COMMUNITY ENGAGEMENT IN GEOTHERMAL DEVELOPMENT IN UGANDA. CASE STUDY OF KIBIRO GEOTHERMAL PROSPECT.

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ABSTRACT

Geothermal development in Uganda like any other development projects in other parts of the world has been met with a number of non-technical barriers which when not properly handled can have devastating effects on projects. These non-technical barriers include lack of awareness and information by stakeholders on the concept of geothermal energy, very high economic expectations and various environmental misconceptions about such developments. The Kibiro Geothermal prospect has hot springs that have been held in high regard culturally by the Bunyoro Kitara Kingdom and its subjects for centuries. Therefore, the proponent has to convince the Kingdom and its subjects that these developments will have no effect on their cultural sites. However, these barriers can easily be mitigated by carrying out continuous and extensive geothermal sensitization, workshops targeting the relevant stakeholders. The Government of Uganda applied a number of strategies that include tours to Olkaria Geothermal project in Kenya, site meetings, social media outreach and information sharing, one on one interaction with opinion leaders, workshops with the cultural leaders of Bunyoro Kitara Kingdom. These strategies whose aim is to obtain a social license, gain trust and approval for the project have yielded good results. This notwithstanding, there are a number of barriers that are encountered by the project proponents which include mobilization of funds to implement the different engagement strategies.

1. INTRODUCTION

A community is defined as "a group of people united by at least one common characteristic such geography, shared interests, values, experiences, or traditions. Community is also a feeling or sense of belonging, a relationship, a place, or an institution (CDC, 1997). Community engagement means the process of working collaboratively with and through groups of people affiliated by geographic proximity, special interest, or similar situations to address issues affecting the well-being of those people. A community is also a powerful vehicle for bringing about environmental and behavioral changes that will improve the health of the community and its members. It often involves partnerships and coalitions that help mobilize resources and influence systems, change relationships among partners, and serve as catalysts for changing policies, programs, and practices (CDC, 1997). From the start of the geothermal exploration in Uganda, community engagements have been carried out to build trust between the local communities and the staff of the Geothermal Resources Department and to obtain a social license to operate in Kibiro village.

Kibiro is a village located in Kigorobya Sub-county, Hoima district in Western Uganda. (Figure 1). It is a small fishing village and lies on the south-eastern shore of Lake Albert which lies along the border of Uganda with the Democratic Republic of Congo (DRC). Fishing is the major source of livelihood for men and salt trade that has lasted centuries is a source of livelihood for the community members especially the women. The people of Kibiro include those that crossed over from the DRC and the indigenous 'Bagungu people' who are subjects to the Bunyoro Kitara Kingdom.

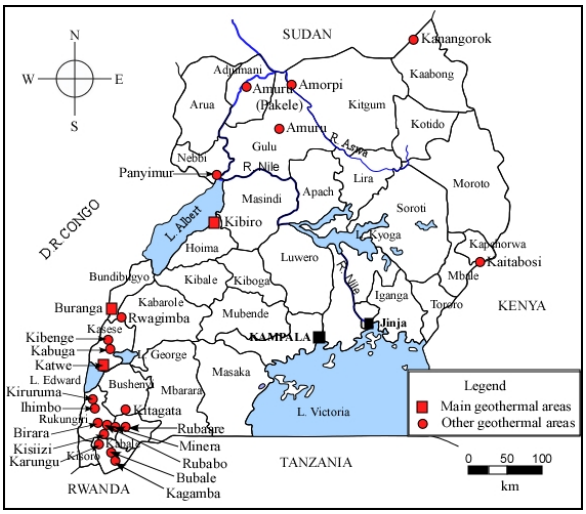


Figure 1: Showing the geothermal areas including Kibiro

The Bagungu culture and spirituality is underpinned by close connection with nature and their ecological way of governing their ancestral territory. Christie Kiefer (2007) describes culture as "a complex integrated system of thought and behavior shared by members of a group-a system whose whole pattern allows us to understand the meanings that people attach to specific facts and observations". Culture shapes identities and fosters notions of community, and it shapes how individuals and groups relate to each other, how meaning is created, and how power is defined. Traditionally among the Bagungu people, clan leaders locally known as 'Balamansi' which can be translated as 'people who pray for the earth' are the spiritual leaders and custodians of the sacred sites to which the Kibiro hot springs belongs. With this strong cultural attachment, the locals with their clan leaders needed to trust that with the geothermal exploration, nothing detrimental would happen to their sacred land and all this was handled and negotiated through continuous

community engagements. Kibiro has a number of surface geothermal features such as clusters of hot springs, bedrock alteration, and a single weak fumarole. This coupled with favourable geological setups as shown by previous geological studies, has been ranked highly for further subsurface geothermal exploration. After a series of engagements, detailed geothermal investigation works in Kibiro were initiated in 1993 and over the years the Geothermal Resources Department has moved forward with these investigations up to the most recent Temperature Gradient Holes drilling activity without any resistance from the community members due to the good working relationship built and is attributed to proper community engagement. In our approach, both consultation and participation have been emphasized where in participation, the community members influenced decisions which affect them whereas under consultation, the members had little control on the decisions but the bottom line is that their views were always taken into consideration.

This paper elaborates why and how community engagement was carried out, challenges that were encountered over the years during the community engagements and the gaps in the strategies that we have used over the years.

2. REASONS FOR COMMUNITY ENGAGEMENT IN KIBIRO.

There are a number of reasons why Community Engagements were carried out in the Kibiro community and these include.

i. To most of the community members in the Kibiro, geothermal energy is a new concept and therefore before doing anything in that area, the revelation of what geothermal is and how it can be used had to be done in a way that is easy to understand by the community members. Not far away from Kibiro village lies other fishing villages in which oil and gas activities have been going on and there needed to be clarification on the difference between these two energy sources. However, after the members become aware of the achievements from geothermal energy, they tend to become over expectant which is a very bad outcome of the awareness carried out. These expectations then have to be managed through further community engagements.

ii. The locals have been in this place longer than the project proponents and it would be a shame not to draw on local expertise which could be input into whatever the proponent's plans are in order to make a good project even better. In addition to the knowledge the locals could avail, they themselves are in position to state their reservations and concerns about the project and this avails the proponents a chance to put to rest some of the issues raised and/or incorporate them moving forward so as to keep harmony.

iii. From the understanding of potential persons to be affected by a certain decision or activity there is a need to give them a chance to influence that decision. This stems from the democratic and ethical point of views that the individual has "the right to be informed, to be consulted and to express his or her views on matters which affect them personally" (Petts, 2003). Since these envisioned geothermal activities have the ability to affect the environment in which these individuals reside, then it would be undemocratic and unethical not to avail them with such an opportunity to have a say.

iv. Community engagement has for long been incorporated in all stages of project implementation and now recognized among the international best practices in implementation of geothermal projects all over the world and this was not to be an exception.

3. TOOLS FOR COMMUNITY ENGAGEMENT

i. Interactive participation

Meetings are organized with support from Local Government and Community leaders. In these interactive meetings, the information flow is two way such that we not only give information about our projects but we get to listen in on their views and concerns about the project as well. (Figure 2). A feedback is then communicated to the leader through a report or organising a follow up meeting.



Figure 2: Community members in attendance of a community meeting.

ii. Use of visual aids

The concept of geothermal energy being new to the local communities, the use of visual aids was one of the ways that eased the understanding. In addition, visual aids arouse interest of the local community members and help in explaining of somewhat hard concepts to ease learning/understanding. Aids such as short videos played on television sets, illustration charts and images showing all things related to geothermal energy went a long way in explaining the otherwise hard concepts.

iii. Delivering the information in the local dialects.

The locals in Kibiro are 'Bagungu' and 'Banyoro' and speak 'rugungu'and 'runyoro' respectively and the literacy levels in this village are very low meaning that delivering whatever message to these people, one needs to use the local language. In order to overcome this, the Geothermal Resources department recruits personnel that are well learned and informed about geothermal energy and are able to speak the local dialect and this has built a strong connection with the community members because they feel the message is being delivered by one of their own.

v. Engagements with Bunyoro Kitara Kingdom.

As earlier stated, the community members are subjects to Bunyoro Kitara Kingdom. In a bid to gain the local's trust, we often included kingdom members to the teams that will be engaging with the locals. This as anticipated has increased the locals trust in the various project activities and had an immediate positive effect on the number of local community members attending the consultation meetings (Figure 3).



Figure 3: Participants of a meeting with Bunyoro Kitara Kingdom.

vi. Use of opinion leaders

Well known individuals that have the ability to influence the rest of the community members' opinions were used to rally support for the project. For example, Dr. F.A Kabagambe Kaliisa, the former Permanent Secretary of the Ministry of Energy and Mineral Development in Uganda and happens to have his ancestral roots in Kibiro played a key role in obtaining the social license to operate.

vii. Field visit to already established Geothermal energy projects

The other strategy implemented was to take selected people from the Kibiro local community and other stakeholders to Olkaria geothermal project in Kenya (Figure 4). They were introduced to direct and indirect uses of geothermal resources when harnessed. This on top of other strategies implemented rallied up a lot of support to project activities.



Figure 4: Showing local community members at one of the power plants in Kenya

4. CHALLENGES FACED AND REMEDIAL MEASURES

i. Time

The Kibiro community members are either fishermen or salt miners and these activities take up most of their day time and therefore gathering them for community engagement is usually seen as a disruption unless the proponent is willing to compensate them for their time spent in such meetings. This results into low turn ups for most of the meetings which later translates to less feedback.

In trying to solve this issue, incentives are put in place for participants for example transport refunds, beverages and eats. In addition, the engagements are mostly convened in the afternoon hours which are less busy for the fishermen.

ii. Literacy and language

Kibiro village has only one school which is a government owned primary school for the people that cannot afford private schools elsewhere but even with this government school, the literacy levels are very low. With low literacy levels, there is a challenge of communication, for example that Information, Education and Communication (IEC) materials will not be of help unless the materials are translated to their local languages.

To remedy this situation, illustrations and other visual aids are used during presentations that are made in the local dialects for the members to fully understand.

iii. Domination of participation

The meetings held often lead to selective and biased outcomes as they tend to be dominated by a few people that want to talk all the time leaving no chance for the rest of the target group.

In order to have a levelled platform for everyone to deliver their input, we have adopted different ways of managing meetings such as timing each person giving their views and offering one on one interviews in addition to the mass gatherings.

iv. Gender Insensitivity

There is a lower status accorded to women in decision-making and opinion sharing among these indigenous communities and this is a constraint to effective community engagement. Most women fear or are not allowed to speak in these gatherings in the presence of the men and this has kept some of the real issues of concern not coming out clearly considering that they are the main dealers in salt mining.

In the future we plan to hold separate engagements for the male and female residents so as to separately understand their concerns. In addition to this, one on one engagements will continue to be done.

CONCLUSION

In Uganda, a fairly good job in community engagement has been done since the start of the detailed geothermal exploration in 1993. This success can be seen through the support offered by the community members to the latest development of Thermal Gradient Hole (TGH) drilling. The engagements have been continuous with communication, diplomacy, patience and flexibility being applied. However, it is only the starting point since more exploration activities are expected such as the drilling of deep exploration wells. The communities need to be fully aware and in support of the project activities otherwise the communities' lack of trust and confidence in the process will undermine the project.

REFERENCES

Center for Disease Control and Prevention (CDC). (June 2011). *Principles of community engagement. Second edition.* http://www.atsdr.cdc.gov/communityengagement/pdf/PCE_Report_508_FINAL.pdf

Butterfoss, F. D. & Kegler, M. (2002). Toward a comprehensive understanding of community coalitions: Moving from practice to theory. In *Emerging theories of health promotion practice and research*. R. DiClemente, R. Crosby, & M. Kegler (Eds.) pp.157-193). Jossey-Bass. San Francisco, CA.Center for Disease Control and Prevention (CDC). (1997). *Community engagement: Definitions and organizing concepts from the literature.* http://www.cdc.gov/phppo/pce/

Christens, B. D., & Zeldin, S. (2016). Encyclopedia of Adolescence. *Encyclopedia of Adolescence*. https://doi.org/10.1007/978-3-319-32132-5

Walker, M. A., & Ph, D. (2011). C o m m u n i t y E n g a g e m e n t.

Fajri, H., Nurhabibi, P., Saputra, B., & Yuanjaya, P. (2020). Community Engagement in a Social Movement: A Case of Geothermal Energy Development in Gunung Talang - Bukit Kili area. *IOP Conference Series: Earth and Environmental Science*, *448*(1). https://doi.org/10.1088/1755-1315/448/1/012020

Wilson, H. C. (2000). Stop propagating disaster myths. *Disaster Prevention and Management: An International Journal*, *9*(1), 242–257. https://doi.org/10.1108/dpm.2000.07309aaa.001

Committee, C. and T. S. A. (CTSA) C. C. E. K. F. (2011). Principles of Community Engagement. *NIH Publication No. 11-7782*, http: //www.cdc.gov/ phppo/pce/. https://doi.org/10.1016/j.jenvman.2015.04.014

Waste Workgroup, I. (n.d.). Community Engagement Strategy Issues to Consider When Planning and Designing Community Engagement Approaches for Tribal Integrated Waste Management Programs Prepared by the Waste Programs Sub-workgroup for Community Engagement as Requested by the Multi-Ag.