

The impact of the abandoned and unrehabilitated open pit mines in Namibia: A sociological perspective

P. Masake and H. Musiyarira

Namibia University of Science and Technology, Namibia

INTRODUCTION

The mining industry is indispensable and has contributed immensely to the development of many countries.¹ However, there are concerns that arise in relation to the mining methods and post-mining effects. There are different methods of mining, such as surface, underground, in-situ, and placer.² The study focusses on the surface mining methods with specific emphasis on the impact of abandoned and unrehabilitated open-pit mines on the communities who live alongside the open pit mines.

In Southern Africa, the extractive industry, including open-pit mining, has a history that dates to the 10th century – the Iron/Stone Age.³ Literature, from the Namibian context, reveals that there are over 267 abandoned and unrehabilitated open-pit mines stretching over thousands of tracts of land.⁴ Theoretically, there are various contributing factors to abandonment and non-rehabilitation of open-pit mines. These factors include unplanned closure of mining entities, war and conflict, lack of accountability, and weak post-mining regulations,⁵ to mention a few.

The main objective of the paper was to investigate the impact of abandoned and unrehabilitated open-pit mines on the structure, development and function of the societies who live alongside these abandoned and unrehabilitated open-pit mines.

The study assumes that the legislation on mining in Namibia is inadequate in regulating abandonment and failure to rehabilitate the open-pit mines. Therefore, the study postulates that the negative and irreversible impact of the abandoned and unrehabilitated open-pit mines transcends beyond the environmental and health issues. It crosscuts into the sociological aspects of the inhabitants who reside in proximity to these abandoned and unrehabilitated open-pit mines. The sociological perspective presupposes several things; these includes but are not limited to the way a society lives, subscription to cultural practices and norms, environment, practice of indigenous knowledge and health – typically, how the society interacts, develops, its structure, and function.⁶

Key words: Abandoned and unrehabilitated, open-pit mines, sociology, extractive industry

¹ Limpitlaw, D. (2015). Maximising Positive Impacts of Mining Projects: Stakeholders and Partnerships. *South African Institute of International Affairs*. URL: <https://www.jstor.org/stable/resrep28334>

² Abzalov, M. (2016). *Applied Mining Geology*. Springer, Cham. https://doi.org/10.1007/978-3-319-39264-6_2

³ Miller, D., Desai, J., & Lee-Thorp, N. (2000). Indigenous Gold Mining in Southern Africa: A Review. *Goodwin Series*, 8, 91–99. <https://doi.org/10.2307/3858050>

⁴ Salom, A.T., & Kivinen, S. (2020). Closed and abandoned mines in Namibia: a critical review of environmental impacts and constraints to rehabilitation. *South African Geographical Journal*, 102(3), 389–405, DOI: 10.1080/03736245.2019.1698450

⁵ Salom, A.T., & Kivinen, S. (2020). Closed and abandoned mines in Namibia: a critical review of environmental impacts and constraints to rehabilitation. *South African Geographical Journal*, 102(3), 389–405, DOI: 10.1080/03736245.2019.1698450

⁶ Bates, R.A. (2015). The Sociological Perspective Revisited. *Journal of Public and Professional Sociology*, 7(1), 1–9.

METHODOLOGY

In terms of methodology, the paper adopted a qualitative research approach.⁷ A qualitative research approach is most suitable for the study since the objective of the study is to investigate the impact of abandoned and unrehabilitated open pit mines on the communities.⁸ To achieve the objective of the study, in-depth information and detailed experiences from the community members who live alongside the abandoned and unrehabilitated open pit mines was necessary.

There are few studies from the Namibian context on the subject. Thus, an exploratory technique was adopted as it is the most suited in cases where there is not enough research available or where there is lack of literature.⁹ The study setting included selected settings or places which were in the proximity of open pit mines, namely, in Erongo, Oshikoto, and Karas regions respectively.

The population of the study includes people who were living in the villages or localities that were situated near an open pit mine that was abandoned and unrehabilitated for over five years. Thus, a sample of 30 participants was projected – comprising ten participants per region. To obtain detailed information and experiences, the study utilised a semi-structured interview to collect the data.¹⁰

The semi-structured interviews¹¹ were executed through face-to-face interviews. This interview approach allows the researcher to observe the participant during the interview.¹² However, due to Covid-19 regulations some of the interviews were held by telephone, in order to comply with these regulations. It is a fact that not all of the participants were well versed in English; thus the use of an interpreter, where necessary, was co-opted for purposes of interpretation and translation from English to local languages and vice versa. To analyse the collected data the study applied the content analysis – reducing the data into themes using the selective thematic coding.¹³

SUMMARY OF RESULTS

The findings/outcomes of the study, among others, revealed the inadequacy of the regulations that deal with post-mining activities; the lack of social impact assessment at the level of post-project phase; the abandoned and unrehabilitated open-pit mines in Namibia contribute to the removal from indigenous lands and relocation of inhabitants at the expense of such inhabitants' tradition, rituals, ceremonies, and cultural practices; it deprives the inhabitants the full indigenous utilisation of lands; it contributes to society's structural demise and lack of social cohesion; and it irreversibly alters the methods of livelihood of the relocated inhabitants.

The paper recommends that mining companies and governments should consider trade-off by means of converting open pits into, among others, recreation centres, aquaculture practices, learning factories for students, research sites, and other community projects that may add value and uplift the societies and individuals who live alongside the abandoned and unrehabilitated open-pit mines; and effective review of legislation to provide for mechanisms that regulate post-mining project phases, i.e., social impact analysis post project phase.

⁷ Busetto, L., Wick, W., & Gumbinger, C. (2020). How to use and assess qualitative research methods. *Neurological Research Practice*, 2(14), 1-10. <https://doi.org/10.1186/s42466-020-00059-z>

⁸ Noble, H., & Smith, J. (2015). Issues of validity and reliability in qualitative research. *Evidence Based Nursing*, 18(2) 34-35.

⁹ Thomas, O.O., & Lawal, O.R. (2020). Exploratory Research Design in Management Sciences: An X-Ray of Literature. *Economics and Applied Informatics*, 2, 79-84.

¹⁰ DeJonckheere, M., & Vaughn, L.M. (2019). Semi structured interviewing in primary care research: a balance of relationship and rigour. *Family Medicine Community Health*, 7, 1-8. doi:10.1136/fmch-2018-000057

¹¹ Evangelinou-Yiannakis, A. (2017). A reflection on the methodology used for a qualitative longitudinal study. *Issues in Educational Research*, 27(2), 269-284

¹² Evangelinou-Yiannakis, A. (2017). A reflection on the methodology used for a qualitative longitudinal study. *Issues in Educational Research*, 27(2), 269-284

¹³ DeJonckheere, M., & Vaughn, L.M. (2019). Semi structured interviewing in primary care research: a balance of relationship and rigour. *Family Medicine Community Health*, 7, 1-8. doi:10.1136/fmch-2018-000057



Masake Pilisano Harris

Senior Lecturer
Namibia University of Science and Technology

An international law scholar with interest in legal, forensic, security, sociology, and international relations studies. Enrolled for the second doctoral degree: Doctor of Philosophy in Criminal Justice – Candidate, UNISA, South Africa. Holds the LLD – public law: international criminal law (Stellenbosch University), LLM (Stellenbosch University), Masters in Policing Practice (Southern Business School), LLB and B-Juris (UNAM), a Senior Lecturer in the Department of Social Sciences and served as Acting Dean for the Faculty of Human Sciences at the Namibia University of Science and Technology, Namibia. A former Police Officer with the rank of Detective Chief Inspector – Namibian Police Force. Guest lecturer at Interpol school of Excellence in Harare, Zimbabwe. Guest lecturer Police College – Namibia. Serving, – community engagement, with the Namibia Red Cross Society a non-profit humanitarian-based institution. Further, serving as a Listed Professional Investigator for the International Criminal Court (ICC). Admitted Legal Practitioner of High Court of Namibia. The co-founder of the Unam Law Review and serving as Head Articles Editor till 2013. A co-author of various articles and book chapters. Further, co-authored a book “The Law of Pre-Trial Criminal Procedure in Namibia”. Currently, working on two book projects, re: Book 1 – *Global Pandemics and the Challenge of Peace and Security in Africa: A focus on Covid-19 (Legal and Security Policy)*, Lexington Publishers. Book 2 – *Global Pandemics and the Challenge of Peace and Security in Africa: A focus on Covid-19 (Social and Ethical issues)*, Lexington Publishers.

