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Corporate Management of Host Communities in Renewable Energy Infrastructure Projects in South Africa

MA Thesis in African Studies

By Anissa Sidhoum Hassaïne
Student ID: S2533162
anissa.sidhoum@sciencespo.fr

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Supervised by
Dr. Harrison Esam Awuh
h.e.awuh@asc.leidenuniv.nl

Second Reader:
Dr. Akinyinka Akinyoade
a.akinyoade@asc.leidenuniv.nl

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ABSTRACT

Engaging in a just energy transition implies the equitable participation of all stakeholders. The successful development of renewable energy infrastructure projects relies on a strong social support. Companies must implement ambitious community engagement practices to gain a social license to operate (SLO) and, thus, mitigate social acceptance risks.

This study aims at investigating the interactions between involved companies and host communities of such projects in South Africa, where firms must engage in local economic development activities. It focuses on the construction phase of third-party EPC projects (when Engineering, Procurement and Construction services are offered by an actor that is not the original developer).

Based on a comprehensive literature review, field research was conducted. Thorough observations were recorded. Questionnaire surveys were disseminated to the company's employees and local workers. Semi-structured interviews and discussions were conducted with company's representatives, local workers, and other community members. A comparative case study approach is adopted to evaluate corporate management strategies. Two projects located in the North West province, Bokamoso and Waterloo Solar Parks, and overseen by the same EPC company, are analyzed. The SLO concept is utilized to assess actual community responses and frame elements of corporate management that might have influenced the positive observed levels of SLO. Results show that:

- There is a slight mismatch between the reality on site and its perception by the company.
- The company maintains a negative approach to communication, both internally and externally, which negatively influenced local communities' responses.
- Community responses are also shaped by external factors that the company acknowledges but difficultly navigates.

These results suggest that host communities and local rules of the game should be better understood by corporate proponents. Practical recommendations to improve community engagement and better mitigate social acceptance risks in renewable energy infrastructure projects, solely during the construction phase, in South Africa are offered.

KEYWORDS

Just energy transition, Renewable energy infrastructure, Social risk management, Community engagement, Social license to operate, REIPPPP, Corporate social responsibility



ACKNOWLEDGEMENTS

Writing this master's thesis was a peculiar experience. After hastily coming back to France in March 2020, I struggled to reconnect with my initial excitement regarding my first extensive research project. I, however, was quickly reminded of the continuous support I was faced with since the start of my studies at Leiden. I would like to formally thank those who encouraged me here.

First and foremost, I would like to extend my sincere gratitude to the Val d'Oise Departmental Council for having trusted me from the start and rewarded my ambition with the Equal Opportunity Award (7th edition). This award opened a wide range of opportunities. It enabled me to take a gap year from my studies in Economics & Business at Sciences Po. Paris, pursue this MA in African Studies at Leiden University and, thus, conduct and finish this research project in South Africa.

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Consequently, special thanks must be given to the internship organization that welcomed me, its employees, and especially my supervisor. Thank you for helping me feel at ease at your company and in Cape Town, for giving me access to so many resources and enabling me to visit the two sites I investigated.

Finally, I would like to extend a warm thank you to all informants and participants in this research project, be they local site workers, other community members or employees at the company that I interned at.

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LIST OF ABBREVIATIONS

Abbreviation	Explanation
CLO	Community Liaison Officer
ED	Economic Development
EPC	Engineering, Procurement, Construction
IPP	Independent Power Producer
IR	Industrial Relations
O&M	Operations and Maintenance
PV	Photovoltaic
RE	Renewable Energy
REI	Renewable Energy Infrastructure
REIPPPP	Renewable Energy Independent Power Producers Procurement Program
SLO	Social License to Operate

1. INTRODUCTION

1.1 / Towards a socially just energy transition

Energy transition has become an absolute urgency. The scarcity and the environmental impact of conventional fossil fuels associated with the anticipated demographic growth drives the necessary diversification of the energy mix including more and more low-carbon power generation and an increase in energy production. Indeed, not only will the point be to deal with climate change, but the issue will also be to improve energy access globally (Zinecker et al., 2018).

Energy transition is a long-term transformation of, in the current era, a fossil fuel-based energy system to one mainly based on renewable energy (RE). It aims at changing the whole energy chain – from its production to its extraction, conversion, transport, delivery and to its final use (Baker et al., 2014; Sokona et al., 2012). Because it is such a comprehensive process, it must be built on a strong set of policies and practical regulations (Lucas and Thompson, 2018).

On a global scale, representatives of countries meet regularly to discuss international goals to reach in the following decades regarding climate change mitigation and RE development. With the publication of the MIT report *The Limits to Growth* (Meadows, 1972), and the UN Stockholm conference of 1972, states promised to meet every ten years for the Earth Summits. In 1995, with the Rio Conference, the annual conference of the Parties (COP) was created. These international organizations, as well as bilateral meetings, then, put pressure on countries and states to make them adopt the final guidelines into their own legal frameworks, in the same way the Paris agreement of 2015 required parties to sign and ratify the text.

Beyond this necessary legal application of the principles of energy transition, more and more attention is put on the social component of energy. Indeed, if the energy transition requires a solid institutional support and a favorable regulatory framework, in addition to technical innovation, it also requires a strong social support and impact (Zinecker et al., 2018). It must be actively accepted and fostered by people who are to work in these new industries (and maybe leave their job in other fossil fuels industries) or simply to live with new infrastructure, technology, or ways of consuming energy.

In practice on the power production side, in the context of renewable energy infrastructure (REI), companies involved in such projects need the approval of local stakeholders that are or could be affected. However, this approach to REI has only recently started to be considered. Indeed, the social impact of renewables was often overlooked and neglected, in favor of their positive environmental impact and their key role in the reduction of greenhouse gas emissions.

The concept of “just” energy transition has, thus, slowly been appropriated. Its definition is not fixed. Nevertheless, its basic principles make particular sense for the REI industry. Overall, it implies a process enabled by dialogue between all the stakeholders and that ensures the minimization of negative externalities and an equitable sharing of the value (Zinecker et al., 2018). It represents a priority in a world fueled by injustice and inequality, the risk of not engaging in such a just transition being to foster an energy transition that still favors the privileged. A just energy transition constitutes an opportunity to move away from the current inequal state of the world (Lavelle, 2015).

1.2 / Considering community responses in REI projects

Research on the social aspects of energy infrastructure, an object that seems, at first, solely technical, has been developing for the past twenty years. Indeed, the planning model has switched from a mere expert-

based process with little to no communication with host communities to a process including greater interactive mechanisms (Filion, 1999). This ongoing change occurred to ease project development, while facilitating the longevity of projects. It is about understanding the needs and wants of people who receive an infrastructure in their community and fostering citizen engagement in planning where possible to avoid project delays or even the potential termination of the project (Search et al., 2017; Gonzalez et al., 2016).

In the literature, these considerations have mainly been approached through the concept of "social acceptance". Although there is no definite and commonly accepted definition of this term, "social acceptance" in the energy industry can be understood as a positive reaction towards a project by the members of a given society.

A first attempt at analyzing this notion defines its three dimensions: socio-political acceptance (which refers to the general level of social acceptance), market acceptance (referring to the adoption of RE technologies by market actors) and community acceptance (local stakeholders) (Wüstenhagen et al., 2007). Yet, beyond acceptance, the literature also includes widespread cases of social resistance to energy infrastructure across the globe (see Mondal et al., 2010; Brower Brown, 2011; Cashmore et al., 2019).

In line with the evidence of opposition, the concept of "social acceptance" and its reception in academia are widely questioned and debated. Most articles focus only on one dimension, while they should be considered as inter-related (Devine-Wright et al., 2017). Also, the terminology is at the center of discussions. The term "acceptance" seems to perpetuate a top-down perspective and involves the risk of ignoring a variety of other responses (Batel et al., 2013). Nevertheless, Wolsink (2018) emphasizes that the term "acceptance" is relevant in the sense that energy transition implies the necessity that crucial actors accept the transformation and that the term was, from the start, meant to include a wide range of dynamic positions. Yet, for this research project, and as recommended in Batel and colleagues (2013), the concept of "publics' responses" will be preferred as it appears to be more accurate.

Another concern in the literature of "social acceptance" is the focus on the early stages of energy infrastructure development. However, social acceptance or response must be considered as a dynamic process. An individual's attitudes, behaviors or intentions may evolve throughout the project (Oltra et al., 2014).

Finally, there is a dearth of knowledge on social acceptance in developing countries. Most of the literature on the concept focuses on Western countries. There are a few studies on factors influencing socio-political or community acceptance in developing and emerging countries such as Brazil for wind power (Muylaert de Araujo and Vasconcelos de Freitas, 2008), Mexico (Mallett, 2007) or Algeria for shale gas projects (Zerguini, 2016). In the specific case of South Africa, there have been only two studies related to the concept of social acceptance of RE (Lombard and Ferreira, 2014; Modikela Nkoana, 2018). In the former, the authors explored place attachment in the context of proposed wind farm projects in the Western Cape province. In the latter piece of research, however, the researcher investigated the deficient application of corporate promises to communities in the context of two operating solar farms in the Limpopo province. Therefore, there is the need to consider the ongoing response of communities living with an existent REI as well as understanding the involved companies stands, positions and attitudes towards it.

In a nutshell, research is lacking on public response to infrastructure in developing countries (particularly in Africa). Furthermore, the interactions between communities, existent REI projects (as opposed to proposed projects) and corporate proponents is often overlooked. In the same way, the evolution of responses to REI from ideation to operation, the full life cycle of projects and the potential social adaptation have not received enough attention in academia.

1.3 / The ambition of the present research project

Thus, the present research project followed a twofold ambition. First, it aimed at identifying how host communities of REI projects react and live with the infrastructure. It was about assessing and understanding the community responses. Then, it aimed at investigating how involved companies shaped these responses through their actions and considerations and mitigated social risks. Essentially, it aimed at exploring the complex relationship between these two groups of actors.

To that end, a case study approach was utilized. Two PV (photovoltaic) solar projects, Bokamoso at Leeudoringstad and Waterloo at Vryburg, located in the North West province in South Africa were analyzed. If they both presented similar technical characteristics, they generated different outcomes in terms of community responses, one being particularly prone to disruptions. Yet, even with apparent challenges, the involved companies achieved to deliver the projects.

The particularities of the chosen study cases narrowed the scope of the study to the following elements. Both projects were in their construction phase, defined as the period from the end of development to commissioning (*see Appendix A*). The development and exploitation phases are, thus, voluntarily left out of this paper. If their study would have been particularly informative, it would have required more extensive research means in terms of time and funding. The selected projects also both were third-party EPC (Engineering, Procurement, Construction) projects, meaning that a company different from the initial project developer was appointed to oversee EPC activities. Projects undertaken by a project developer that is also a constructor or operators do not concern this study.

The main research question that this paper aimed to answer is: How and to what extent do companies involved in the construction of REI projects shape host community responses and, thus, the social acceptance risk? Involved companies in this construction phase are the EPC company, and subsequently, its subcontractors.

Social acceptance risk entered the top 10 business risks defined by Ernst & Young in 2010 (EY, 2010). Indeed, it is now understood that the lack of local stakeholders' support or an active opposition to business activities can profoundly impede operations, and, thus, constitute a risk that is to be anticipated and mitigated. Overall, the results of this research project could be valuable to further assist in the development of energy transition in South Africa and other emerging economies through the implementation of successful REI projects and by improving their social impact. In the corporate and legal setting, the research offers practical information to improve corporate social responsibility (CSR) / local economic development strategies and policies and, ultimately, better manage social risks.

2. THEORETICAL FRAMEWORK

This research project drew on the theory of social license to operate (SLO). This refers to an informal license granted by local stakeholders and earned and maintained by companies regarding the ongoing corporate operations. It is, essentially, a continuous social permission to conduct and operate a project. It provides companies with tools to assess and organize a social dialogue (Moffat et al., 2016).

The concept first emerged in the mining and extractive industries as a means of assuring the longevity of socially questioned projects. It was first used by James Cooney, an officer of Placer Dome in a World Bank meeting in 1997 (Boutilier, 2014). And, it slowly integrated other industries, such as, since a fairly recent period and not to a wide extent, the RE sector (see Corscadden et al., 2012; Hall et al., 2012; Hall, 2014; Hall and Jeanneret, 2015).

The SLO is deeply rooted in other concepts surrounding the CSR debates. It is closely linked to sustainability as it implies an ongoing relationship between proponent companies and community actors. It also is the result of a switch from the concept of free, prior and informed consent (FPIC). This notion was developed by the United Nations especially for industries operating in areas with indigenous people. SLO broadens the approach of FPIC (Wilburn, 2011).

Additionally, it is important to highlight the difference between CSR and SLO. CSR is a wide framework that can be considered too peripheral to the core model of business (Morrison, 2014). Indeed, the CSR theory starts with the economic responsibility of the business to make profit and then ends with its philanthropic responsibility (Brusseau, 2012). On the contrary, the SLO aims at introducing social considerations directly into core business models.

The SLO was first conceptualized in Joyce and Thomson (2000). They recognized the necessity of legitimacy in gaining the SLO and added two other requirements: credibility and trust. They formulated a hierarchy of perceptions with two different levels: acceptance and approval.

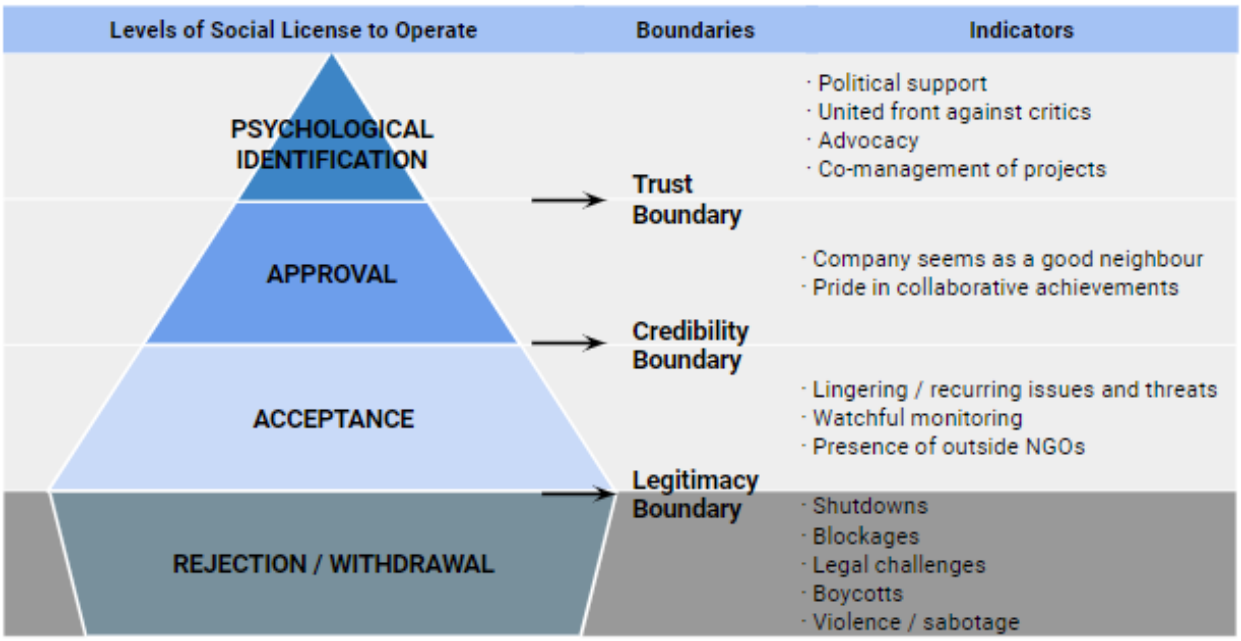
Their analysis was, then, improved by Thomson and Boutilier (2011). They created a cumulative hierarchy model with four levels and three boundaries. In their model, the first level of SLO, acceptance, is achieved with legitimacy. Without legitimacy, the SLO faces rejection / withdrawal. Then, approval is achieved with credibility. Finally, “psychological identification” is achieved with trust. This highest level of SLO describes a very stable environment and is only rarely achieved (Boutilier et al., 2012).

In this model, the SLO must be understood as a dynamic and project- or site-specific concept. It can fluctuate over time and it depends solely on the characteristics of the project and the community. Also, this “community” must be considered as a network of stakeholders. Indeed, the “community” is often a heterogeneous entity. It is, then, the duty of the company to invest in social capital to build a uniform entity through “community building” strategies (Thomson and Boutilier, 2011).

Furthermore, ideally, companies should start with *“the assumption that they do not currently hold a social licence, and that they must engage in ongoing, dialogic negotiation of community and societal expectations and perceptions”* (Parsons and Moffat, 2014, p.357).

Figure 1 summarizes the cumulative hierarchy model with its levels, boundaries and some indicators identified by the Sustainable Business Council of New Zealand (2014).

Figure 1. The SLO scale



Adapted from Thomson and Boutilier (2011) and Sustainable Business Council New Zealand (2014)

The concept has widely been used and reviewed in the academic literature. Each scholar highlights the factor that makes more sense in their studies. Stakeholders need to join an early dialogue about the planning of a project (Wolsink 2007; Parsons and Moffat 2014). They also need to be informed and educated regarding the actual impacts of the project (Banks et al., 2010). And, trust seems to be the main indicator of community acceptance in Moffat and Zhang (2014). However, their model actually highlights the centrality of trust to get acceptance and approval and differs from Thomson and Boutilier's model then.

If Gehman, Lefsrud, and Fast (2017) highlight the existence of three varieties of SLO (the pyramid, three-strand and triangle model), they all seem to be relying on Thomson, Boutilier's pyramidal model and definition. Indeed, in the three-strand model, social license shares the stage with a political and legal license. And, the triangle model relying on the concept of "social acceptance" as defined in Wüstenhagen and colleagues (2007) can be understood as only one part of the SLO.

If the concept of the SLO has mainly been used in the mining sector, it is a relevant theoretical framework for the RE industry because the latter faces similar social challenges and risks that it needs to confront. In South Africa, the SLO is even more relevant as companies must thrive in a very complex social context and a specific corporate culture imposed by the government. It even seems like the government of South Africa is attempting to formalize the SLO into its regulations (Matebesi and Marais, 2018).

In this research project, the SLO theory was used to analyze the ongoing relationship between the host community and the involved companies, regarding the studied REI projects. From the literature, a successful project appears to be one that is fully accepted by host communities, adopted as being part of their environment and that eventually unfolds without significant delay related to social resistance. Thus, this research project lies on the assumption that the main key factor to achieve such a success is the obtention and maintenance of the

SLO. By investigating the corporate considerations, strategies, and actions, the SLO is used to assess the way the EPC company acts towards the development of responses from the host communities it should work with.

3. CASE STUDY INFORMATION

3.1 / Renewable energy infrastructure projects in South Africa

In Africa, South Africa seems to be leading the path towards energy transition and the development of renewables. Even though the country is still greatly reliant on coal and other fossil fuels, South Africa is embracing RE (Simelane and Abdel-Rahman, 2011). The combination of the stringent international drive, national energy security concerns, recurrent load shedding episodes imposed by Eskom, the national electricity company, and the increased profitability of wind and solar power make RE more attractive to participate in both the economic growth and the development of the country.

Indeed, it is firmly believed by the South African government that renewables can be an opportunity for the development of the South African population (National Planning Commission, 2012). For that reason, all regulations and laws related to RE production by the private sector in the country include a strong social component, by adopting a sustainability approach to the concept of energy transition.

South Africa already has a specific corporate culture that favors social inclusion (Wlokas et al., 2017). The "preferential procurement policy framework act 05 of 2000" obliged the government to allocate "*points*" to companies owned by people "*historically disadvantaged by unfair discrimination on the basis of race, gender or disability*". Therefore, the focus is on favoring the black population with the "broad-based black economic empowerment act 53 of 2003" (BBBEE) which was then translated with a "code of good practice"[1]. The 2015 version includes guidelines on ownership, management, skills development, and the broad socio-economic development.

On top of these acts, in 2011, the RE industry was introduced with the Renewable Energy Independent Power Producers Procurement Program (REIPPPP). This special procurement program enables private investment in large and small energy generation across South Africa. It combines previous goals explicated in the Integrated Resource Plan 2010-2030 (IRP 2010) and the National Development Plan (2030). The first one indicated the necessity of an additional 17 800MW of power from RE by 2030. The second highlighted how the energy sector should be a leader in the production of economic infrastructure and inequality reduction. Thus, the REIPPPP embodies a twofold objective: it aims at developing RE while contributing to the delivery of jobs for the black community and promoting upliftment and broadening economic ownership.

The program has known six auction rounds as of 2020. Practically, it is an auction process in which Independent Power Producers (IPPs) compete with projects. They are, then, graded and awarded by the Department of Energy based on the quality of their Economic Development (ED) plans (e.g. their contribution to job creation, the level of supply of materials from local enterprises etc.) and the estimated cost of generated power. In this model, cost weights for 70% of the attributed grade, while the ED considerations weight for 30%. Despite this numerical unbalance, the ED plans appear to be the determining and crucial factors. Indeed, the market for RE cannot compete solely on cost. All IPPs offer similar electricity costs. Thus, projects can only differentiate themselves in the eyes of the Department with ambitious ED strategies.

Yet, in practice, to what extent does this involvement in local economic development benefit local host communities and enable to shape community responses?

[1] In the South African context, "black" refers to previously disadvantaged people, *i.e.* Black African, Colored and Asian individuals. To attempt at offsetting the legacy of inequality in the country, companies are legally urged to engage with positive discrimination policies and thoroughly document the outcomes of their actions.

3.2. / The EPC Company: characteristics, ED and community engagement

This question was explored by investigating an EPC company and its corporate management regarding the host communities of two solar projects.

The firm is a South African subsidiary of a European group. The branch constituted a project development, EPC and O&M (Operations and Maintenance) company focused on solar PV (utility-scale and commercial) and onshore wind energy. Its strategy was to represent a one-stop-shop for clients willing to develop REI projects, by offering a comprehensive range of services to implement these. Yet another particularity of the structure was that it did not own or manage any project. Instead, it worked on developing and delivering them, finding investors, and selling the projects before their construction.

In the context of the REIPPPP, the company had an ED department. Practically in this EPC company, ED was divided into two sub-departments:

- ED as considered in the REIPPP program which is about compiling and monitoring substantiating documentation and monthly reporting after that the strategy regarding ED has been drafted and approved for an awarded project,
- IR (Industrial Relations) considered as community engagement activities which are about maintaining a positive communication between the local stakeholders and the company with the help of Community Liaison Officers (CLOs) and other field managers such as the IR Manager.

These two field employees of the EPC company are crucial for generating a SLO. The CLO is mainly responsible for maintaining a positive relationship between the community, the project, and the company, overseeing the recruitment process, and assisting with community meetings. For legitimacy matters, the CLO must be hired from the host community. Ideally, one should be appointed for each project. However, as it will be explained, the company had a failed experience at Bokamoso Solar Park which forced the company to finish construction without one. In the meantime, the IR manager is responsible for maintaining a positive relationship between the subcontractors, local workers and the EPC company and mitigating site events such as disciplinaries, strikes, workplace meetings and so on. Their role is focused on work dynamics.

3.3 / The projects: Bokamoso and Waterloo solar parks

At the time of the study, the EPC company oversaw three projects under construction in the North West Province of South Africa. Two of these were selected as case study examples for this research project because of their similar technical characteristics and timeline. The chosen projects were Bokamoso Solar Park at Leeudoringstad and Waterloo Solar Park at Vryburg.

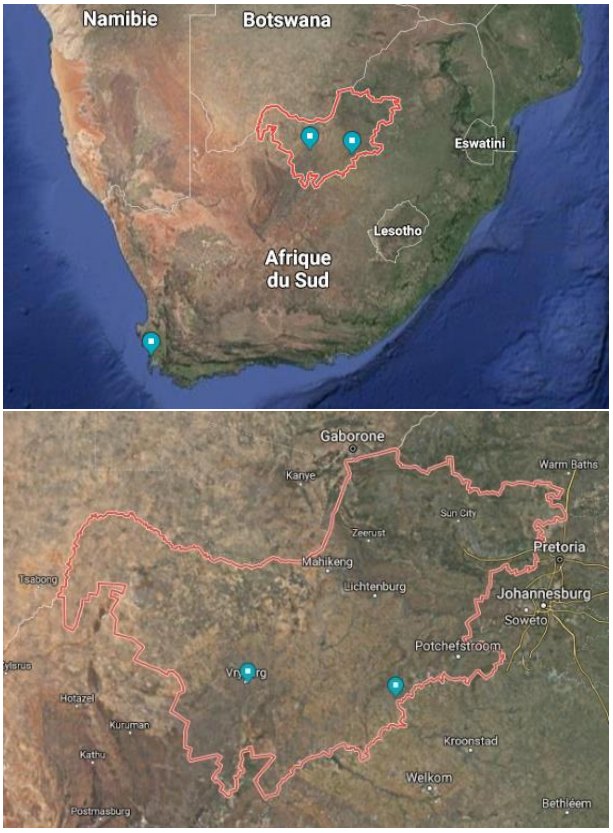
The two projects use a solar PV technology and present a production capacity of 75 MW. They are located on private-owned farms in the North West province (see figure 2).

For both projects, the studied EPC company got appointed as the EPC and O&M contractor in August 2018, for five years. They constitute third-party EPC projects as the EPC company only entered the projects after the development phase which was conducted by another firm. For both projects again, original environmental impact reports were completed in 2014 when financial close only occurred in July 2018.

According to the firm, the Bokamaso project was confronted to difficulties related to communication between the community and the company, whereas the Waterloo project represented a successful execution, where all players came together.

Figure 2. Locations of the two projects in the North West Province

Retrieved from Google Maps.



Both projects are in a region characterized by high unemployment rates, especially among the youth, and by competition between local municipalities to attempt at securing jobs for their communities. In the Dr Kenneth Kaunda District Municipality, where Bokamoso is set, 29.7% of the overall population and 39.2% of the youth (15-34) was unemployed according to the 2011 Census[2]. Similarly, in the Dr Ruth Segomotsi Mompati District Municipality, where Waterloo is located, 35.8% of the overall population and 46 % of the youth was unemployed[3]. Numbers from the 2016 census are unavailable. These numbers could be higher in 2020, even more as the accuracy of South African censuses are contested.

In rural South Africa, administrative division goes as follows: Provinces are divided into districts which are divided into local municipalities. These municipalities then include small locations, towns, or cities.

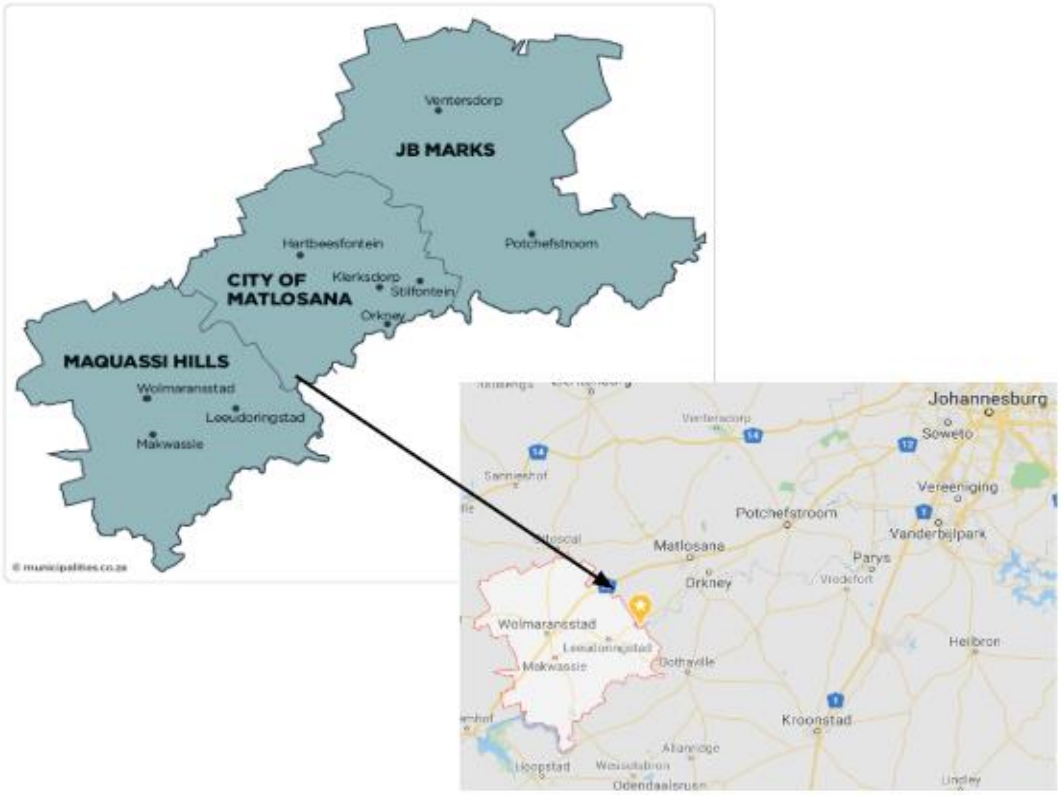
Bokamoso Solar Park is located in the district of the Dr Kenneth Kaunda District Municipality and in the municipality of the City of Matlosana. However, the closest town to the project is Leeudoringstad which is in the municipality of Maquassi Hills Local Municipalitiy (see figure 3). Because of this geographic proximity, the EPC company decided to get involved in the local economic development of Leeudoringstad first. It created major tensions as the company eventually had to deal with two different host communities.

[2] See Dr Kenneth Kaunda District Municipality's demographics at https://municipalities.co.za/demographic/140/dr-kenneth-kaunda-district-municipality

[3] See Dr Ruth Segomotsi Mompati District Municipality's demographics at https://municipalities.co.za/demographic/141/dr-ruth-segomotsi-mompati-district-municipality

In the meantime, Waterloo Solar Park is located in the district of Dr Ruth Segomotsi Mompati District Municipality, and more precisely in the local municipality of Naledi Local Municipality and in the city of Vyrburg.

Figure 3. Location of Bokamoso solar park in the Dr Kenneth Kaunda District Municipality
Maps retrieved from municipalities.co.za and Google Maps.



4. METHODOLOGY

4.1 / Methodological approach

Field research was conducted over three months, from January to March 2020, in South Africa. I was interning at the studied EPC company over this same period in Cape Town. As part of the ED and IR teams, I mainly took up the responsibilities of an ED Administrator. Each administrator oversees the collection and monitoring of substantiating documentation for one project. Overall, the ED department ensures that the social goals included in the original bid are respected and that subcontractors comply to their contractual reporting obligations. The collected documents, thus, serve as proof that local workers are legally employed, that they are indeed local, skilled, black, or not etc.

Aside from this administrator role, with my research project, I served as an in-house consultant investigating the ways the firm approached host communities, from its organizational structure to the field practice. I, then, drafted a critical assessment report highlighting operational pitfalls.

Deriving from this field work experience, this research project was a cross-sectional study. The aim was to observe corporate management of host communities and community responses at the specific moment during which the study was conducted, that is towards the end of the construction phase for both projects undergoing in the first quarter of 2020.

One field trip to the two sites was undertaken from February 17th to February 22nd. This was enabled by the EPC company. More trips were initially considered but personal financial issues made this prospect impracticable. Similarly, the covid-19 pandemic precipitated my return to France and limited allocated time for conducting interviews. Some of these were still conducted thanks to digital tools.

A comparative case study approach was preferred. The EPC company and its management of two specific solar projects in South Africa were used as the study objects. Research on social acceptance and SLO being relatively recent, it is essential to provide case studies that enable these concepts to build a practical recognition. This generated concrete knowledge is, by definition, context dependent. It enables to provide an in-depth understanding of a specific phenomenon, which is highly valuable in the fields of social sciences (Flyvbjerg, 2006). However, as Stake (2005) states, there can be several pitfalls in this approach, such as the selection of an inappropriate case in relation to the theory, a superficial case definition and the lack of rigorous research. To mitigate these, extensive research on the theoretical framework and linked themes was conducted, the cases were well-defined, and collected data was constantly questioned thanks to member checking mechanisms.

The project required the collection of primary data with interviews and surveys and the analysis of secondary data with the corporate documentation that was made available to me as well as online documentation. I aimed at working with mixed methods. Thus, data was both qualitative and quantitative. This enabled to provide comprehensive and complementary results. My approach to knowledge was interdisciplinary and set between a postpositivist and interpretive perspective.

4.2 / Data collection

This research project was based on mixed methods to combine numerical analysis with more in-depth and descriptive investigation. The involved EPC company as well as members of the local communities were

studied through the conducting of semi-structured interviews and the administration of surveys. Additionally, throughout the three months, field observation notes were taken.

First, quantitative data was collected. To that end, two surveys were drafted and disseminated to all employees of the EPC company working in the office in Cape Town and their field managers and employees – as well as local workers employed by sub-contractors. The two surveys were differentiated based on local belonging: corporate employees were asked about their beliefs on the company's position towards host communities while site workers from these local communities were asked about similar matters but brought to an individual level. Most questions applied a Likert scale or a "Yes/no/ I am not sure" dynamic. Several questions were left open-ended to give people space to express themselves more accurately. 20 people responded to the survey addressed to the EPC company's employees. 100 people responded to the survey addressed to local site workers (48 for Bokamoso, 52 for Waterloo). Practically, the first survey was disseminated via an online platform. The second survey was conducted thanks to six survey sessions organized on site and co-animated by the IR manager and/or CLO (who mostly helped with translations and explications for some of the respondents).

This step was useful to measure and identify trends and patterns in the way people consider host communities, their responses, the ED strategy of the company they worked for and its impact. These trends, then, served as hypothesis to be verified, for the following interviews, as a form of member checking or participant validation (Seale, 1999). It served as a conversation starter and it gave participants the opportunity to engage with and react to the collected data (Birt et al., 2016). This step helped in guaranteeing the credibility and the quality of the results of the research project.

Qualitative data was only collected after the quantitative aspect of the research was undertaken. Six semi-structured interviews were conducted with the key staff members of the company involved in the application of the ED strategy (Managing Director, ED manager, supply chain manager, project managers, CLO, IR manager). Inputs from site workers and other community members were collected through the survey sessions and informal discussions.

Finally, throughout my stay in South Africa, I kept a journal with field observation notes concerning the dynamics of life at the EPC company and on site. Direct observation is an important means of capturing the essence of a specific case study setting. Participant and structured observation was undertaken. Despite this method of data collection being often overlooked, it enables to finely appreciate the complexity of a social phenomenon (Martineau, 2005).

4.3 / Data treatment and analysis

To explore the quantitative data, I conducted basic descriptive analysis and attempted at conducting bivariable analysis on selected questions to check if some demographic demographics had an impact on the way people responded. All was done on Excel after I cleaned and coded the dataset.

For the qualitative data collected through semi-structured interviews, discussions and fields notes, content and thematic analysis was conducted (Vaismoradi, 2013). I followed the six steps advised by Braun and Clarke (2006). I screened verbatims and notes and let emerge recurrent themes. I tried to look both into the explicit and implicit meaning as I could refer to recordings to check speech patterns.

4.4 / Ethical Considerations

To positively add on the existent literature on social acceptance and the SLO in the RE industry and to guarantee the quality of this research project, the focus was put on one major gap of the research in this field: the corporate side.

Even though this research project was enabled by a project development company in which I did an

internship, I remained as objective as possible and critical in my assessments of their strategy and practices. Indeed, I actively compared their official stand by studying the way they advertised their ED strategy, with the actual actions taken and the host communities' responses to this very process.

As a researcher, I sought informed and prior consent from all informants before interviewing, recording, or observing them. Throughout the research process, only necessary personal information related to the sample characteristics was collected (gender, race, age, occupation). Anonymity was ensured. To protect the EPC employees' anonymity, their position will not be disclosed in this thesis. As for local site workers, it was made clear that participation in the survey would not harm their job position.

Furthermore, if the findings of the study will be made available to the company after the submission of the final thesis, the dataset will be kept confidential and will not be transferred. Generated knowledge will be used by the EPC company to improve its social impact.

4.5 / Researcher positionality

In a predominately white academic environment at Leiden, I felt legitimate to pursue research in Africa as a North African descendent. In the meantime, I admit having underestimated my position as a young white-passing woman. In South Africa, I was recognized as a foreigner by people I interacted with. It did not seem to impede my research while I was in Cape Town, a city that is cosmopolitan. The company also engaged in an open discussion with my research project and accepted to integrate me in their processes. However, I particularly felt like an outsider on the two sites in the North West province. The site environments and my research respondents were predominately composed of black African males. I managed to make clear that I did not represent the company and that the project aimed at improving the relationships between stakeholders in REI projects that are proliferating in the region. Consequently, I was faced with two widely different postures: defiance and high expectations. People would either shy away or confide in me and expect me to help them improve the situation on site on a level that I could not meet. I believe my specific researcher position limited the amount of data I ended up collecting but positively impacted its quality. I also engaged in several discussions with the ED Manager to make sure the insights I gathered are and will be utilized to improve corporate management of host communities in the near future.

Additionally, I conducted a thorough reflection process after coming back from the field following Bolton's (2018) insights. It brought me to a conscious evaluation of my personal why, of my rationale for going into this project. I came to acknowledge that there is something inherently political and biased in my research project, in the sense that I am actively engaged for an ecological transition and for making the voices of marginalized people heard. That is why this research project participates in advocating for the development of a just energy transition.

5. FINDINGS

The research project attempted at investigating how involved companies in third-party EPC projects manage host communities they interact with and their responses, in order to successfully deliver renewable energy infrastructure projects in South Africa. It focused on the corporate lenses but made local stakeholders' insights intervene to assess how corporate actions were indeed lived and perceived by their recipients, the host communities. These community observations were also utilized to explore key success factors and pitfalls regarding community engagement and the corporate ability to achieve a strong and stable SLO. Eventually, all identified elements were balanced with an exploration into what can truly be controlled and overcome by corporate proponents.

5.1 / An assessment of the community responses

It is essential to understand how the two host communities' groups received the two projects. It is about reporting on the community responses that were observed, towards the end of the construction phase. Three key elements were identified as factors critically contributing to the community responses: the individual appreciation of project-induced disruptions, the appreciation of communication between the EPC company and the host communities and the motives for community-led disruptions. Consequently, an evaluation of these responses based on the SLO continuum is attempted.

5.1.1 / Appreciation of project-induced disruptions in the host communities

Project-induced disruptions are externalities directly generated from the implementation of the projects and its operations in the surroundings. They can be positive or negative. In the studied projects, only elements concerning individual empowerment and social tensions were indicated by community members.

Workers at both sites explained that the construction of the parks significantly and positively changed their lives, their daily routines, and the ones of their closed ones. Indeed, workers expressed considerations about their newly earned financial capacity, their gained experience, skills that they will be able to utilize in the long term, and the importance of *learning* as a few workers noted that their job constituted a "*learning curve*". Some even added reflections on newly gained pride and improved self-esteem and mental health as one worker highlighted: "*my mind gets bright every day when I come to work*". At Bokamoso, special attention was given to community impacts regarding the decrease of unemployment. At Waterloo, community considerations were more approached through individual lenses: it was about a feeling of participation, of personally doing something for the community.

However, at Bokamoso, the arrival of the project awakened tensions in the local communities. The failed recruitment process led to increase the feeling of injustice and to create an environment keen to jealousy among community members. People who did not get a job on site would not only despise the EPC company and its subcontractors but also other people who got employed on the project. A 28-year-old team leader explained:

> *And there's anger amongst the community currently. Because, people who were not recruited, they ask people who were elected to work here, and tell them why I don't work. So basically it created a lot of anger between us the employees and those who wanted to come and work here. So there's divisions amongst the community. People who see us in the transport and people who are left with nothing. So instead of there's being some good, it brought lots of tensions between the community.*

5.1.2 / Appreciation of communication enabled by the EPC company

On the two projects, local workers conveyed contentment regarding the level of communication they experienced with the EPC company, even though communication flows seemed to be indirect. At Bokamoso, 84% of the respondents expressed a straightforward positive attitude. They also highlighted that they communicated with their employers, the subcontractors, first. At Waterloo, 33% of local workers respondents admitted not knowing anyone personally from the EPC company.

This figure is particularly striking as Waterloo was the only project with a CLO on duty during the whole construction phase, in addition to the IR manager that was also deployed on Bokamoso and a third project. It simply appears that the EPC company got involved and generated more communication flows mostly when things went wrong. As Bokamoso experienced more disruptions, local workers on this site came to be better aware as to who represents the EPC company.

However, the content of the interactions, the quality of the communication, was characterized as deficient, especially at Bokamoso. Information appeared as superficial and inconsistent between different actors (the EPC company and its subcontractors). At the latter site, community members did not grasp the actual benefits of the project. When Waterloo community members stated that they were benefiting from the project through their jobs, business opportunities and earned financial independence, Bokamoso community members came with an expectation posture on basic social services such as education. In addition, on both sites, there was a high curiosity and demand from community members to know more about the projects. 79% of local workers respondents at Bokamoso reported having faced questions on the project by their community. They were 88% at Waterloo (*see Appendix B, figure B1*). If at Bokamoso most of these questions concerned the *when* of social benefits and new recruitment opportunities, at Waterloo they focused more on the future of the project itself, its technicalities and *whether* it would have broader social impacts (*see Appendix B, figure B2*).

Besides, workers at Waterloo were keener to express instances of disrespectful communication. When a local worker there stated, "*I feel like they don't take us seriously*", workers at Bokamoso would often join the following statement "*they always take employees' problems very serious*". This divergence enables to confirm that the EPC company may have been more present when the situation was not optimal.

5.1.3 / Rationales for community-led disruptions

At both sites, strikes and other community-led disruptions were recurrent during the construction phase. However, the discontent groups and scope of revendications widely differed.

At Bokamoso, discontent groups included workers and the wider communities. Community members from the City of Matlosana Local District often completely blocked access to the site. They revendicated the unfairness of the recruitment process which, to them, left them out of the picture, and advocated for their high expectations on local socio-economic benefits.

At Waterloo, discontent groups only included local workers hired by specific subcontractors. They would stop working and organize sit-in on site. Their discontentment was mostly triggered by mistreatments rooted in the racial divide observed on site in subcontractors' managing bodies, unrespect of health and safety measures and the short-term nature of contracts. All these motives reveal a profound miscommunication between the company and its workers.

There appears to be a scale for revendications. At Waterloo, the main issue highlighted by workers was the disrespectful treatment they experienced when faced by a predominately white managing body. At Bokamoso, even though the issue of a racial divide between workforce and management could indeed be

observed, workers did not directly express it when asked to talk about what bothered them. They promptly tackled bigger issues, that workers at Waterloo did not even think about. Here, it seems like there is a scale for pressing matters. When things are generally undergoing with major difficulties, more urgent revendications are prioritized.

5.1.4 / Level of social license to operate

Levels of satisfaction with the projects hinted by local workers are relatively similar. When asked to rank their level of satisfaction from one to five, 90% of respondents at Bokamoso answered with a minimum of three. This level went up to 98% at Waterloo.

Additionally, this response was more dynamic at Bokamoso, where 65% of respondents admitted having changed their minds throughout the construction phase. This level dropped to 37% at Waterloo. The difference in dynamics might find its origin in a better initial approach at Waterloo, where a better satisfaction seemed to be anchored from the very beginning of the project.

These responses are to be balanced with inputs from the wider community and physical actions undertaken by community members. Thus, Bokamoso can be seen as a case of acceptance when Waterloo would be a case of approval.

Indeed, at the two projects, community responses are relatively positive. No SLO was completely achieved. Even though stakeholders accepted the project in their environments, they still expressed discontentment towards the corporate management and materialized these disagreements in disruptions unfolding at both sites (*see Appendices C and D*).

5.2 / Corporate perception of host communities and their responses

The level of SLO identified above as well as the factors contributing to its formulation are to be challenged by the internal corporate considerations regarding the communities and their responses. It is about confronting whether what has been observed on the field matches with the corporate understanding of the situation and touching on the way communities are considered in the wide range of core business activities the company ought to pursue.

5.2.1 / Corporate perception of project-induced disruptions

Most of the EPC employees appeared insensitive to the negative disruptions brought by the projects into the host communities. These externalities came to be undermined in the face of the perceived weight of benefits, including employment and experience in the solar industry. When asked to rank the ability of a project to disrupt host communities from one to five, 73% of respondents answered with three or less. They argued that the remote nature of the project prevents it from having dreadful impacts, that disruptions are often initiated by local leaders instead or that project-induced disruptions can only be positive.

Even though the benefits outweigh the negative externalities usually in the eyes of community members as well, workers suggested that the company should be in a better empathic posture that questions the ability of the project to disrupt social organization locally. An employee answered that "*these projects should not be thought as disrupting communities*". However, the reality around the Bokamoso site makes it a responsibility of the company to be aware of the negative impacts in can force upon host communities. These can include inequalities aggravation, miscommunication, and division, feeling of threatened livelihood. They

influence community responses but are certainly difficult for corporate proponents to mitigate in complex local environments.

5.2.2 / Corporate perception of the obtained SLO level

A slight disconnection between the observed level of SLO and the perceived level by the EPC company's employees can be noticed. Employees particularly expressed an exacerbated negative response at Bokamoso, being influenced by the recurrent community-led disruptions.

In line with this very statement, if most employees seem relatively knowledge-poor in terms of the specificities of local host communities, they are often made rapidly aware of issues unfolding at the sites. Words on local strikes circulate rapidly in the company in both formal and informal settings. Involuntarily, communication flows in the EPC company derives from a negative approach to community considerations.

Similarly, the EPC employees tended to misjudge the local expectations regarding communication and information flows. The CLO and ED manager collectively stated that communities did not care about the technicalities of the project and that they were mainly willing to know about recruitment and business opportunities. One stated: "*The only questions that I get are about jobs. […] It is not about what is the development, when is the closure, no. People are generally not interested in that, or the evolution of the project itself. They are just interested in are there jobs coming up? Are there you know business opportunities coming up?"*

In the meantime, the quantitative survey as well as qualitative interactions showed that there is a high curiosity among community members as to the solar plant itself (*see Appendix B*). Indeed, the industry is fairly recent in the North West province and people are not familiar with its stakes as this following statement sums up: "*they ask a lot about the solar plant, they have never seen it before and they also want to see how it looks like*".

5.2.3 / Corporate perception of the communities amid its operations

When asked to rank their level of agreement with the following statement from one to five: "Community considerations are legitimate/important for a power project", 70% of respondents answered with a minimum of four. Three rationales emerged from this positive appreciation. First, communities were perceived as essential economic factors. Their workforce and businesses are non-substitutable inputs. When projects are located in very remote areas, it is in the EPC company's best interest to source human and material resources locally. Then, some workers expressed the company's social responsibility to share benefits with the communities that help in making the projects implementation possible. Finally, engaging communities appeared to be crucial to obtaining their approval and ease project delivery by preventing disruptions that could damage the projects and company both financially and morally.

The 30% answering negatively argued in line with an underlying negative perception that has been sensed in the company. They demonstrated that the projects positively benefit the communities or that the communities are not able or legitimate to understand the implications of the projects, so that the projects should not depend on their responses. Indeed, it has been observed that, both in the company and the communities alike, narratives presented local workers as lazy and / or entitled. This approach dismissed them and contributed to an already initiated climate of defiance.

On this point, it is, however, important to note that it is the responsibility of the company to invest in making communities able to understand the project, to empower them with information they can grasp.

As showed by the percentages here, these perceptions are not shared by the whole company. As it will be explained later in this paper, the company becomes knowledge-rich regarding local communities as it encounters them. However, only a few staff members detain that knowledge and have the emotional, intercultural, and social skills to approach them respectfully. Consequently, it appeared that people considering communities negatively and undermining their experiences of the project were employees who did not possess much knowledge of the cultures of these communities and may have lower social skills. The following two statements are particularly striking as they oppose two profoundly different conception of company / community relationships. When an engineering employee advocates the sole core business activity of the company, another HR employee states that the approach should be collaborative.

> *"I understand the importance of obtaining an SLO - but I still maintain that [the EPC company] should dictate the terms/speed/quality of the work delivered, not the local community - we are providing them with employment, they can chose to either agree to our terms or seek employment elsewhere." Engineering employee.*
>
> *"It may help to have a person of colour address community & economic development issues. Furthermore, the [EPC company] representative must not come across as dictatorial in his approach with community but must have a collaborative approach." HR employee.*

5.3 / Corporate management of host Communities and their responses

After having analyzed the community responses and their perception and understanding by the EPC company, the corporate management of host communities in the two studied cases is explored. This overview enables to better grasp how the company dealt with the host communities and mitigated the social acceptance risk at both projects. The elements of corporate management presented here were selected because they derive from the way communities are considered by the EPC company's employees. They also constitute factors that, ultimately, contributed to the formation of the observed SLO level (*see Appendices E and F* for summaries).

5.3.1 / An ambitious and reflective ED framework

The studied EPC company, over all internal departments, positively approached the REIPPP program and its ED component. ED matters were rightfully considered as obligations putting pressure on companies as they require financial and time investment. But it was strongly acknowledged that, in the specific South African context, community benefits justified the effort, enabled to create long-term opportunities, and increased the chances to win project bids and to successfully deliver projects.

Compared to the norms in the industry, the studied EPC company presented an ambitious ED strategy that provided a framework for actions with host communities and that was closely monitored and audited throughout the project life cycle. On both projects, hundreds of jobs were created, and the EPC company ensured the tracking of skills upliftment. Additionally, the company developed ambitious local content strategies with programs specifically targeting women-owned businesses for instance.

Besides, most importantly, the studied EPC company grasped the importance of understanding local communities and showed a deep ability to reflect upon its own operations and scope of community engagement. Only a few months before the conducting of the present research project, another psychology student from the University of Cape Town was appointed to study the reasons for community unrest at three sites located in the

North West province[4]. A discussion was internally initiated then and is still ongoing as this very research project comes to an end. There is a genuine willingness to improve the activities in the interest of both parties, the company and local stakeholders.

5.3.2 / Deficient and limited internal communication flows

Communication within the ED and IR department and with subcontractors and local stakeholders was both efficient and ongoing. In the survey, ED administrators responded that they communicated more than 10 times with the IR team over the past 30 days. Furthermore, employees in this department also showed great interpersonal and social intelligence skills. They interacted effectively with a variety of stakeholders both physically and digitally. They succeed at creating and sustaining strong relationships with them.

However, a recurrent issue pinpointed by the conducted study was a gap in internal communication flows between the operation teams and the ED/IR team. Indeed, the latter appeared as a rather isolated entity. Figure 3 summarizes communication flows within the company organization.

Figure 4. Communication flows with the ED department

These dynamics can be problematic. ED and IR employees generate knowledge on local communities, their cultures, their responses and disseminate this information in the department only. However, these

[4] Austin, J. (2020). Investigation into community unrest. This internal study was conducted thanks to interviews, a survey only disseminated to a few site workers representatives and a desktop investigation into the demographics and local cultural norms of host communities. This study enabled to frame the present research project and to decide of an underestimated focus to explore (corporate management).

employees are not the only employees to encounter host communities. Operations teams are particularly likely to communicate with local stakeholders.

This internal gap of communication contributes to justifying the strong distinction between the way communities are approached by employees with people skills (ED, IR, HR) and people with technical skills. When the CLO and HR employees suggested to better acknowledge local cultures and respect people, a few engineering employees expressed more cynical approaches to the matter, focusing on the core business activities of the company.

5.3.3 / A bias for a negative approach to communication internally and with communities

The EPC company approached communication rather negatively at several levels, in the way that employees were made aware of the evolutions of the projects and in the way that the company disclosed very limited information to the host communities and communicated mostly when there were issues unfolding at the sites.

First, employees of the EPC company seemed to be made aware of issues on site mostly. These were the main elements that were communicated in meetings and in informal settings when community engagement matters arose in discussions. A respondent to the survey disseminated to EPC company employees stated that discussions "*reduced drastically in the past few months – due to less strikes / threats at the site.*". Also, an interviewed employee explained that when people are aware of what is happening on site, it is "*kind of bad news*".

Then, similarly, the company engaged in communication with local workers and other community members especially when the situation was degrading. Indeed, the company tended to invest more time and effort to intervene to resolve issues. This dynamic contributes in explaining why Bokamoso local workers had a better visibility as to who represented the EPC than at Waterloo. It also explains why employees mostly referred to strikes and other disruptions at Bokamoso when asked what they knew of the current situations at the two projects.

Besides, these limited communication flows and spaces between the company and the community results from the defiance expressed by the company towards the disclosing of information to the communities. The EPC company workers seemed reluctant to sharing information whereas local community members demanded more transparency, consistency between the EPC and its subcontractors and a continuous stream of information through regular public meetings for instance. A former local worker at the Bokamoso park explicated: "*In future I honestly think [the EPC company] should have a team of people who work directly with the community people who can call mass meetings regularly someone who can advise, who can relate, a team that will teach people about the project someone who can layout a proper plan, someone who has the interest of both [the EPC company] and the community at heart."*

Internally at the company, communication was perceived as risky. Indeed, a precise balance must be found between disclosing too much information that would confuse local stakeholders and disclosing not enough information which would frustrate the same stakeholders. Yet, the company seemed to have fallen in the trap of closing communication streams altogether instead of navigating a balance. It has limited the number of public meetings, preventing the creation of spaces of communication and collaboration, and stopping official information to go out of the sites (information still spread through local workers). It was also often mentioned that having a non-knowledgeable host community was better for the project delivery. This limitation of communication and information streams was used as a social acceptance risk mitigation action.

5.3.4 / An appropriate tendency to narrowing the definition of "community"

The EPC company appeared overwhelmed by the concepts of SLO and of "community" when it initiated their community engagement operational and strategy questioning and improvement process. If the ED strategy was formalized early on and offered a framework for community interactions, community engagement was not specifically formalized in a routinized guideline, which explains why actions undertaken differed at both projects. This issue is being addressed internally. However, one interesting question it created concerned the notion of "community". It seemed unclear what the word entailed.

For the two projects, the corporate approach was to narrow the scope of the local stakeholders and "community" to interact with. In the REIPPPP guidelines, communities that are to benefit from ED activities are all comprised a 50 kilometers radius. However, the company selected to recruit and, thus, have an impact on the municipalities that were geographically the closest to the sites. Similarly, the company tended not to involve political leaders and focus its interactions to potential local workers and local workers. Both choices seemed appropriate and are justifiable. The EPC company is responsible to make the subcontractors provide transport for workers' daily commute and it makes sense to attempt at reducing the time and distance for this commute. Closest municipalities are also to benefit from the project in priority as it may be located on their lands and they will live with the impacts of the implementation. The non-involvement of political figures was widely recognized as wise to avoid greedy politicians to attempt at capturing excessive value out of the project.

Nevertheless, the company overlooked the necessity of community building actions. Indeed, as implied in the SLO, a community is nothing more than a network of stakeholders to begin with. It is the responsibility of the corporate proponents to create a sense of community belonging around the project to be built.

5.3.5 / The overlooked influence of race on the field

When visiting the sites, it is particularly easy to notice the racial divide existing between the manual labor force which is mainly constituted of Black Africans and some Coloreds and the managing body of subcontractors which is widely composed of White South Africans.

This issue was not brought up by workers and other community members at Bokamoso, but it was very much at the core of discontentment at Waterloo. Indeed, people at this site would often even highlight mistreatments and justify them by racialized interactions.

In the EPC company, it was mostly Black employees who would be conscious of this issue. An employee confided: *"I mean, I heard them talking before to the people, and I wasn't impressed. And you know, the people also complain about that. You know 'we don't mind working, but if people are going to treat us as if we are still in pre-1994[5], then it is a problem'."* When asked whether this subcontractors' managing body was aware of these dynamics, they replied: "*No, they are aware. They know exactly what they are doing. They are very much aware. I think it is ingrained, it is the way that they think, that is how black people should be treated. You see it, you sense it."*

5.4 / Environmental factors of community responses

The environments the projects are implemented in have significant impacts on the way information gets transmitted and integrated by people and, eventually, on community responses. External factors also participate

[5] In 1994, the first multiracial general elections occurred in South Africa. It marked the end of Apartheid.

in shaping the way corporate proponents of infrastructure projects decide to go about a community engagement strategy. They also may force them to change and adapt their actions as they go.

5.4.1 / Local rules of the social game: corruption, strikes and entitlement

The two studied projects were introduced in municipalities tainted by corruption, both in political institutions and informal groups. It led the projects to continuously face attempts of value capturing by third parties that had no direct interest in being involved. On informal groups, both projects had to navigate through "construction mafias"' imperatives and invest effort to manage to divert them[6]. Regarding political corruption, the EPC company learned from its mistakes at Bokamoso. The construction of the latter started earlier than Waterloo. As political leaders are part of local stakeholders (in all social acceptance theories), the company informed them and tried to get their involvement and inputs. Two issues arose from this approach. First, the City of Matlosana Local District municipality initially refused to cooperate with the company and its project. They refused the recruitment process being launched in their communities. Nevertheless, a few months in the project construction, they changed their minds and wanted in. The company found a middle ground and created jobs for the community, but apparently not enough which generated community discontentment. Secondly, the company hired an initial CLO with a personal political agenda. He used his job as a platform to advertise for himself and gain social engagement. To that end, he proceeded to share misleading information regarding the benefits of the project in the community, which further exacerbated community-led disruptions as it created unmet expectations.

At Waterloo, however, the EPC company did not involve political institutions. It informed the municipality of its operations but was particularly attentive to community inputs. For instance, when the municipality tried to get the company to use their official unemployment databases, the community advised that the company should create their own after putting in place a fair and just recruitment process. Indeed, community members were reluctant to use a database they believed to be biased.

Similarly, if corruption is an external factor that the company cannot control but has to be aware of in order to offer a fairer model, the company also needs to understand local cultural specificities regarding social norms and the way communities interact together and with new entrants or opposing actors. Local cultural norms and demographics were not extensively investigated for this research project (because it was previously done internally in the EPC company and because it would have required more means) but general trends can be pinpointed. Recourse to strike is almost cultural in this way that it is a normalized means of making revendications heard[7]. This gets exacerbated with a widespread perception of an entitlement culture in this region of South Africa. Numbers of employees at the EPC, local workers and other community members alike expressed that their local citizen counterparts felt entitled to socio-economic benefits, without providing the necessary effort. Here the corporate narrative might feed in this attitude as the projects are presented as means to directly help the community. The discourse should be clearer, broadened and made part of a wide South African benefit.

[6] "Construction mafias" are organized, disruptive and pressure groups that demand high stakes in infrastructure projects across the country, especially since 2016.

[7] See Sibanda, K. (2014). Exploring the incidents of strikes in post-Apartheid South Africa. *International Business & Economics Research Journal*, 13(3):553.

5.4.2 / Community dynamics and social tensions

The dynamics internal to communities are complementary factors that shape the corporate management of an energy infrastructure project. Around Bokamoso, the City of Matlosana Local District and the Maquissi Hills Local Municipality are opposing municipalities. Inhabitants of the City of Matlosana Local District feel superior when the inhabitants of the Maquissi Hills Local Municipality feel inferior to the other municipality. This articulation is historically rooted in the prevalent industries in both locations. Matlosana is ruled by mining and its inhabitants are, thus, wealthier. Maquassi is mostly inhabited by people working in agriculture, which pays lower wages. This opposition exacerbated tensions on site and created jealousy situations among the citizens of this geographical region.

At Waterloo, the issue was different. The closest inhabitation unit is a city, Vryburg. On top of the agitation that normally comes with a city, the municipality was (and is still) going through major troubles concerning failed provision of basic social services (water, electricity, education and so forth) as figure 5 illustrates. Consequently, people seemed more invested in these pressing matters rather than the project. They were less emotionally available for the project. The situation is profoundly distinct at Bokamoso where the closest units are towns and townships without much activity. People of these locations were, thus, more likely to get involved in the life of the project.

Figure 5. "We want water" tag in downtown Vryburg

5.4.3 / Remote Nature of Projects

Finally, the remote nature of projects also participates in the formation of community responses, in different manners depending on the initial social dynamics that were just described above. Both projects require local workers to be transported by appointed buses for their daily commute. This trip requires major organization and is not done by anyone, at any given time.

At Bokamoso, where the community life is relatively stable, this remote location still awakes the interest and curiosity of people. They want to know what is happening. In the meantime, at Waterloo, this remote characteristic gets blurred in the climate of social tensions. People tend to forget about the project and do not show much interest for it, even more so that they do not feel its presence.

6. DISCUSSION

Finally, it is necessary to evaluate the relevance and efficiency of the theoretical framework used in this research project for the specific South African context. If the SLO represents an ambitious ideal for all infrastructure projects, its application in the two studied cases appeared hindered by practical problems related to the particularities of the third-party EPC project delivery model and the latent lack of trust observed in the involved host communities. The highest SLO, thus, seemed to be an unrealistic goal to achieve.

6.1 / The particularities of a third-party EPC project

It is a given that a high level of SLO implies great financial and time investments. Indeed, it is about building a strong relationship based on legitimacy, credibility, and trust. It requires the corporate entity attempting at formulating a social license to be extremely aware of the environment it encounters and to engage with local stakeholders as early as possible. Ideally, this engagement commences with the development phase. Local inhabitants are informed of the possibility of a project in the coming years. It is, nonetheless, extremely important here to make them aware of the project and of the possibility of its failure. Companies should not go into that development phase promising anything. However, in practice, to gather all permits, leases, contracts and social acceptance, developers tend to embellish the scope of socio-economic benefits the project will produce for the inhabitants of the local area.

In a third-party EPC project, the dynamic switches and gets complexified. A new corporate actor is mandated to pursue the construction phase of a project that has been developed by another firm. For local inhabitants this change materializes in a change of interlocutor, which can awake confusion. Besides, this situation often comes with a modified corporate narrative and discourse. The promises made by the developers and other actors are to be confronted, objectively addressed, and fact-checked, which can lead to disappointment.

The SLO is, thus, particularly difficult to obtain when there is a wider diversity of interlocuters for local stakeholders, which increases the risk of inconsistent communication. This risk already exist in other project delivery models as a project generally involves a developer, that can stay at the table until exploitation if it can carry the activities until then, subcontractors and a project owner. The issue is only exacerbated in third-party EPC projects because it adds yet another actor and, because the developer is out of the picture and cannot be held accountable anymore.

6.2 / A framework difficultly applicable in an instable socio-political environment

In the theory, the highest level of SLO, psychological identification, is achievable once local stakeholders trust the proponent companies. Some observable elements of such a high-quality level of relationship might be the local inhabitants advocating for the project, presenting a united front with the companies and political leaders and institutions showing support.

However, in the studied cases, it seemed objectively unrealistic to expect the EPC company to manage to get to that point. Indeed, it evolved in environments in which communities did not trust their own institutions, actors they have known for most of their lives[8]. During interviews, discussions and survey sessions, participants

[8] Distrust and defiance in societal institutions is a widespread issue in South Africa. Most recent data on the matter was collected by Edelman in their "2020 Trust Barometer". It is accessible online at: https://www.edelman.com/trustbarometer

made clear that they were defiant of their own local government and its ability to improve the social condition. At Waterloo, when the company first offered to use the local municipality employment database, it was citizens who preferred the company to create its own unbiased database. It, then, appeared difficult for host community members to trust a completely new entrants in their environments. At the two projects, during survey sessions organized with local workers, respondents laughed when asked about whether they trusted the company and many preferred not to answer the question (see Appendix C).

Similarly, this highest level of SLO can only be achieved with open and continuous communication. If the studied EPC company failed on that aspect at some levels, it went into the projects with ambitious community engagement goals to start with. Public meetings were indeed organized. Nevertheless, they quickly became platforms for disruptive forces to spread their narratives. Consequently, the EPC company shut down these spaces to avoid false information to be leaked to community members. The choice is understandable in such a complex socio-political climate. But the company should have resumed these actions when the situation got calmer.

7. CONCLUSIONS & RECOMMENDATIONS

This research established that, overall, both studied projects generated two positive community responses levels during construction. However, the highest level of SLO was not achieved. Community-led disruptions were still occurring, and community members pinpointed deep communication issues with the EPC company and/or its subcontractors.

These results were, then, confronted to the way the EPC company considered the communities and their responses internally. It appeared that a skewed, over-optimistic, perception of project externalities was normalized in the EPC company's workforce. Nevertheless, most of the company, and especially employees with high interpersonal skills, considered communities as essential factors for the success of projects.

Additionally, an exploration into the applied strategies and actions undertaken by the company to deal with, manage and mitigate the social acceptance risk arising from community responses was deployed. These elements of corporate management towards the communities derived from the way the company considered the communities and partly justified the observed level of SLO at each project. Especially, it appeared that community engagement considerations were framed by an ambitious, accountable, and reflective ED / IR strategy and department. However, communication flows in the EPC company and with local communities ought to be improved. A negative approach to communication seemed maintained.

Particular attention was, consequently, given to external factors that impacted community responses and the social acceptance risk but that the company might not have been able to control efficiently. Local cultural rules of the social game as well as the ongoing socio-political conjunctures influenced the ways people expressed satisfaction and discontentment and their emotional availability to be interested in the evolutions of the projects.

This research aimed at contributing to the dearth of knowledge on community responses to REI in the global South. It did so by exploring the corporate management of host communities, its success factors, and pitfalls, in the context of two third-party EPC projects that were under construction. The assessment of the local community responses enabled to dive into the elements of corporate practice that shaped these attitudes and to highlight their limitations. This study was profoundly anchored in the practitioner world and ought to be utilized to improve corporate strategies towards local stakeholders in developing countries.

Academia often appears as a closed circle with very few ties to the outside world. It seems disconnected. Yet, I strongly believe that academic research should be relevant for practitioners. Expertise on practical issues should be fostered and made available for professionals working in NGOs, associations, unions, companies, to improve their operations.

Businesses are in permanent contact with marginalized populations. They are stakeholders, be they employees, clients, prospects, externalities recipients and so on. However, business units might not have the expertise to interact with them in efficient ways. It is understandable as it is not part of their core business. Here, academia has a key role to play. Social sciences and humanities detain skills, competencies, knowledge to efficiently guide corporate actors to have a real positive social impact.

Therefore, I am ending this thesis with actionable recommendations I have identified throughout my research project on the field and afterwards regarding community engagement in REI projects in South Africa. They are addressed to corporate proponents but could be considered by South African policy makers as the REIPPP is a program that should also be improved.

As it was touched on, **ideally, the project development firm should stay at the table until project delivery**. It is in the best interest of the corporate proponents which want the project to be successful and of host communities which want to benefit from the project and not be negatively disrupted by its activities. It

enables the corporate interlocuter for communities to remain the same which eases communication and can prevent community discontentment.

However, it is acknowledged that this very scenario might not always be possible to stick to. Indeed, in the studied cases, the project developer went bankrupt. Consequently, another company had to be appointed to deliver the projects.

These following recommendations mostly concern **third-party EPC projects** and focus on the **construction phase**. They consist of good practice elements. They all answer specific issues and needs identified in the studied cases. Overall, they are believed to improve the understanding of local "rules of the game", to enable a better consideration of host communities and, ultimately, ease project delivery by mitigating social acceptance risks that can be dreadful during construction.

Some of these were already partly put in place by the studied EPC company (or were actively considered). They are just mentioned here as they should be extended to the whole industry.

They target three aspects of project implementation: the pre-construction phase that should be a dedicated time to understand the local social reality, the project procurement and subcontracting process that should be particularly sensitive to what the local environment has to offer, and the core of the community engagement strategy that should make more place for community members to actively participate.

7.1 / PRE-CONSTRUCTION: Understanding the local reality

7.1.1 / Conduct a secondary community analysis led by anthropologists

The first community analysis is conducted during the development phase, years before the start of construction, and by the project development company. In this timespan, the social dynamics can change widely. Because the analysis is undertaken by another actor, there is a need for the EPC company to reclaim that knowledge and create a relationship with the community.

The proposed solution is to conduct a secondary community analysis closer to the construction phase that would offer an in-depth understanding of the local cultures, with the help of trained anthropologists.

This secondary community analysis should be conducted by the project owner (as they are the actor that will be overseeing the project in the long term) but with the assistance of the EPC company and its CLO (so that the latter can grasp the generated knowledge to ease project delivery through the construction phase).

The analysis should start right after the development phase, when the development risk is completely lifted (that is to say, when the project carriers are certain that the project will indeed be delivered because they have the permits, technical evaluations are positive etc.). It cannot be conducted before as, in the case that the project fails, the second analysis would have created expectations that cannot be met and that are dreadful for the communities (which could be reluctant to new projects coming in their environments afterwards).

The analysis should focus on the closest communities to the project (and not all communities included in the 50km radius advised by the REIPPPP).

This "analysis" should also mark the start of an active dialogue and consultation process. It is not only about the company gathering information but also about future host communities sharing their thoughts and the company disclosing information as well.

If the analysis is outsourced (as it is often the case), the appointed company should be contractually obligated to involve anthropology experts from the closest university to the project site and the CLO (which is to be employed early on then).

7.1.2 / Organize intercultural workshops and trainings

Throughout its involvement, the EPC company becomes knowledge-rich when it comes to understanding local communities because it directly interacts with them (for recruitment, public meetings, individual solicitations etc.). However, the created knowledge is concentrated in a few staff members, most often the ones in charge of ED obligations and IR / Community Engagement matters. These employees also show great communication skills. Yet, these same employees are isolated in the company and are not the only ones dealing with the communities.

Additionally, on the field, miscommunication between corporate representatives and host communities' members is recurrent. It creates discontentment, false expectations and may lead host communities' members to feel mistreated.

The proposed solution is to organize regular intercultural workshop sessions with all the employees who are to encounter host communities of projects and with managers of subcontracted firms, to train them as to how to interact in specific intercultural settings.

The secondary community analysis should provide a report and an intercultural brief that could be used during trainings. The appointed community analysis company should be contractually obligated to provide these two deliverables.

The content of training sessions should, then, be adapted to the specificities of each project and its host communities. One "one-size-fits-all" training cannot be conducted. But it is in the company's best interest to have an outline template ready with some general advice on intercultural communication and the South African heritage of interracial relationships.

Trainings should be organized and animated by ED / IR staff members who have or are currently working on the project to be analyzed.

Trainings should be addressed to all employees planning to visit the sites punctually or to work there temporarily and to managers of subcontracted firms, even though they are said to be "local", at all hierarchical levels.

The purpose of such training sessions should be to provide people who are to encounter host communities' members with the knowledge of the local socio-economic reality and cultural norms, communication skills and tools to communicate respectfully and a reminder of the scope of benefits the project is to bring (so that all corporate proponents can present a united front on this point which will help with expectations management).

7.2 / PROJECT PROCUREMENT AND SUBCONTRACTING: Seizing the concept of "local"

7.2.1 / Make local content strategies more local and socially just

Local content procurement is an ED obligation of the South African REIPPP program. It is about sourcing materials and services locally to produce the project. However, "local" here only means South African. It pushes project constructors towards several diverting practices. Often not from the close project environment, they call on subcontractors that are headquartered in major cities, far away from the project sites. They also end up working with the same list of companies on different projects. Some of these practices are understandable but arguable. Indeed, it is easier to build a trustful relationship with companies that work together regularly. It enables the constructor to know how to manage its subcontractors efficiently. Additionally, it can be tricky to find true "local" companies able to deliver the required services when the renewable energy industry is not fully

structured in some rural areas. But constructors can and should try to include more local companies to structure this industry.

The proposed solution is to redefine “local” as in province local or, better, community local and launch ambitious strategies targeting local businesses, particularly owned by marginalized unprivileged populations.

This recommendation requires companies to stand as pioneers in their approach as it is not actively encouraged by the policy. A dedicated supply chain manager should be hired and work towards the drafting of these ambitious strategies for each project.

These strategies should be based on community analyses and the identified skillsets in host communities. The skillsets should be exploited first.

When the local skillsets and competencies are not sufficient and when the projects are located in remote sites, the constructor could source services and materials in the closest big city or the province capital.

The strategies should particularly look at marginalized populations: the South African historically marginalized and/or women.

7.2.2 / Introduce racial and ethnic representation in the managing body on the field

A significant part of workers discontentment is rooted in subcontractors’ managing bodies appearing at disrespectful, non-understanding and racially unsensitive. There is an observable racial divide between managing bodies and the labor force on the field. Power relations are racialized. Managers are often white male when local workers are mostly black. In a country that is scared by the legacy of the Apartheid, there is a profound need to tackle these dynamics. They consist a brake to the economic development of historically marginalized people and lead to disruptions in the project delivery process.

In addition to the intercultural trainings, the proposed solution is to oblige subcontractors to employ part of their managing body locally (in the host communities or the closest bigger cities), in a way that it enables racial representativity.

The constructing company should contractually oblige subcontractors to hire a certain percentage of its operational managing body locally. The chosen percentage should reflect the local demographics but be balanced with the available skillset locally.

This strategy should be drafted in collaboration between the supply chain, the ED, and IR / Community Engagement managers.

The constructing company should oversee the recruitment process and, thus, invest in HR capabilities.

7.3 / COMMUNITY ENGAGEMENT: Communicating controlled information

7.3.1 / Make local workers spokespeople for the project and the company

There can be a deep lack of knowledge concerning the projects in the communities about the project but also a great level of curiosity (mostly about benefits in terms of employment, local businesses opportunities and social projects). Community-led disruptions are rooted in this lack of knowledge. Community members have high expectations that are not challenged and fact-checked by the companies: they expect contracts to be reconducted, they expect large social projects to be undertaken etc. Rumors also form easily in this context. Companies have trouble to manage communication flows and to let go of some information. To protect their

operations and avoid being misunderstood, they often end up in the pitfalls of not disclosing enough information and closing all possible communication streams (by not organizing public meetings for instance).

The proposed solution is to invest in education and training for local workers regarding information on the project and its benefits for the community. They know the community, they should know about the company and the project, to spread true, verifiable, and accessible information in their circles.

Training sessions should occur regularly, in the meantime as public meetings. Trainings should be a space for dialogue. It is about the company disclosing elements of language and information that the workers should disseminated around them but also about gathering insights and early complaints if any.

These five recommendations were selected for their innovativeness in the industry because they consist of profound changes. However, additionally to these, good practice specific to the South African context includes appointing well-trained and local CLOs for each project, informing but not involving local political actors to prevent inappropriate attempts to capture value, not engaging with construction mafias, fostering constant dialogue between the parties (and creating spaces that allow for such communication), engaging with the geographically closest communities (instead of the advised 50km radius), engaging in community building activities (and understanding that the concept of community is evolutive and has to be actively constructed by involved companies), organize fair recruitment processes etc.

As hinted in the introduction of this section, it would also be crucial that the policy gets improved to uniformize the practice over the industry.

Finally, further interdisciplinary research on topics related to community engagement and social acceptance risks in REI projects should continue to be conducted in non-Western countries, where the stakes are profoundly different than what is known in the West. In South Africa especially, attention should be given to expectations management and the lack of trust in institutions that seems to impact the way communities react to new corporate entrants in their environment. Long-term studies over the whole life cycle of projects (from ideation to commissioning or even dismantlement) could be particularly interesting as they would significantly add to the available knowledge on the topics.

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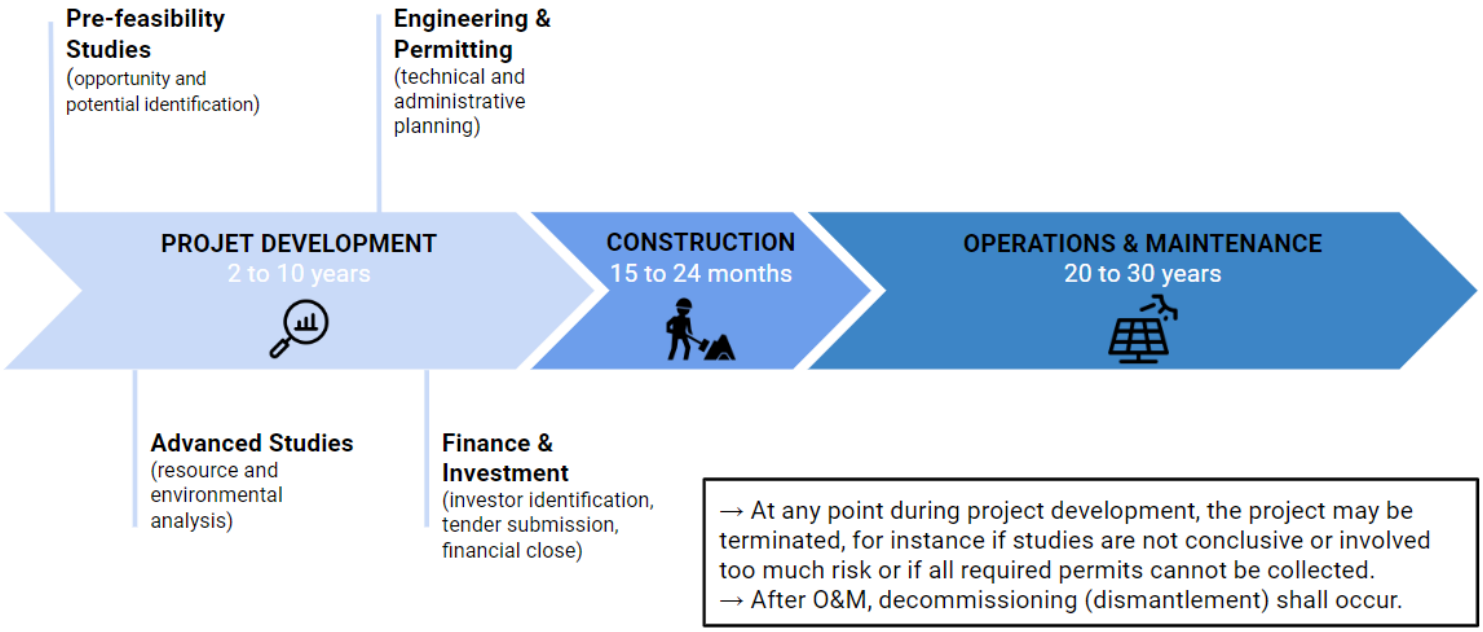
APPENDIX A.

Simplified renewable energy infrastructure project model



APPENDIX B.

Community curiosity at Bokamoso and Waterloo solar parks

Participants to the site workers survey were asked whether they were faced with questions regarding updates on the projects by members of their communities. Figure B1 illustrates the levels of community curiosity observed at both sites. Table B1 summarizes the recurrent topics of questions respondents were faced with.

Figure B1. Community curiosity levels at both sites

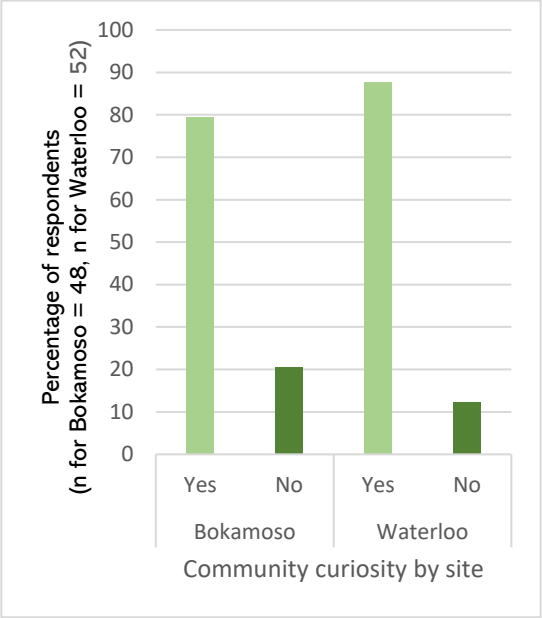
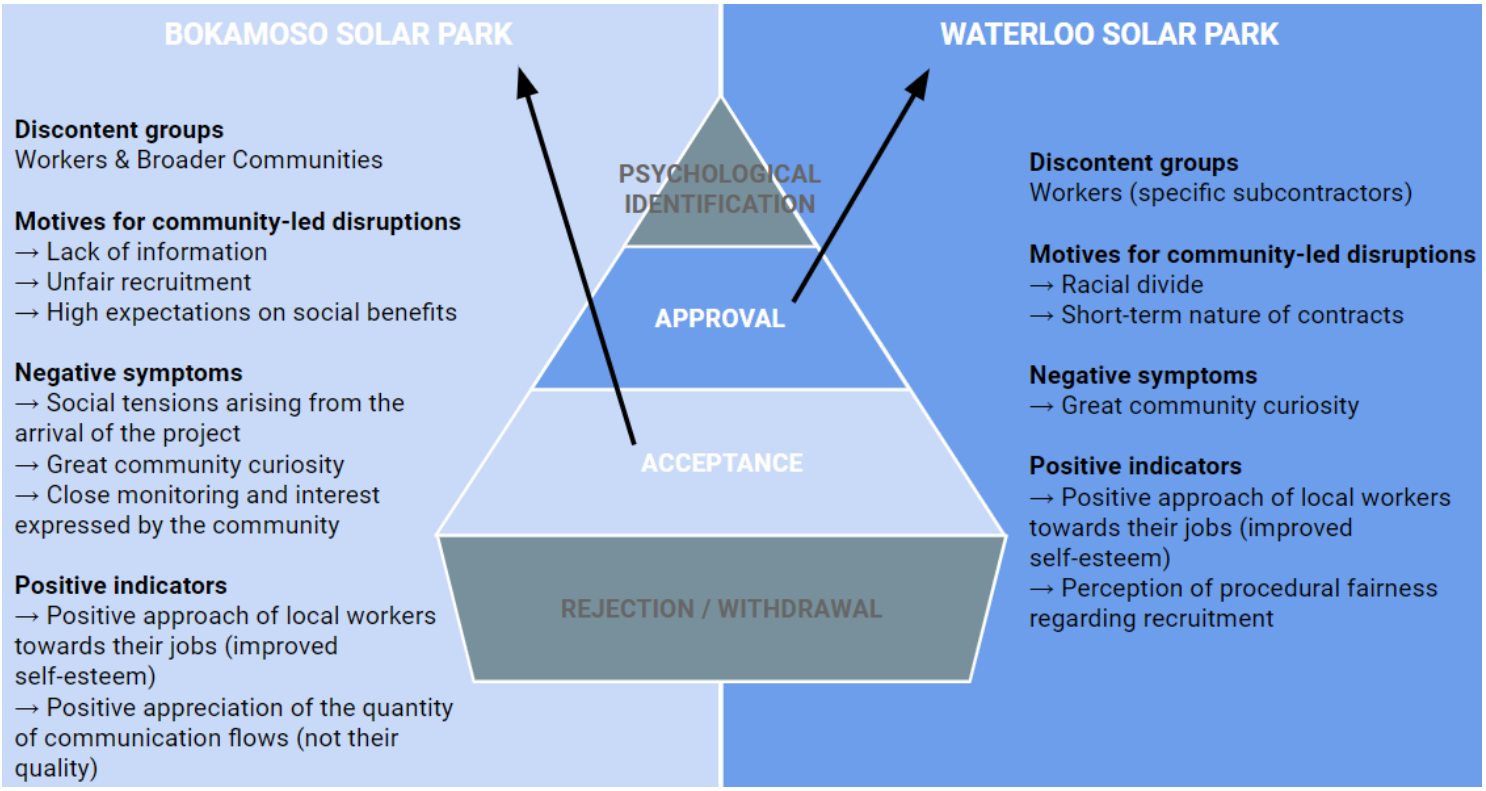


Table B1. Topics of questions received by site workers

Topics of questions received by site workers	Bokamoso N = 48	Waterloo N = 52
	% response	
Job description	20,5	22,4
Safety on site	7,7	4,1
Treatment by employers on site	5,1	4,1
Community benefits / Expectation posture	33,3	-
Community benefits / Opportunity posture	5,1	20,4
Potential recruitment opportunities	20,5	24,5
Technicalities of the solar plant	12,8	16,3
Future considerations	-	20,4

APPENDIX C.

SLO levels at Bokamoso and Waterloo solar parks



APPENDIX D.

Quantitative data extract on statements testing with site workers

Participants to the local workers survey were asked to rate their level of agreement with 16 statements. The following statements were selected to be disclosed here as they enable to assess the accuracy of each level of SLO at the two projects. However, the observed data must be balanced with inputs from community members who are not site workers. These numbers do not suffice to assess the SLO level surrounding each site.
Data is disclosed in percentages of respondents (n for Borkamoso = 48, n for Waterloo = 52).

			Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree	Prefer not to say	Total
ACCEPTANCE	"The company provides true, accessible, and understandable information."	Bokamoso	8,3	12,5	8,4	20,8	33,3	8,3	8,3	100
		Waterloo	1,9	15,1	7,6	5,7	35,9	26,4	7,5	100
	"I have accepted the company's presence and its activities in the area."	Bokamoso	2,1	8,5	4,3	10,6	61,7	12,8	0,0	100
		Waterloo	1,9	0,0	0,0	1,9	54,7	41,5	0,0	100
APPROVAL	"I feel proud of the project being in my locality."	Bokamoso	4,4	0,0	4,4	6,5	41,3	43,5	0,0	100
		Waterloo	0,0	0,0	0,0	2,0	41,2	54,9	2,0	100
	"I would support the company and the project if I were asked to."	Bokamoso	2,2	2,2	4,4	6,5	43,5	34,8	6,5	100
		Waterloo	0,0	0,0	1,9	0,0	37,7	56,6	3,8	100
PSYCHOLOGICAL IDENTIFICATION	"I feel like the project is completely part of the environment and the community."	Bokamoso	4,2	4,2	4,2	18,8	45,8	22,9	0,0	100
		Waterloo	0,0	0,0	7,4	3,7	33,3	51,9	3,7	100
	"I trust the company."	Bokamoso	8,7	2,2	4,4	13,0	37,0	21,7	13,0	100
		Waterloo	1,9	0,0	0,0	5,6	50,0	22,2	20,4	100

APPENDIX E.

Overview of corporate management key success factors

Key success factors are elements that positively influenced the observed levels of SLO.

Themes	BOTH PROJECTS	BOKAMOSO	WATERLOO
Operational Processes	Reflective ED/IR departments Extensive communication flows internal to the ED/IR departments (what is observed on the field can be reported to the hierarchy easily)		
HR Capabilities	High internal interpersonal skills in the ED/IR and HR departments Responsive and polyvalent IR Manager		Trustworthy Community Liaison Officer (CLO) recognized in the community as such Fair recruitment of local workers
Community Definition			Limited political engagement
Communication with communities			Early and continuous communication (the CLO was involved with the project development firm and ensured continuity and consistency)
Subcontractors Management	Clarification of EPC expectation in a contractually binding document (the Site Level Agreement)		

APPENDIX F.

Overview of corporate management pitfalls

Pitfalls are elements that negatively influenced the observed levels of SLO.

Theme	BOTH PROJECTS	BOKAMOSO	WATERLOO
Operational Processes	Isolated ED/IR departments (lack of communication flows with operations teams) Negative approach to information sharing (focus on issues)		
HR Capabilities		Failed experience with the CLO	
Community Definition		Political engagement	
Communication with communities	Greater involvement when the situation deteriorates	Lack of consistent communication on the actual benefits of the project (creation of high expectations)	
Subcontractors Management	Inconsistency of information between the EPC and subcontractors Racial misrepresentation and disrespectful hierarchical relationships		