The reality of local community participation in the natural gas sector in southeastern Tanzania

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ABSTRACT
The production of natural gas in Tanzania has contributed to national socioeconomic development. It is responsible for about 57% of the total generated electricity in the country. Despite a growing body of literature in this sector, little intellectual attention has been given to how local community members participate in and profit from this sector through an articulated engagement mechanism, employment and other benefits. Using a mix of qualitative research methods, we studied two gas-producing locations of Msimbati and Songosongo in south-eastern Tanzania. Findings suggest inadequate local community participation. Belated and fast local community engagement by the government and gas companies resulted in unmanageable expectations to local communities. Hopes for more local employment opportunities dwindled as gas projects entered the production phase that required skilled workers. Stakeholders were unprepared without a gas sector institutional framework. Local communities have failed to tap the potential to produce and supply foodstuffs to gas companies. This has further restrained their potentially meaningful participation in this sector. Benefits emanating from gas activities have appeared inequitably shared among stakeholders. We call for well thought local community engagement approaches, equitable benefit-sharing modalities and local community preparedness to promote meaningful local community participation in the natural gas sector.

1. Introduction

Meaningful local community participation in the natural gas sector and extractive industries (EIs) in general receives much emphasis (Poncian and Jose, 2019; Bishoge et al., 2018; Pedersen and Kweka, 2017). In 1974 following oil and gas exploration activities that began in 1952, the first discovery of natural gas reserves was made in Tanzania, in the small Island of Songosongo located off the coast of Kilwa District in the Lindi region, in the south-eastern part of the country. In 1982, another discovery was made in Mtwara rural district in the Mnazibay - Msimbati ward (Kinyondo and Villanger, 2017; Demierre et al., 2015; Katunzi and Siebert, 2015). However, infrastructure problems, lack of local market, and the infeasibility of export-related production because of limited reserves impeded significant development of the resource at that time (Deloitte, 2014; Gratwick et al., 2006). In the 1990s, oil and gas exploration saw little activity in Tanzania (Isaksen et al., 2017), but between 2010 and 2014 a series of offshore explorations resulted in the discovery of more than 50.5 trillion cubic feet (tcf) of natural gas. By 2017, natural gas discoveries reached an estimated total of 57.55 tcf (Henstridge, 2018; Kisamo, 2018; Mirondo, 2018). These discoveries have had direct implications on the wellbeing of local communities in the gas-producing areas. This is because besides being stewards of the gas infrastructure (United Republic of Tanzania-URT, 2013; 2014), local communities are exposed to potential gas project impacts on health, safety, environment, livelihoods, and social relations (URT, 2013; Zeeuw and Kuschminder, 2016). This demonstrates the importance of understanding how local communities participate in and benefit from this sector.

In 2013 and 2014, the Tanzanian Government developed the national natural gas policy (NNGP) and the local content policy (LCP) for the oil and gas industry, to expose opportunities for nationals in the sector (Kinyondo and Villanger, 2017) and to provide a framework for guiding the development and growth of the gas industry and ensure optimal benefits to the nation and its citizens (URT, 2013; 2014). Before these policies, oil and gas issues were only included as part of the 1992 national energy policy that was reviewed in 2003 (Materu and Mussa, 2003).
In the 18th century Rousseau articulated the theory of participation, positing that participation was more than a method of decision making, but a process whereby an individual developed responsiveness for another’s point of view and learned to take account of the public interest to gain cooperation (Mansuri and Rao, 2013). Participation was viewed as an important educative function by which becoming a public citizen was taken into account. Strong organizational structures are also important because weak ones render local communities unprepared to participate in the oil and gas projects (Zeeuw and Kuschminder, 2016), consequently leaving them unable to engage with extractive companies and benefit from these projects. The principles underlying community participation suggest that the processes should (Christian, 2016; Zeeuw and Kuschminder, 2016; Wilson et al., 2016):

- be initiated early before major decisions are made;
- be sustained to build trust amongst participants;
- be well planned such that stakeholders know the aims, rules, organization, procedure, and expected outcomes;
- support laypersons and other community members willing to participate, including adequate information dissemination and capacity-building;
- occur at the most appropriate level of decision-making: notably policy, plan, or project level;
- be open and transparent;
- be context-oriented by adapting to the cultural, social, and economic dimensions of the impacted communities.

The foregoing principles make the participation process in the EIs inclusive and meaningful by creating adequate time and knowledge for local communities about the natural gas sector, benefits, and associated costs. They underscore transparency and accountability in the EIs and could also allow EIs companies to secure a social licence to operate (SLO), create local ownership, and ensure sustainability of EI related projects. This will eventually contribute to good governance of the natural gas sector and EIs in general.

3. Extractive industry and local community participation: a background

The concept of community participation in Tanzania can be traced to the 1960s when Julius Nyerere, the first president of Tanzania, initiated the policy of self-reliance to obligate Tanzanian citizens to contribute to the development of the nation (Marsland, 2006; Mwiru, 2015). This concept has often been viewed in terms of “cost-sharing” and the involvement of communities in implementing development interventions, a perspective maintained over the years (Marsland, 2006). However, the participation process has been reconceptualised and evolved over the years through policy reforms where the participatory role of local communities is further acknowledged. For instance, one of the objectives of the National Community development policy of 1996, was to ensure the full participation of the people in formulating, planning, implementing, and evaluating development plans (URT, 1996). Moreover, paragraph 1.1 of the LCP states categorically that delivery of local benefits to the communities where oil and gas companies operate is an obligation and not an option. Similarly, both National Energy Policy (NEP) and NNGP recognizes the significant role of local communities in protecting the natural gas infrastructure (URT, 2013, 2014, 2015). This implies that the government recognizes the importance of local community participation in decision-making processes (Poncian, 2019a). Nevertheless, it is often challenging or rather a completely different scenario to translate what policy prescribes into real commitment and implementation (ibid.). Above all, in the context of the LCP ‘local’ is mainly taken to imply ‘national’. Consequently, local governments are not empowered to facilitate community participation in shaping relevant national decisions (Ahearne and Childs, 2018; Poncian, 2019a). In turn, this reduces the opportunities for local communities to meaningfully participate and benefit from natural gas resources.

International development discourse has placed community participation in the context of empowerment and facilitation of local decision-making (ibid.). In Tanzania, this participation version gained ground in the 1990s, following the failure of “command and control” approaches in which the authorities relied on enforcement mechanisms to get people
to obey the laws (Elazegui, 2002) governing natural resource management. Ultimately decision-making responsibility for natural resources through policy and legal frameworks such as forestry, wildlife, water, and land was transferred from the central government to local levels (Blomley and Iddi, 2009; Poncian, 2019c). Despite policy directives and recognition of the importance of local community participation in EIs and the natural gas sector in particular, decision making power over the management of these resources and benefit distribution is exclusively held by the central government that still dictates how this ensues (Poncian, 2019a). Indeed, in the context of southern Tanzania regions of Lindi and Mtwara where huge gas reserves have been found, this situation is aggravated by the common claim that over the years the southern part of Tanzania has been deliberately marginalised or ignored by the central government leading to what is perceived as injustice over the distribution of resource benefits (Seppälä and Koda, 1998; Ahearne and Childs, 2018; Must, 2018).

4. Context and methodology

4.1. Context

Our Msimbati and Songosongo study areas are located in the Mtwara and Kilwa districts in Mtwara and Lindi regions respectively. Msimbati (Fig. 1) is within the Mnazi-bay estuary at 10° 21’ 0” South, 40° 26’ 0” East and about 45 km south of Mtwara town and 30 km north of the border with Mozambique. It lies roughly 600 km from Dar es Salaam, the commercial capital of Tanzania where most of the private companies’ head offices are located. Songosongo (Fig. 2) is a small island found in the Kilwa district in the Lindi region. It is located at 8° 30’ South and 39° 30’ East, approximately 25 km off-shore northeast of Kilwa Kivinje and approximately 160 km from Dar es Salaam.

The Mtwara and Lindi regions were said to have been isolated economically since independence. They were referred to as the “Cinderella region of a Cinderella territory” to imply that they are the regions that have been sidelined and that no socio-economic development would emerge from them (Seppälä and Koda, 1998). Encouragingly the recent natural gas discoveries have opened up both regions and may render obsolete the “Cinderella territory” label (Samji et al., 2009). As noted at the outset, natural gas extracted from Msimbati and Songosongo supports the generation of more than half (57%) of the electricity produced in Tanzania (the remainder comes principally from hydroelectric generation, heavy oil, and biomass). Studies (Mesaki and Mwankusye, 1998; Lal, 2015; UNDP, 2017; Kamat, 2017) showed that of the 26 regions in the Tanzania mainland, Mtwara and Lindi are among the poorest with 33.9% and 30% of their populations respectively considered poor.
4.2. Methodology

Our study adopted a qualitative data collection approach in which we engaged focus groups of residents, open-ended interviews of key informants (KIs), and semi-structured interviews of household members. At the household level, we conducted 39 and 20 interviews in Msimbati and Songosongo wards, respectively. We employed a semi-structured questionnaire as a data collection tool for the household interviews and an interview guide for the Key Informant Interviews (KIIs) and Focus Group Discussions (FGDs). Questions for the KIIs and FGDs were open-ended to allow respondents to provide as much information as they could and enable us to probe and ask follow-up questions. KIIs were conducted of 46 KIs that included district council officers, staff of international oil companies (IOCs), representatives of civil society organizations (CSOs), and others (Table 1). Interviewing various stakeholders was important for triangulation such that the same issues could be probed and discussed with different respondents. The interviews were conducted in the Swahili language to capture the right messages from respondents as this is their native language. Each interview lasted for 30–60 min. Of the 46 KIs, 41 were audio-recorded (four from the Tanzania Petroleum Development Corporation (TPDC), four

![Fig. 2. The location of Songosongo ward. Source: The Stella Maris University College, Mtwara, 2019.](image-url)

Table 1

<table>
<thead>
<tr>
<th>Name of organization/category</th>
<th>No. of KIs</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tanzania Petroleum Development Corporation</td>
<td>3</td>
<td>Dar es Salaam</td>
</tr>
<tr>
<td>Gas Supply Company</td>
<td>3</td>
<td>Dar, Mtwara &amp; Songosongo</td>
</tr>
<tr>
<td>District Councils</td>
<td>7</td>
<td>Mtwara &amp; Kilwa</td>
</tr>
<tr>
<td>Community leaders</td>
<td>7</td>
<td>Msimbati &amp; Songosongo</td>
</tr>
<tr>
<td>Maurel &amp; Prom (M&amp;P)</td>
<td>3</td>
<td>Dar es Salaam</td>
</tr>
<tr>
<td>Pan African Energy Tanzania (PAET)</td>
<td>2</td>
<td>Dar es Salaam &amp; Songosongo</td>
</tr>
<tr>
<td>Mtwarra Society against Poverty (MISOAPO)</td>
<td>1</td>
<td>Msimbati &amp; Songosongo</td>
</tr>
<tr>
<td>ACO Co. Ltd</td>
<td>1</td>
<td>Songosongo</td>
</tr>
<tr>
<td>Petroleum Expeditors and Consortium Limited</td>
<td>1</td>
<td>Songosongo</td>
</tr>
<tr>
<td>Knight Support</td>
<td>1</td>
<td>Songosongo</td>
</tr>
<tr>
<td>Land providers</td>
<td>7</td>
<td>Msimbati</td>
</tr>
<tr>
<td>Local gas companies or contractors’ employees</td>
<td>10</td>
<td>Msimbati</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>46</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Author’s construct from field data.*
from the IOCs, six from district councils, and 27 from the villages) upon securing their consent. The auto-recording was crucial to decrease the risk of missing important information. It also allowed us to devote full attention to listening to the interviewees and probing in-depth (Legard et al., 2003). During data analysis, the audio-records were transcribed and keywords, themes, and relevant quotes from the respondents were identified and used in the discussion of the findings. In addition, we captured narratives and viewpoints of the community participation processes entailing information sharing, consultation, benefit, and the roles of local community members in planning gas-related projects and decision making.

Three, male, female, and youth FGDs, each involving six to eight participants (Krueger and Casey, 2000), were conducted in each study site. Participants were selected with the support of community leaders based on the pre-set criteria notably age (18 years and above), duration of stay in the village (10 years and above), awareness of the gas activities, and level of education (standard seven and above). Pre-meetings with the community leaders were held to explain the purpose of the study and the preferred merits of the participants. Pre-meetings were also conducted before each FGD to explain the objective of the study, and also secure the consent of the participants. Formation of the discussion groups considered a combination of representatives of the same calibre in terms of their gender and age. This was important in order to maintain homogeneity and to maximise discussion among participants as it is considered that people talk more openly if they are in a group of people who share the same background or experiences (Elliot and Associates, 2005; Dawson et al., 1993). Msimbati ward comprises 4 villages while Songosongo village is comprised of four sub-villages. We, therefore, identified information-rich participants from these localities who would speak to us and each other and provide good and relevant contributions during discussions (Richardson and Rabiee, 2001). FGDs were essentially important to corroborate and triangulate data collected using KIs and household interviews. Like KIs each discussion was auto-recorded upon securing the consent of the participants. Discussions were conducted separately to ensure that we captured different but relevant viewpoints from the specific group members. We led the discussions as moderators while prompting members to speak and ensured that the discussions were focused and were on track and clarified issues and rephrased questions whenever it was deemed necessary. In each session, a research assistant helped by taking notes of key issues raised. An average of two FGDs were held per day spending between 1 and 2 h in each session (Finch and Lewis, 2003; Eliot and Associates, 2005; Bhattacherjee, 2012). Information collected through FGDs included the community awareness of the gas activities, community engagement and participation process in the gas sector, benefits of participation in the gas sector, factors promoting and/or inhibiting local community participation, awareness of policies and laws governing the gas sector and others. As participants were acquainted with the Swahili language this language was used throughout discussions. This helped create a more relaxed atmosphere, enabled better rapport, and improved confidence among participants.

As indicated earlier, a total of 59 household interviews were conducted in both cases. Household interviews were not recorded to avoid complications that would emanate from recording and transcribing close-ended responses as the questionnaire comprised both closed and open-ended questions. Purposeful sampling was adopted to identify households for interviews. This technique was pertinent to ensure involvement in the interviews of both high-income and non-participants in gas activities. The intent was to capture viewpoints and reactions from these two different household respondent-categories regarding the participation process in the natural gas sector. At this level, the targets were mainly heads of households (HHs) - husband or wife. Where a HH was missed, another household member aged 18 years or above was involved. An average of 35–50 min was spent per interview. Initially, 42 and 22 households were identified in Msimbati and Songosongo respectively but only 39 and 20 respondents respectively were involved in interviews. Elimination of the other participants in both cases was attributed to reaching what in qualitative research is referred to as a level of saturation. From the households, information on socio-economic issues, participation process, gas activities, access to information, sources of information, frequency of information, and benefits of the gas sector were collected.

Microsoft Excel programme was used for data analysis, to create frequencies in order to understand the number of times certain themes under investigation were reported by respondents, figures, tables, and graphs from the household data. These were important to establish trends and examine relationships within the data. They were subsequently used to present and discuss the entire findings. Qualitative content or textual analysis (Fursich, 2009) was used to analyze KIs and FGDs data. This technique was suitable for examining views, ideas and perceptions of the respondents on various local community participation issues. Transcription of the field notes and the audio-recorded information was done regularly and saved for subsequent analysis. KI data were analyzed based on the individual KI transcripts while analysis of FGD data entailed some stages including transcription of the interviews/comments and data reduction. Generally, the analysis process of KIs and FGDs data involved reading and re-reading the written transcripts and listening to the audio recorded interviews and discussions. In the course of doing so relevant themes, concepts, keywords, and important quotations were identified. These were subsequently used in outlining and writing the report.

5. Results

5.1. Local community engagement

Engaging the local community is important for extractive companies to secure SLO. Interviews with staff from both TPDC and the IOCs showed that gas companies view community participation in terms of giving back to local communities through community projects. On the other hand, the government of Tanzania is responsible for ensuring that local communities are properly informed and consulted before decisions are made on these projects (Wilson et al., 2016). The Local Government Authorities (LGAs) and local communities are the key stakeholders in the gas sector at the local level, as local communities host gas extraction activities while LGAs are the organs to implement policies governing the natural gas sector and to promote beneficial local community participation in the sector.

5.1.1. Information dissemination

Our interviews suggest possible shortcomings with information sharing and dissemination in the LGAs. This is specifically in the context of the protocols used to disseminate information about the gas sector and associated issues such as the construction of gas processing plants, the construction of gas wells and gas pipelines, land acquisition, and benefits such as employment and service levy. At the Mtwara District Council (MDC), KIs expressed their concerns about delayed and hasty dissemination of information by TPDC, as well as inadequate engagement of key stakeholders such as local councillors, religious leaders, community development officers, and political leaders who provide links between local communities and the higher-level government organs as illustrated in following quotes:

Last time I heard about TPDC was when they organised sports Bonansa at Madimba village where ‘their’ gas processing plant is located, but they never involved our office. If anything, they just came to request for a

1 Point in the research where collecting additional data seems counterproductive and the “new” information generated does not add much more to the information which has already been gathered (Corbin & Strauss, 1990, Glaser & Strauss, 1967)
permit. They did not even involve the District Cultural Officer, who oversee cultural and sports affairs in this district. At one time they did evaluation of ‘their’ projects and all they needed from here was a permit to carry out this activity. So, we don’t know anything about that evaluation. We even don’t know what the communities said, and what they think.2

Religious leaders have high influence to the communities. They are trusted. We thought engaging them was important for delivery of the right message to the communities but this was somehow delayed. I think the 2012/13 riot could not happen or get to the worse level if this approach was to be used earlier because the level of awareness could be high among community members. Since that time, we have been organizing seminars to religious leaders on annual basis. Through these seminars, we create awareness about the gas sector throughout. We also involve the local governments and security committees.3

The foregoing quotes portray many intriguing issues. They explain the inadequate engagement of LGAs in governing natural gas resources in their areas as the governance of these resources is predominantly determined by the central government through TPDC. They also represent challenges that the LGAs face in executing their policy and legal obligations in the natural gas sector. Paragraph 5.1.2 of the NNGP commits LGAs to carry out important tasks including but not limited to: i) administering and enforcing natural gas Acts and Regulations and ii) creating awareness in local communities of natural gas projects in their areas of jurisdiction. These tasks are supported by section 222(4) of the PA, though the task on administering and enforcing natural gas Acts and Regulations is not well considered in this Act. Nevertheless, LGAs face a variety of impediments in executing these tasks including a lack of resources and indeed little knowledge about respective policies and laws as to a large extent they were not involved in their formulation (Kinyondo & Villanger, 2016). There also seem to be some overlapping responsibilities between TPDC and the LGAs. For instance, while LGAs are mandated to create awareness in communities about gas activities as stated above, sections 9(2) f and l of the PA give mandates to TPDC to undertake more or less the same responsibilities which are to disseminate information about issues relating the natural gas industry and promote local content respectively.

On the other hand, the problems in information dissemination could also reflect limited resources available to TPDC, with most of its staff situated far away in Dar es Salaam and field visits conducted only occasionally. During this study, the TPDC unit responsible for promoting local community participation in the gas sector had only 8 staff, 4 of whom were on study leave. Yet this unit has numerous tasks in more local community participation in the gas sector had only 8 staff, 4 of whom were on study leave. Yet this unit has numerous tasks in more

## Table 2

<table>
<thead>
<tr>
<th>Source of information</th>
<th>Response frequency</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Village meetings</td>
<td>20 13</td>
<td>33 56</td>
</tr>
<tr>
<td>Fellow villagers</td>
<td>13 4</td>
<td>17 29</td>
</tr>
<tr>
<td>Media (newspapers, radio, television)</td>
<td>3 1</td>
<td>4 7</td>
</tr>
<tr>
<td>Gas companies</td>
<td>2 1</td>
<td>3 5</td>
</tr>
<tr>
<td>Gas company workers</td>
<td>1 1</td>
<td>2 3</td>
</tr>
<tr>
<td>Grand total</td>
<td>39 20</td>
<td>59 100</td>
</tr>
</tbody>
</table>

**Source:** Author’s construct from field data.

were reported during this research (Table 2) ranging from village meetings to gas company workers. The number of community members who received information through these sources was found to differ notably between Msimbati and Songosongo. This disparity could be attributed to the different sizes of these two areas. While Msimbati ward is comprised of four scattered villages spreading across 29km², Songosongo is a small island of 3km² (Briggs and Wildman, 2009) that one could tour in a few hours. Hence, it is easier to organise a village meeting in Songosongo than in Msimbati. Additionally, although village meetings are the official information sharing channels at the local community level, these meetings were not conducted regularly (especially in Msimbati). Conceptually, poor community attendance to meetings and the laxity of community leaders in organising such meetings contributes to this situation (Ndikwiki, 2017; Kesale, 2017). Other studies attribute the irregularities in undertaking village meetings to frustrations that community leaders experience as they feel distrusted by higher-level leaders (Rahb and Kamanzi, 2012; Campero and Barton 2015). This is because development plans are discussed and decided at the district level while village and ward leaders are merely informed (ibid.). Findings from this study showed that the dwindling information sharing was also attributed to the change of gas company ownership with different policies and interests. In Msimbati, Artumas was the first company to produce gas in 2004 but its operations were taken over by M&P in 2006. Artumas was reported to have been consistent in providing feedback to community members about their operations but it has not been the same with M&P:

"Things has changed. Unlike M&P, Artumas was very cooperative to the village government. It was easier to be informed about gas activities as they provided regular update about their operations. Whenever they wanted to do something in the village or provide some updates, they would request for a public meeting from the village government. To the contrary M&P is operating in our area but the community is not quite aware of their activities. They only come and talk to people when they need land for road expansion."4

Similarly, information asymmetry between these two cases could be attributed to the fact that Songosongo is relatively an ‘older’ case where gas activities commenced earlier than in Msimbati. In this regard, although the Msimbati community receives information about the gas sector from CSOs such as the MSAPO, advocacy work started much earlier in Songosongo, receiving several training and awareness-raising seminars from CSOs such as the Lindi Association of Non-Governmental Organizations (LANGO) and Oxfam (Arregui, 2016; Lugongo, 2019). Consequently, transparency in service levy to the Songosongo community is reported to be one of the areas that has made significant strides (ibid.).

The distribution of brochures or leaflets disseminating information could help to increase community knowledge (Young and Witter, 2010). Such materials were found at the TPDC headquarters in Dar es Salaam. However, they could not be found at the MDC and Kilwa District Council

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2 Kill at MDC, 22nd July 2018
3 Kill at TPDC, Dar es Salaam
4 Interview with a villager at Msimbati village on 3rd December 2018

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5.1.2. Sources of information about the natural gas sector at the local community level

A variety of sources of information for local community members...
(KDC) nor in local community government offices. Nevertheless, our KIs at TPDC noted that those materials were distributed to local communities during awareness programmes and copies were left at the village government offices. This anomaly represents one example of the shortcomings in disseminating information to the local community by the gas companies.

We did establish evidence that the TPDC and the ‘Mashujaa’ and ‘Safari’ FM local radio stations in Mtwara and Lindi had a programme to raise awareness and respond to issues raised by the Lindi and Mtwara citizens. Through this programme, issues on benefits emanating from the gas sector, impacts and risks associated with gas activities, and precautionary measures against any risks associated with gas extraction activities are discussed. The programme was running in the form of question and answer sessions in which citizens asked questions of TPDC experts. The radio recordings from TPDC reveal that these sessions involved various participants including local community members who sought clarification on how they would benefit from gas being ferried to Dar es Salam from Mtwara and Lindi and other issues. Yet, while this appeared an attractive programme in concept, the extent to which local communities were reached could not be established. Community members who were asked about this programme said they were not aware of it. This lack of awareness could be because the programme was not specific to the Msimbati and Songosongo communities but for the whole of Mtwara and Lindi regions. In addition, not all households in Msimbati and Songosongo own and/or listen to the radio and some may not have been available when the programme was broadcast.

Out of 39 household respondents in Msimbati, 31 (79%) received information when gas activities started in their locality, while in Songosongo 19 (95%) out of 20 respondents received such information. As gas activities continued, the trend in information sharing declined with the number getting much lower in Msimbati over time. During our study of the 31 respondents who received information at the beginning, only 7 (23%) said they were still receiving information. In Songosongo, 15 (79%) of the respondents were still receiving information about gas activities at the time of our research (Fig. 3). As noted earlier, the declining trend in information dissemination was due to the decreasing number of community meetings organised by gas companies such that even those who could not attend the village meetings could not get the information from fellow villagers who attended. This situation could also partly attributed to the absence of a communication strategy for the gas sector. The strategy being developed during this study and follow-up interviews revealed that the strategy preparation was completed but was only for internal (TPDC) use. In contrast, the NNGP commits the government to develop effective communication strategies that provide accurate and timely information to the public about gas activities.

As indicated earlier both the TPDC and the IOCs used to have regular meetings with village governments to provide feedback and to listen to the concerns and issues from the community such as employment, and community services such as water, electricity, gas pipeline protection, and security. However, the frequency of these meetings decreased over time and was eventually stopped when village government officials demanded allowances to attend these meetings amid TPDC tight budgets. In Madimba, customarily the village government invited TPDC staff to its monthly meetings and village government officials presented various issues related to water service, electricity, employment, and protection of the gas pipelines. In turn, TPDC staff responded to these issues and updated the village government on other relevant matters such as security and protection of gas infrastructures.

One of the village leaders noted that in one of those meetings, some village officials raised a concern to TPDC that the plastic water tanks installed as part of the TPDC supported water-project were useless. They said they did not need the tanks anymore since they started bursting shortly after they were installed. They felt this situation was putting the project sustainability at risk and it was because TPDC ignored their earlier request for a concrete tank. They told TPDC officials to remove ‘their’ tanks. With such reactions from village leaders, TPDC staff felt scoured. They subsequently opted to stop attending those meetings as substantiated in the following quote.

…During one of our usual (village government) good neighbourhood meetings one of the village leaders scolded us in relation to the TPDC water-supported project. Since then we have lost the appetite to participate in those meetings⁵ …

The situation did not improve even when the village chairperson and the village executive officer asked for reconciliation. This scenario suggests poor relationships between local communities and TPDC and points to a lack of effective involvement of the local community in the natural gas project. More so, it is a situation that depicts a lack of emotional intelligence⁶ on the part of the TPDC staff, which is an important aspect of the engagement of local communities.

5.1.3. The consequences of the askew information sharing

The inadequate delivery of information to local communities about the gas sector activities raised concerns and created a gap between the local actors and the TPDC. High-level government officials and politicians delivered information to local communities that raised high expectations and hopes for benefits such as employment and improved wellbeing without considering the reality of the natural gas sector. Understandably, gas operations involve various phases such exploration which could impose short timelines, construction which involves intense activity with a large unskilled but temporary workforce, production which requires long-term time scales requiring a skilled labour force (Zeeuw and Kuschminder, 2016). Other aspects worth considering in the natural gas industry are the unpredictable gas markets, price volatility, and uncertainties (Roe, 2017). Elevating community expectations without explicitly disclosing these critical issues created a mismatch between the reality of the gas industry and community expectations to significantly benefit from employment, local development projects, and improved wellbeing.

TPDC and CSOs such as MSOAPO belatedly provided appropriate information to local communities about the reality of the natural gas sector as noted above. Local community members expected thousands of jobs from gas projects. Potentially the provision of inappropriate information was the reason for the Msimbati/Mtwara community members’ resistance to the construction of the gas pipeline from Mtwara to Dar es Salaam as this would mean the loss of the employment opportunities they anticipated. The following quote explains:

Following promise by President Kikwete in 2010 that industries would be constructed here, we expected to have at least five industries, each industry employing at least four hundred people. That would mean 2000 people employed at a time. If each employee earned about United States Dollar (USD) 4.40 a day, he would possibly employ 3 people behind him/her, he/she would buy fish, the fish seller would purchase maize flour and the maize flour seller would go to Mtwara and purchase more maize flour. But this has been a mere daydream⁶.

Heilman & Jingu (2015) confirmed the promise by President Kikwete as they noted that during the general election campaigns in 2010, the then President Jakaya Kikwete assured Mtwara people of employment because gas-related industries would be established in Mtwara. Contrariwise, section 3.1.11 of the NNGP requires community expectations to be moderated with realism since the benefits from the natural gas sector may take time to be realised and, if not managed, could become a source of public discontent (ibid.). The untimely information sharing and involvement of the local community resulted in a riot that

⁴ Interview with a KI at the Madimba gas processing plant
⁵ The ability to understand and manage your own feelings and emotions, and those of the people around you and to discriminate among them and to use this information to guide ones thinking and actions (Salovey and Mayer, 1990)
⁶ Interview with a KI in Msimbati village

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As indicated in section 3, in the context of LCP "local" is taken to mean "national". So even non-skilled and semi-skilled jobs could be taken up elsewhere had been employed by the gas production companies and contractors in both case study areas. The majority (54.7%) of employees came from other places and (45.3%) from the adjacent communities (Table 3). This is the situation on the ground. However, it is important to note that local content requirements define local participation broadly. (Table 3). This is the situation on the ground. However, it is important to note that local content requirements define local participation broadly.

### Table 3

<table>
<thead>
<tr>
<th>Employing company</th>
<th>Total no. of employees</th>
<th>No. of employees from other places</th>
<th>% of the total</th>
<th>No. of local employees</th>
<th>% of the total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas processing</td>
<td>226</td>
<td>198</td>
<td>87.6</td>
<td>28</td>
<td>12.4</td>
</tr>
<tr>
<td>Catering</td>
<td>136</td>
<td>37</td>
<td>27.2</td>
<td>99</td>
<td>72.8</td>
</tr>
<tr>
<td>Security</td>
<td>130</td>
<td>41</td>
<td>31.5</td>
<td>89</td>
<td>68.5</td>
</tr>
<tr>
<td>Grand total</td>
<td>537</td>
<td>294</td>
<td>54.7</td>
<td>243</td>
<td>45.3</td>
</tr>
</tbody>
</table>

Source: Field data 2019.

left memories among the Msimbati community members as recounted by a participant during youth FGD:

*We were bitten by the soldiers and had to stay in the bush the entire night without eating anything just because we asked for our right. Where is the law? The gas is our right. God has brought us this fortune. Why did they not come with clear arrangement and educate us slowly about the procedures instead of using force? Where did we do wrong? Asking for what is ours?*

5.2. Local community employment in the gas sector

The employment of local community members in the gas sector represents a recurrent theme in this study. During the construction phase (building the processing plants and laying gas pipelines), about 400 local community members in Msimbati secured jobs as labourers. At the time of this study, a total of 537 people from local communities and elsewhere had been employed by the gas production companies and contractors in both case study areas. The majority (54.7%) of employees came from other places and (45.3%) from the adjacent communities (Table 3). This is the situation on the ground. However, it is important to note that local content requirements define local participation broadly. As indicated in section 3, in the context of LCP 'local' is taken to mean "national". So even non-skilled and semi-skilled jobs could be taken up elsewhere had been employed by the gas production companies and contractors in both case study areas. The majority (54.7%) of employees came from other places and (45.3%) from the adjacent communities (Table 3). This is the situation on the ground. However, it is important to note that local content requirements define local participation broadly.

5.3. Gas company-supported projects and local community participation

Gas companies support several projects in the areas where they operate. In Msimbati M&P constructed primary and nursery school buildings, a secondary school laboratory, and a maternity ward and supplied it with medical equipment. In Songosongo, Pan African Energy Tanzania (PAET) constructed school buildings, a kindergarten, and a dormitory for a girls’ secondary school. They also constructed a secondary school laboratory and supplied basic laboratory equipment. In addition, the company is running an annual student scholarship program through which ten pupils from Songosongo primary school are sponsored to study at Makongo secondary school in Dar es Salaam. At the time of this study, 40 students had already benefitted from this program since it was established in 2010. Five students were pursuing higher education in different universities in Tanzania.

In Madimba village, TPDC installed five water tanks with a combined capacity of 75,000 litres, which the villagers could draw on every day. Notwithstanding this important service provision, some community members suggested a lack of effective community participation in this project:

*We are grateful for this water project. It was launched in 2015 but now out of five tanks, only two remain, the rest have busted. I don’t think the remaining ones will last for a year. They were supposed to construct a concrete tank which could last for at least 15–20 years so that our children and grandchildren could also benefit from the project, but they brought plastic tanks that we noted were not new and cannot be repaired. But people were desperately in need of water, so there was no alternative but to accept the project.*

Lack of effective involvement of key stakeholders was substantiated during interviews with KIs from the Mtwara Rural Water Supply and

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8 Narration during youth FGD in Mtandi village

9 Interview with a community leader in Madimba village
Sanitation Agency (MRUWASA). They were concerned at not being involved in the development process of the project but were only invited during the handing over of the project to the Madimba community. As a result, they had no details about the project including the quality of water supplied.

As for Songosongo, PAET provides about 35,000 litres of treated seawater daily and free electricity to the Songosongo village. Water and electricity service provision is offered based on the 2001 Environmental and Social Assessments and Management Plan (ESAMP) for the Songosongo gas project, which requires PAET to provide to the community water and electricity free of charge at the gas plant boundary. Likewise, TPDC supplies to the Songosongo community about 60,000 litres of water. Thus, providing in combination with the PAET a total of about 95,000 litres of treated seawater to the Songosongo community every day.

What further indicated inadequate local community participation was that in Songosongo, community members refused to pay electricity tariffs to the Tanzania Electric Supply Company (TANESCO), referring to the Songosongo gas project ESAMP which directed the service to be ‘free’. Similarly, in the beginning, some community members were adamant in paying only a token of USD 0.01 to the Songosongo gas project ESAMP which directed the service to be free. This situation could suggest that the information provided to the community members about the “freeness” of these services was not understood nor was it communicated properly to the community. As pointed out above the ESAMP stipulated that the ‘freeness’ of these services had to end at the gas plant boundary.

Similar to the TPDC water-supported project scenario in Madimba village, in Mtwarra, KIs from the Kilwa Rural Water Supply and Sanitation Agency (KIRUWASA) said they were not involved in the planning or budgeting of the water project in Songosongo village. Generally, we found that participation of local community members and key stakeholders at the district council level in the gas company-supported projects was inadequate. Often community members and LGAs were left as either onlookers or endorsers of such projects:

I will talk about one major challenge which irritates me a lot. When gas company representatives come, we agree on community projects they can support. We provide a list of our priorities. They go and assess their budgets and decide on what project to implement and what project(s) should be rescheduled to the subsequent year. Thereafter they engage a contractor, but without our knowledge, we just come to learn that the work is underway. We can’t have any control over such projects, we can’t ask the contractor about anything, whether he/she is doing a quality job or not because we are not party to the agreement.

The foregoing signifies a lack of transparency and of stakeholders’ involvement in projects whose stewardship and sustainability relies on their effective participation.

5.4. Service levy

Section 7 (1aa) of the Local Government Finance Act of 1982 and section 17 (3) of the Oil and Gas Revenues Act of 2015 recognise service levies as potentially important revenue sources for district councils. They therefore commit corporate entities to pay a rate not exceeding 0.3% of their gross revenues to relevant district councils. By June 2019 a total of USD 1034,733 had already been paid to MDC by M&P and TPDC (Fig. 4).

Fig. 4 shows an increasing trend from 2012 to 2019 of service levy payments to MDC. However, no portion of the levy is disbursed directly to Msimbati and Madimba, but rather the entire service levy is spent on development projects across the Mtwarra rural district where the Msimbati and Madimba wards are situated. About 10% of this levy is allocated to the youth development fund, 50% to development projects (water, schools, roads, and health facilities), and the remaining 40% to administrative matters. Msimbati and Madimba community members perceive this as a denial of meaningful participation and benefit from the gas sector. In Songosongo, PAET and TPDC started to pay a service levy in 2006 and 2016 respectively. Surprisingly from 2006 to March 2012, PAET paid the service levy to Ilala Municipal Council (IMC) in Dar es Salaam because the company was registered in Ilala (Majamba and Longopa, 2018; Ngowi, 2015; comm. with the PAET staff). However, as per the Local Government Finance Act of 1982, the service levy should have been paid where the actual production was taking place because gas activities may cause environmental damage (Ngowi, 2015). Paying the levy to IMC denied KDC and Songosongo communities their legitimate participation in the natural gas sector for seven years, an irregularity that persisted until it was disclosed by the TEITI - Tanzania Extractive Industries Transparency Initiative (Majamba and Longopa, 2018). Interestingly, the councillors in Kilwa district had endorsed a bylaw directing KDC to pay 20% of the gas service levy to Songosongo village. At the time of this study, PAET had already paid about USD 1527,075 to KDC, 20% (USD 305,416) of which was supposed to have been disbursed to Songosongo village (Fig. 5). Nevertheless, as also reported by Poncian (2019a) disbursement of the 20% to Songosongo had been sporadic as sometimes the money would have been spent on other activities by the KDC. At the time of this study, there was an outstanding amount of about 36% (USD 110,675) of the rightful amount to be remitted to Songosongo (interview with Songosongo village chairman). Encouragingly, nearly 75% of the outstanding amount was reported to have been paid (recent personal communication with former Songosongo community leader).

The NNGP acknowledges the role of the local communities in safeguarding natural gas infrastructure. In this context, the TPDC and the villages through which gas pipelines pass have signed an agreement for its protection and cleaning of the wayleave. A monthly payment ranging from USD 109 to USD 196 is made to a village through which the pipeline passes, depending on the distance the pipeline extends through the village. What was surprising, however, was that although all 9 village leaders interviewed in Msimbati ward were aware of this agreement they did not know how it was developed and how the amount paid was determined. Moreover, only 31% of the household respondents in Msimbati were aware of the existence of this agreement and even the MDC lawyers were not fully aware of this agreement:

The development of the agreement between TPDC and the villages to protect gas pipeline is not clear to us. But ordinarily, the MDC Lawyer was supposed to be involved in this process and become village governments’ spokesman in this regard. However, this has not been the case.

We sought clarification from TPDC about the development of the agreement, but no clear explanation could be provided as officials from the Gas Supply Company (GASCO) that oversees the gas pipeline operations referred us to TPDC. This situation may explain the lack of local community participation in decision making, as the decision-making process was monopolised by the Ministry of energy through TPDC while sideling grassroots institutions and local community members.

6. Discussion

The principles of community participation that underscore prudent community engagement entail information giving, consultation, collaboration, transparency, and trust-building to empower community members to participate in decision making and to build relationships

10 1 USD = TZS 2,295
11 Interview with a senior officer at the KDC
12 Interview with one of the Lawyers at the MDC
The NNGP stresses a formal communication mechanism in the gas projects through continuous dialogue between extractive companies, communities, and government (Lange and Kolstad, 2012; URT, 2013, 2014, 2015; Wilson et al., 2016; Loe and Kalman, 2016; Painter and Castillo, 2014; Zeeuw and Kuschminder, 2016; Pedersen and Kweka, 2017; Scurfield and Mihalyi, 2017; Poncian and Jose, 2019; Bishoge et al., 2018). Nevertheless, the delayed but hasty local community engagement explained in this paper inhibited the contribution from local community members in the process.

Lack of awareness in the gas sector denied local community members the opportunity to increase their knowledge about the sector in terms of benefits and impacts and the information to make an informed decision about participation. As one Songosongo resident has said: “Yes, we think this exploration is vital but we need the truth, to have the information laid out for us so we can explore slowly what might be best for us” (Mutch 2013). The majority of local community members were uncertain of the exact type of gas activities taking place in their localities due to a lack of regular updates. This could be attributed partly to a lack of adequate resources at the LGAs necessary to provide awareness to the community about gas projects. This is exacerbated by the common perception that people in the Mtwarra and Lindi regions are culturally backward, primitive, stubbornly lazy, and inherently apathetic to development initiatives (Kamat, 2017). Unfortunately, this perception is also held by some practitioners in the gas companies without appreciating the fact that poor people have ideas, knowledge, and aspirations and wish to be treated with respect and as potential partners in any plans for them (Cochrane, 2009).

In addition to these challenges, community engagement in EI activities is often highly emotional due to community member’s distress and anger stemming from unfulfilled promises and the loss of important assets such as land, water sources, and crops caused by extractive activities (Wilson et al., 2016). Practitioners who are involved in local community engagement processes need to develop ‘soft skills’ and emotional intelligence to engage effectively (Wilson et al., 2016; Cavelzani et al., 2008) and to strengthen the relationships and linkages between local communities and gas companies. This should involve the placement of liaison personnel or public relations officers in field offices with a good understanding of the local community context. This has not been given due attention in the natural gas sector in Tanzania. At the time of this research, only PAET had a staff member working as a liaison officer based in the field; M&P operating in Msimbati had such an officer, however this officer was based in Dar es Salaam and only went to the field occasionally. TPDC Madimba and Songosongo did not have such officers.

Local community members view employment in the gas sector in terms of employment by gas companies or contractors. As indicated earlier, local people lack relevant skills, experience, and education in the gas industry. As a result, most can only secure unskilled jobs. The failure to beneficially participate in this sector could also signify a lack of...
adequate utilisation of the available natural capital such as land and sea
to produce and supply the gas industry sufficient quantity and quality of
foodstuffs. For instance, the monthly demand for various foodstuffs by
M&P is about 6180 kg. However, only fish (1200 kg) equivalent to 19%
of the total foodstuffs required is obtained from Msimbati and the
remainder is imported. This situation could well explain the inadequate
of the total foodstuffs required is obtained from Msimbati and the
remainder is imported. This situation could well explain the inadequate
support by the LGAs of the local communities in participating in the
sector through the provision of incentives, funds, and training.

We once visited the gas processing plant at Madimba. We expected to see
local community supplying fruits, vegetables, meat and other agriculture-based
products to the gas company. But this was not the case as the company
obtained foodstuffs from Mtwara town and as far as Dar es Salaam because local supply would not be quality and adequate. So, the
presence of gas companies has not yet benefited our local communities
and I can admit this is our fault at the District Council.\textsuperscript{13}

However, it was also revealed that the LGAs lack adequate resources
to support local communities’ participation in the natural gas sector and
other projects in general. For instance, on average MDC’s annual budget
is USD 566,202 but receives from the central government between USD 348,432 and USD 391,986. MDC comprises 21 wards, however, at the
time of this study, there were only 13 Community Development Officers
(CDOs), and KDC having 23 wards had only 16 CDOs. These are the only ofﬁcials to support local community participation in the gas sector. In Songoongo there was no CDO, while the ones in Madimba and Msim-
bati complained about the acute lack of resources.

The gas company-supported projects raised other contentious issues.
For instance, M&P constructed a maternity ward in Msimbati village
with medical equipment such as an autoclave, a hemocounter machine,
BP machines, and delivery kits (Koweka et al., 2018). However, the area lacked the necessary health personnel to use some of these pieces of equipment. This highlights the inadequate participation of key stakeholders from the project’s inception and shows that plans prepared by outside experts without adequate participation by residents can yield nice sounding outcomes that are misaligned with local needs and capabilities (Rahman, 2005; Chirenje et al., 2013).

While the Songoongo community enjoys ‘free’ treated seawater and electricity, their counterparts in Msimbati are not favoured with such services. Understandably the development of gas projects in Msimbati and Songoongo have had different backgrounds. However, the different companies involved operate under the same Tanzanian policy and legal framework and therefore there should have been an arrangement for ensuring that both communities enjoy benefits emanating from gas resources. Otherwise, the current situation could be perceived as having in the same country a selective policy and legal framework (Larson and Ribot, 2007).

\textit{We benefit from electricity but we pay for it, although it is generated from natural gas extracted in Msimbi. We are aware that our counterparts in Songoono gets electricity free of charge. So why are we treated differently and yet we will be the first victims in case of hazardous incidents caused by gas activities?}\textsuperscript{13}

At the outset, the LCP asserts that ‘delivering local benefits to the communities where oil and gas companies operate is no longer an option but a commercial necessity’ (URT, 2014).

In Msimbati, community leaders and community members reported that in 2006 Artumas, a Canadian petroleum company from which M&P took over gas activities, promised to supply free gas-fired electricity to the Msimbati community. This promise was not fulfilled, but nearly 15 years later it still lingers in the memories of Msimbati community members. Regrettably, it was just a verbal promise in a public meeting

\textsuperscript{13} Interview with a senior ofﬁcer at the MDC

\textsuperscript{14} Reaction of one of the participants during FGD in Msimbati village

without any written commitment. As such, there is no basis for the Msimbati community to demand its fulfillment (interview with Msimbati community leaders, 2019). There also was a problem in informing the Msimbati community about the background of the Songoongo “free” water and electricity projects in the context of ESAMP as elaborated in the preceding section. This would probably help to ameliorate the everlasting resentment from the Msimbati community members about the unfulﬁlled promise.

Since gas extraction activities started, MDC and KDC received service
levies amounting to USD 1033,832 and USD 1584,334, respectively. However, payment of the service levy has been characterised by some anomalies including paying to the wrong beneﬁciaries in the case of KDC. Likewise, while KDC pays 20% of the service levy to Songoongo village, in Mtwara the entire service levy is retained at the MDC to finance development projects and administrative chores across the district. These variations have raised concerns from stakeholders and the Msimbati community in particular (Lugongo, 2019) and may implicate uneven policy implementation in two or more less similar situations with analogous natural resources. While it sounds logical to utilise the service levy for development projects in villages across Mtwara district, it is fair and important to disburse a portion of the levy to Msimbati and Madimba since they are the communities immediately affected by gas projects. Moreover “fair and equitable beneﬁt-sharing” is a legal requirement to which several international conventions refer (Majamba and Longopa, 2018; Morgera, 2015; 2016). EI companies are receiving increasing pressure from stakeholders such as international financial institutions, civil society, and governments in resource-rich countries to balance their interests with those of the local communities. This would involve more-equitable benefit-sharing agreements that ensure the participation of local communities and indigenous peoples in extractive projects while respecting their rights to maintain customs, culture, and institutions (Malaika et al., 2002; Söderholm, 2014; Gathii and Oduomosu-Ayanu 2015; Sulyandziga, 2019; Wilson, 2019; 2018; Tulaeva &Tysiachiouk, 2017; Cameron and Levitan, 2014; Gilmour and Mellott, 2013). These kinds of benefit-sharing mechanisms are governed by the Impact and Benefit Agreements (IBAs) as the potential tools for benefit-sharing among stakeholders and to avoid or resolve conflicts between local communities and EI companies (St-Laurent and LeBillon, 2015). Nevertheless, benefit-sharing mechanisms in the EI in Tanzania have not been well articulated (Majamba and Longopa, 2018).

Similar to KDC, the MDC could enact a by-law to support payment of a portion of the service levy to Msimbati and Madimba. Maintaining the status-quo of ‘no direct allocation’ of the service levy to these localities while community members continue equivoking about it, may reinforce the loss of trust and worsen relationships leading to community–company–government tensions. Some residents have suggested that unabated over a long period, this situation could result in social tensions, community violence against companies and destruction of government installations and personnel, and eventually increased business risk for the EI companies (Söderholm and Svahn, 2014; Zeeuw and Kuschminder, 2016). This is further accentuated in the following quote by a resident from Msimbati:

\textit{The ones entrusted to oversee justice in the gas sector should do justice as per the natural gas policies. We are worried that in future people may be fed up. Maintaining business as usual is not good because in the end sons of Msimbati will be in decision making positions and will fight for their rights that have been denied for long time. They will say policies and laws were clear but people have been denied their right, pay their money. The government will have to pay more money.}\textsuperscript{15}

\textsuperscript{15} Feelings exposed by a participating during FGD in Mtandi village, Msimbati ward.
In this paper, we assessed local community participation in the natural gas sector in the Mtwara and Lindi regions in Tanzania. We focused on local community engagement processes, local community employment and other benefits emanating from the natural gas sector. The findings revealed delayed engagement with local communities and other stakeholders such as councillors and religious leaders. It was further revealed that increased expectations of employment among local community members in the gas sector that were divorced from the realities of gas markets and local skill deficits. Untimely and inappropriate information sharing with local communities caused riots in 2012 and 2013 opposing the government’s decision to construct a gas pipeline from Mtwara to Dar es Salaam. These communities were also desperate to learn how they would benefit from the project. While some information was shared early, the information-sharing events with local community members diminished as gas activities continued. In addition, inadequacies in the energy policies of 1992 and 2003 that entailed natural gas issues and the Petroleum Act of 1980 and 2008 have effectively constrained participation of local community members in the natural gas sector. On the other hand, while the local community could participate and benefit indirectly from the gas sector through agriculture and other sectors, the recent LCP does not promote agriculture directly (Bezu et al., 2018), although it specifically emphasises the need for the gas sector to provide employment opportunities to local community members. Likewise, the NNGP underscores the importance of linking the gas sector with other sectors such as agriculture.

Community members have not been active participants in company-supported projects but acted mainly as endorsers of such projects, thereby limiting the creation of local ownership and the sustainability of these projects. Given the potential for new gas discoveries and investment in gas production in Tanzania, changes to promote more meaningful local community participation are essential. Incorporating the views and knowledge of local community members in decisions that are likely to affect their wellbeing is critically important. Information sharing with communities about the gas sector’s activities should be conducted in a timely, regular, and transparent manner, and in a way that does not create unacceptable expectations. Management of local community expectations should consider local community context and the reality and technicalities of the gas sector. As such, involving natural gas experts in educating local communities about the gas sector (as opposed to leaving this responsibility to politicians) is important. There should be practical enforcement of paragraph 5.1.2 of the NNGP and section 222 (4) of the PA that promotes local community participation in the natural gas sector by the LGAs. This should involve the monitoring of gas industry operations to verify compliance. Additionally, the government and other stakeholders should scrutinise the potential of instituting the IBAs between companies and local communities to provide an opportunity for local communities to participate in negotiations on decisions of relevant issues including environmental impacts, employment, and community development and equitable benefit distribution among key stakeholders (Wilson et al., 2016; Zeeuw and Kuschminder, 2016).

References
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