, we propose that participatory multi-stakeholder educational workshops be organized on an ongoing basis through the Mtwara Municipal Council and local umbrella NGOs, such as the Mtwara NGO Network (MtwangoNet) and Kikundi Mwamvuli Mtwara (Mtwara Umbrella People's Organization) (KIMWAM). These workshops will allow space for community members to express their concerns and for government officials and company representatives to provide clear and correct information to communities regarding landrelated compensation and other grievances. We further recommend that a network of stakeholders, including academic researchers, be formed to document, monitor and analyze the on-going impact of the gas project on communities. This network can inform the government and gas companies on how to translate policy provisions and political rhetoric into concrete programs and interventions that benefit projectaffected communities.

Given Tanzania's ambition to become a leading exporter of liquefied natural gas from East Africa to Asia, those at the helm should make genuine governance interventions to improve the livelihoods and wellbeing of project-affected communities. Local concerns over social and environmental justice, corruption, and incompetence should be considered on the same footing as state-level economic development to ensure that vulnerable people are protected from political marginalization. Through further long-term research on the socioeconomic impacts of the gas project on the people of rural Mtwara, future policies can be specifically tailored to address context-specific problems as they emerge. Until then, however, the Government of Tanzania will continue to struggle with its attempts to translate the rhetoric of gas-driven community development into empirical reality, despite its laudable legislative reforms.

In conclusion, we propose that additional longitudinal research is needed to document and analyze the long-term impacts of the displacement and dispossession that has taken place in the rural Mtwara region because of the gas project. Research is also needed to document how electrification in rural Mtwara has, over time, stimulated social and economic transformation particularly in the project-affected villages. Finally, given that the gas project is slated to be expanded and integrated into the proposed LNG plant in Lindi, there is a need to document and analyze the shifting views of all key stakeholders in Tanzania, including local communities and those representing the industry, government, conservation organizations and civil society, especially given their different legal rights and political capacities within Tanzania's extractive sector.

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