CHAPTER FIVE

CONCLUSION

5.1. Introduction

It is intuitively and naturally pleasing to come to an end of a research project, but it is more pleasing and relieving to come to an end of a research project with convincing and satisfying research findings, which provide adequate answers to research questions raised in the project. This chapter gives a summary of the overall picture of the study. In its quest to achieve this goal, it deals specifically with achievement of the research objectives, challenges established, summary of research findings and possible benefits, possible future research emanating from the study and recommendations given for future improvement.

5.2. Achievement of research objectives

This study aimed at establishing possible barriers inhibiting the construction of low income or affordable housing on former mining lands closer to Johannesburg CBD, and according to the research findings as presented in chapter four, this noble goal was achieved. Through surveys and document analysis, answers were able to be provided to research questions raised in chapter one. The research findings were also able to support the hypothesis (assumptions) which I initially had, which said there were possible barriers available which hamper attempts being made to access former mining land, specifically for the construction of affordable housing. I was also able to gather enough literature readings relevant to the research topic of this study. In short, the study was able
to address the main research problem that I had, which was the main reason for undertaking a study of this nature in the first place.

5.3. **Summary of research findings and possible benefits**

The research findings of this study indicate that the following are actually barriers inhibiting the accessibility of former mining or contaminated land closer to Johannesburg CBD, for the purpose of constructing affordable housing for those previously marginalized citizens of Soweto and neighbouring communities:

- **Prices of land are too high**: The high cost of land in South Africa, and Johannesburg in particular, is a serious barrier to land accessibility.

- **Inadequate funding for housing subsidies and remediation processes of contaminated land**: More funding is needed in order to assist landowners with remediation processes, and housing beneficiaries with subsidies in order to intensify and enhance land accessibility and affordability, respectively.

- **People’s perception on radon and mine dust**: Although radon and mine are serious health-risks if precautions are not taken, it is the wrong and negative perception which people have about them, which seem to have an influence on people’s choice of housing on former mining lands.

- **Policies’ strict and uncompromising stance on the utilization of contaminated land for housing construction**: The policies, as discussed in chapter three, make it very difficult for one to access contaminated land, especially for housing development.
These research findings will benefit, amongst others, the potential beneficiaries of housing constructed on former mining land, the government, developers, owners of former mining lands and the NNR. The potential housing beneficiaries will be able to get a clear picture of the dangers and the health risks which come with residence on contaminated land. These findings will assist the government to understand the magnitude of funding it has to offer in order to enhance the accessibility of former mining land for housing construction. Owners of former mining lands, the NNR and developers will also benefit from these findings in that they will also get to know people’s interest for housing on contaminated land. In fact, the public at large will, one way or the other, benefit from these research findings.

5.4. **Challenges established from the study**

The research findings obtained from this study are actually challenges on their own, not only to the government and those willing to reside on contaminated lands, but to all other interested formations as mentioned in the previous paragraph. The negative and ill-informed perception, rather than presence of radon and mine dust in former mining lands –where, according to the Benefit-Cost Analysis results, people are interested in staying– should be a serious challenge to the government, owners of former mining lands, developers and the NNR. The government needs to channel more funding towards the rehabilitation processes of these lands. The NNR, on the other hand, should contribute in enhancing this process, and be more understanding to allow housing projects to proceed where cancer risks have been fairly minimized.
Exorbitant prices of land in general and former mining land closer to the CBD in particular, should also be a challenge to the government and landowners. Urgent amicable and workable solutions need to be found for the sake of delivering affordable houses closer to the CBD. The research project was funded by IPROP, PDNA and the NNR, and funding projects of this nature should be a challenge to the government, in particular municipalities. Usually it is the government in general, and municipalities in particular, which benefit immensely form research projects of this nature.

5.5. **Future Research**

This research project succeeded in exposing the actual barriers inhibiting access to former mining lands for the sole reason of constructing affordable housing. Future research projects should look, amongst others, into:

- challenges or difficulties involved in remediation processes of contaminated lands
- possible ways of enhancing remediation processes of contaminated land
- assessing the impact or effects of radon or mine dust on people staying closer to contaminated lands
- and the actual reasons behind exorbitant prices of former mining lands

5.6. **Recommendations**

The conclusion that I draw from this research project, as informed by the findings, is that there are actually barriers available, some of which are not only hindering accessibility to former mining lands for the purpose of constructing affordable housing, but are a serious threat to residents’ health as well. It is imperative for the government in general, and the
National Housing Department in particular, together with all interested parties, to ensure that people’s perceptions, policies, land pricing and ownership are addressed as a matter of urgency. Realising and noting that the Housing Department is still faced with a huge housing backlog to deal with, and the serious need to construct affordable houses for the previously marginalized citizens closer to the CBD, with former mining land being the well-located and closest land for this purpose; I therefore give the following recommendations for policy development:

- **Land policy issues:**
  - the government should provide funding for remediation processes of former mining land
  - the government should also put attractive incentives for owners of former mining lands to speed up land release
  - the government should also regulate land pricing, ensuring fairness to both the seller and the buyer
  - municipalities need to take lead in land acquisition processes since provinces do not have a mandate to do so

- **Housing policy issues**
  - the government needs to channel more funding on affordable housing closer to the CBD
- the government also needs to mobilize banking institutions, NGOs and other interested formations to provide funding for housing subsidies, in order to enhance affordability

- the government should ensure that future affordable housing developments are no longer located on the outskirts far away from city life

the government should also provide funding for housing research projects

● Policy issues

- the NNR should, from time to time, study emerging research findings on housing on contaminated lands, in order to make an assessment for any need of policy change or law amendments

- It should encourage more research projects on contaminated lands

- The NNR should also be more flexible and understanding in its approval considerations for housing on contaminated lands, especially where there is a proof of minimized health risks and enormous benefits for potential residents.

- The Environment Conservation Act also needs to be re-visited, especially with the pressing need for land closer to the CBDs.

● Owners of former mining lands

- owners of former mining lands should collaborate with the NNR and the government in their fight for the removal of radioactive material such as radon from contaminated lands
- they should mobilize funding from the government and the international funding agencies for the removal and cleaning of mining dumps.