

**EVALUATION OF PUBLIC PARTICIPATION PROCESS IN ENVIRONMENTAL
IMPACT ASSESSMENTS OF SELECTED DEVELOPMENT PROJECTS IN THE
VHEMBE DISTRICT OF SOUTH AFRICA**

By

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UNIVERSITY OF VENDA

2024

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IMPACT ASSESSMENTS OF SELECTED DEVELOPMENT PROJECTS IN THE
VHEMBE DISTRICT OF SOUTH AFRICA

by

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Submitted in fulfilment of the requirements of the degree of PhDGEO in the Department
of Geography and Environmental Sciences; Faculty of Science, Engineering and
Agriculture

At the

UNIVERSITY OF VENDA

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2024

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ACKNOWLEDGEMENTS

First and foremost, my sincere honour and gratitude to my promoters Professor N.S. Nethengwe, and Doctor N.V. Mudau who supported and motivated me throughout this research study. I am indebted to them for the way they propelled the research in the most sensible direction. They have been meticulous with the finest details and imposed meaning in the research. I owe the success of this research to them.

I would also like to thank the University of Venda Higher Degrees Committee for helping me financially and with the direction towards the success of my research. Without them, it would not have been possible to achieve my goal.

DECLARATION

I, Tendani Amos Magosha, Student No: 8900993 hereby declare that this thesis for the PhDGEO degree at the University of Venda, hereby submitted by me has not been previously submitted for a degree at this or other university, and that it is my own work in design and execution and that all reference material contained herein has been duly acknowledged.

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ABSTRACT

Ensuring a pragmatic balance between environmental imperatives and community development within Vhembe district in South Africa has been a growing concern since communities' right to an environment that sustains their wellbeing is being infringed due to ecologically unsustainable development activities carried out in the area. In the wake of this, this research study evaluated the extent to which Environmental Impact Assessments (EIAs) of development projects in Vhembe district complied with public participation as stipulated by EIA policy guidelines and goals provided within EIA legislation in South Africa. The objectives of the study were: to evaluate the level of awareness of guidelines for public participation by the community; to assess the extent to which Environmental Assessment Practitioners (EAPs) have complied with guidelines for public participation in EIA legislations; and to assess public participation practice by EAPs in relation to community expectations in Vhembe district. This study relied mainly on qualitative method of data collection and analysis supplemented by quantitative method. In order to achieve the main aim of this research, a case study was used. Simple random sampling method was done on development projects that required EIA due to their potential to cause irreversible harm to the Earth's systems thus undermine sustainable development. These development projects were sampled from the four local municipalities within Vhembe district. Systematic sampling was used to identify respondents to whom questionnaires were administered. Interviews were conducted with twelve key informants and also with four EAPs who conducted EIAs for the sampled development projects. The reviewed documents for the development projects included Basic Assessment Reports (BARs); and Scoping and Environmental Impact Report (S&EIR). For data analysis, Statistical Packages for the Social Sciences (SPSS) was used. The results revealed that community members are generally not conversant with EIA guidelines for public participation. Furthermore, it was revealed that EAPs only complied with some of the minimum requirements of EIA procedure. Also notable is that EAPs displayed lack of requisite expertise on how to conduct public participation and as a result infringed on the public's right to access information by making projects' information only available in libraries and websites. Key recommendation is that public participation should be made effective and participative by ensuring that community members are capacitated accordingly. As a key contribution to the body of knowledge, this study developed a context-based adaptive strategic framework for ensuring effective and participative public participation practice based on local realities thus to ensure sustainable development.

Key words: Public participation, Environmental Impact Assessment, Environmental Assessment Practitioners, Environmental legislation, Sustainable development.

ABBREVIATIONS AND ACRONYMS

BA	Basic Assessment
BAR	Basic Assessment Report
BID	Background Information Document
CA	Competent Authority
CBO	Community-based Organisation
DEA	Department of Environmental Affairs
DEAT	Department of Environmental Affairs and Tourism
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EAPASA	Environmental Assessment Practitioners' Association of South Africa
EAR	Environmental Audit Report
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
EMS	Environmental Management System
I&AP	Interested and Affected Parties
IEM	Integral Environmental Management
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NGO	Non-governmental Organisation
PP	Public Participation
PPP	Public Participation Process
RI&AP	Registered Interested and Affected Parties
S&EIR	Scoping and Environmental Impact Report
SPSS	Statistical Packages for the Social Sciences
UNIVEN	University of Venda

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CHAPTER 1: INTRODUCTION

1.1 Background to the study

Quite recently, the issue pertaining to the use and over-use of environmental resources to sustain human population growth, which in the process leads to environmental degradation and thereby eventually threatens human existence has become an issue of global concern. Various environmental conferences and workshops have been conducted across various levels of governance so as to ensure that developments are considerate of the well-being of the environment (Maphanga, *et al.* 2022). In the wake of the fact that this has now become an issue of global concern, efforts are therefore made to ensure that major developmental projects are subjected to applicable environmental legislations. In South Africa, the constitution rules supreme when it comes to environmental matters and it is from this act that other environmental legislations are promulgated.

In the last few decades, “ensuring a balance between economic growth and community development has been a growing concern for both governmental and non-governmental agencies” (Pimoljinda & Siriprasertchok, 2017:331). However, in its quest to achieve goals and objectives of sustainable development, South Africa has in the process to also deal with social injustices of the past. As envisaged in the Constitution, South Africa came up with economic development strategies and policies which imperatively require amicable and coherent balance between the emancipation of the destitute through economic development and nature conservation. In essence, this implies that economic projects and activities geared at economic growth and social development of the underprivileged masses of the majority of South Africans will have to be encouraged at all costs. This would have to be achieved either through rigorously engaging government agencies and/or private sectors. However, this would have to be achieved without undermining the issue of sustainability.

The issue of enhancing economic development for the emancipation of the destitute cannot be necessarily easy. This is so because such endeavours cannot be liberal but should happen within the context of the provisions of the law and as such should be embrasive of sustainable development goals. Sustainable development, as defined by Murombo, (2008:1) involves “the integration of social, economic and environmental factors into planning, implementation and decision-making so as to ensure that development serves present and future generations.” This

concept of sustainable development is enshrined within the supreme law of the country wherein the Bill of Rights provides that (Republic of South Africa, 1996: 8-9):

“Everyone has the right:

- a) to an environment that is not harmful to their health and well-being; and
- b) to have the environment protected ... through reasonable legislative and other measures that:
 - i) prevent pollution and ecological degradation
 - ii) promote conservation; and
 - iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.”

Basically, “the above stipulations by the supreme law of our country (Republic of South Africa) require that the organs of state and that of private entities to ensure that negative environmental impacts are prevented and at the same time promote environmental conservation so as to secure ecologically sustainable development (DEAT, 2007:2).” To comply with these obligations, organs of the state must see to it that Environmental Management Systems (EMS) are adequately and effectively implemented. Consequently, the government has since 1996 embarked on an active environmental legislative programme to fulfil these constitutional duties. The National Parliament has in this regard promulgated an environmental framework statute: the National Environmental Management Act (NEMA); Act 107 of 1998. NEMA has been further supported by many specialised pieces of environmental legislation as well as Environmental Impact Assessment Regulations.

Stipulated within NEMA is the aspect of “Environmental Impact Assessment (EIA), which is a systematic process of identifying, predicting and evaluating potential environmental impacts of proposed development project on the environment” (DEAT, 2002: 6). “This study is conducted before project implementation to provide information to decision-makers on the consequences of the proposed action so that environmentally sound and sustainable development can be promoted through identification of appropriate mitigation measures” (Terri, 2018). In the wake of this assertion, it therefore follows that for an EIA system to achieve its goals, a regulatory framework that is comprised of regulations on how EIA should be conducted must be developed – hence EIA regulations as stipulated within South African environmental legislation.

As for the South African context, Environmental Impact Assessment regulations stipulate all necessary procedures for handling applications for activities requiring authorisation by the competent authority. These regulations also include a detailed process flow chart in which basic assessment, scoping procedure and environmental impact assessments (EIA) as well as appeal procedures are fully outlined (DEA, 2017). In the process flow chart, the process of public participation occupies very strategic and crucial positions to ensure objective and rational decision-making about authorisation or rejection of applications. Basically, public participation provides for the rights for those affected by the development opportunity to express their views as they will be consulted and informed (Petts, 2003) and “since environmental decisions literally affect everybody’s quality of life, it would thus be unethical not to provide the public with opportunities to participate in EIA” (Hartley & Wood, 2005: 333). In this regard, public participation in EIA enables those who are interested or affected by the development project to contribute towards decision-making.

Furthermore, public participation is provided for within the environmental legislation in that “the participation of all interested and affected parties in environmental issues must be promoted and that all people must be given opportunity to develop skills and capacity which in turn will help them to achieve equitable and effective participation” (DEA, 2017: 6). Accordingly, public participation as a process is a very crucial and necessary component of the EIA process and as such contributions by various stakeholders during this process should be interacted with, valued and considered as this is a legislative imperative. As a result, this study seeks to evaluate the extent to which Environmental Impact Assessments of development projects in Vhembe district comply with public participation as stipulated by EIA policy guidelines and goals provided within EIA legislation in South Africa.

In that, the process of public participation involves the issue of soliciting viewpoints, inputs and suggestions from interested and affected parties (I&APs), one would consider this procedure to be of crucial importance since it is likely to achieve a high level of objectivity. As pointed out by Glucker, *et al.* (2013: 109), “there seems to be a broad consensus amongst scholars that public participation is key to effective EIA. This is likely to be so because the parties involved may not necessarily be directly related to the applicant or environmental assessment practitioner (EAP) who is responsible to conduct public participation as part of EIA process”. However, as pointed out by Murombo (2008:4), “South Africa’s diversity could present a different context in that the level of public participation is not only shaped by the legal and institutional framework, but also by other variables like the socio-economic status of the interested and affected parties.”

The assertions above do not necessarily imply that the process of public participation is immune of manipulation by EAPs. EAPs' objectivity in the handling of public participation process and the entire EIA procedure may be questionable since they are preparing the EIA reports for remuneration by the applicants/developers to whom they are accountable. Put rather differently, EAPs may not expect to be remunerated for unsuccessful applications for which they have prepared environmental impact reports (EIR). For instance, if the authorisation of the application may be jeopardised by the results of the process of public participation, moral duties of fairness, honesty and objectivity by the EAP are likely to be overridden to ensure the success of the application, thus compromising one of the objectives of EIA – sustainable development.

“Public participation,” as perceived by Mauerhofer (2016: 478), “is a disappointing feature of EIA due to the fact that it has many shortcomings and crucial limitations.” This research study has also found that EAPs are not comfortable in conducting this process during EIA procedure hence some of them insist that it be scrapped. In essence, EAPs generally conduct public participation process for compliance. Even though there is a standard framework indicating how EIA should be conducted, the same has not been consistently and effectively conducted by EAPs.

1.2 Problem statement

“Public participation is considered a distinguished feature of Environmental Impact Assessment (EIA) and as such, there is widespread consensus that this process is also key to effective environmental assessment” (Glucker, *et al.*, 2013: 109). However, the outcomes of public participation process do vary as this involves the dynamism of the I&APs, which can be influenced by its composition and other related factors. What then can also compound the whole process of public participation is the lack of standard criteria for what constitutes good practice in EIA. As pointed out by Rossouw, *et al.* (2003), concerns have been raised regarding standard format of what constitutes good practice in EIA and as a result I&APs become confused because each EIA process depends on the consultant's interpretation of the applicable environmental regulations. Whilst it is acknowledged that EIA is a process to enhance sustainable development, thereby ensuring that only approved projects are carried out, quite concerning, however, is the inconsistency and administrative flaws regarding the way in which EAPs and other stakeholders carry out public participation process (Rossouw, *et al.*, 2003).

“At the legal level” as Murombo (2008:1) points out, “the country has enacted an array of impressive environmental legislation not only aimed at conserving natural resources, but also

more importantly targeting sustainable use of the few resources available to the ever-increasing population.” However, despite the gravity of this assertion, suspiciously questionable, unlawful and ecologically unsustainable economic activities and projects are still being carried out within Vhembe district, thus resulting in environmentally hazardous situations undermining the rights of the citizens for an environment that is harmless to their health and welfare. General observations made in the study area are that developments of ecologically unsustainable projects are continuing unabated. To cite an example, in certain areas of the Vhembe district, wetlands are giving way for the development of shopping malls and other major projects. Again, the mining activity by CoalofAfrica near Mapungubwe Heritage site in Limpopo Province is a cause of national concern. At Mudimeli village just outside Louis Trichardt, the community is now divided on the issue of mining activity within its precinct and this has come about long after the community was ‘consulted’ about the proposed activity – a superficial public participation process, of course.

Given the situation and the context in which EIA and public participation are carried out in Vhembe district, thereby leading to glaringly in-compliant development activities being carried out, the right of the local communities to have the environment that can be sustainable in terms of providing for current and future generations as enshrined in our constitution, is hereby infringed. Quite concerning, however, is that despite the impressive environmental legislations in South Africa, much discretion is left to environmental consultants regarding the manner in which public participation should be conducted (Murombo, 2008). With the environmental consultants not the only stakeholders of this process, local community members also have their role to play. However, their lack of knowledge and skills limits them to have meaningful and deliberative contributions and participation in the EIA procedure. Usually this is due to lack of standardised approaches and directives for training and capacity building for the participants, particularly the marginalised members of the general public. Accordingly, Roos (2020) complains that public participation is rendered ineffective due to the poor and low level of contribution by the public. Furthermore, considering the evaluation frameworks for public participation reviewed, indications are that many public participation engagements only last the duration of the project construction and as such are short-term. There is a need to find effective approaches of monitoring compliance with EMPr specifications even beyond the project implementation phase through effective public participation.

However, “as perceived by some scholars, public participation is key to effective EIA” (Glucker, *et al.*, 2013:109). Some concede that it has many shortcomings and crucial limitations (Du Pisani and Sandham, 2006) and as such it must be improved (Andre, *et al.*, 2006), redesigned and made

more effective (Du Pisani & Sandham, 2006, and O’Fairchaeallaigh, 2010). Owing to this and other factors, the process has remained out of touch with reality since the current approach to public participation implementation has failed to realise the main objective of this process in practice. Succinctly put, there is no pragmatic procedural framework for the implementation of public participation in EIA compatible to the context presented by areas like Vhembe district. More importantly, the current practice of conducting public participation without considering local contextual factors has been very problematic and undermining of the goals and objectives of the process. This study seeks to develop a context-based adaptive strategic framework for ensuring effective and participative public participation practice based on local realities.

1.3 Research aim and specific objectives

1.3.1 Research aim

The central aim of this study is to evaluate the extent to which Environmental Impact Assessments of selected development projects in Vhembe district comply with public participation process as stipulated by EIA policy guidelines and goals provided within EIA legislation in South Africa.

1.3.2 Specific research objectives

To attain the research aim specified above, the following research objectives are addressed:

- To evaluate the community’s level of awareness of EIA guidelines for public participation;
- To assess the extent to which the EAPs have complied with the guidelines for public participation in EIA legislation in South Africa;
- To assess public participation practice by EAPs in relation to community expectations in Vhembe district
- To develop a strategic framework for ensuring effective public participation process in conducting EIAs for the achievement of sustainable development in Vhembe district.

1.3.3 Research questions

To address the research objectives above, the following research questions were proposed.

- How do communities comprehend public participation guidelines in the EIA process;
- To what extent have the EAPs complied with the guidelines for public participation in EIA legislation in South Africa;

- How effective was public participation in the context of EIA undertaken in the different projects in the study area;
- How effective and efficient may public participation be entrenched in the EIA process.

1.4 Hypothesis

This study is purposed at testing the following hypotheses:

- There is a correlation between communities' level of knowledge and their demographics.
- The EAPs and communities have the same expectations from the public participation process.

1.5 Justification of the study

An evaluation of the process of public participation in the context of sustainable development is necessary particularly if compliance with applicable legislation is a priority. This is imperative because inconsiderate development projects in certain ecologically sensitive areas of the study area cannot help in terms of realising goals and objectives for sustainable development. Environmental issues in South Africa have become more complex and complicated due to varied interests and heterogeneity of communities as well as diverse political interest in the development projects. This has also been exacerbated by the politically charged atmosphere in which the communities are subjected to hereby evidenced by sporadic service delivery protests across the country as well as in the study area. In some instances, communities get alarmed and concerned about ecologically unsustainable development projects mushrooming in their backyards. This raises questions whether public participations were ever conducted in the first place. In the wake of all these, Du Pisani and Sandham (2006:719) concede that “public participation is a disappointing feature of EIAs in South Africa since it is seen as having many shortcomings.” This sentiment has as well been reiterated by Mauerhofer (2016) in asserting that public participation has some crucial limitations.

Du Pisani and Sandham (2006:719) recommend that “public participation be redesigned to make it more effective and truly participative, and that high standards of EIA practice in South Africa are achievable when practitioners are professionally trained, accredited and monitored by a professional body.” For public participation to be effective and thereby achieve its goals and objectives, most efforts have been concentrated on its administrative procedures and less efforts, if any, have been devoted to the eradication of technical flaws and ethical issues involved therein – hence a need for this research study.

- **Justification of study area and the sampled development projects**

This research study explores the current practice of the process of public participation in the context of ecological sustainable development in the Vhembe district. In doing so, technical and ethical assessment is used to expose flaws within the EIA procedure, particularly when it comes to the administration of the public participation process by EAPs. However, with such an impressively enacted environmental legislation in South Africa, it raises concerns why anthropocentric activities which are causing adverse ecological and environmental impacts continue to be given authorisation. Such cases do not in any way form part of the grey area between environmental regulations R.544, R.545 and R.546 as stipulated in the Government Gazette (No. 33306 18 June, 2010). Quite alarming though is that the study area in reference is ecologically diverse in terms of fauna and flora species entailed within the three biomes and yet ecologically unsustainable development projects continue to receive authorisation within this sensitive area. Again, an evaluation of public participation process is conducted on selected development projects in the study area. However, questions can be raised as to whether it is the incompetence of the competent authority in giving authorisation to such suspiciously questionable development activities or misrepresentations of environmental reports by EAPs.

Basically, development projects sampled for this study were based on EIA documents collected from 2010 to 2019 within Vhembe district. The collected EIA documents from which sampling was done ranged from private to public and as such include: road construction, filling stations, farms, resort construction and several other activities within the four local municipalities in the district namely Thulamela, Makhado, Musina and Collins Chabane. Of the several EIA documents presented by Thulamela Local Municipality, one project for UNIVEN access road upgrade was randomly selected. Musina Local Municipality presented a variety of other EIA documents (except road upgrade) and the one for residential development was randomly sampled. At Makhado Local Municipality, road upgrade and residential development EIA documents were put aside since they were already sampled in other areas; and of the EIA documents available, the resort construction development project was sampled for this study. With the already sampled EIA documents in the other municipalities not forming part of the sample, from the rest of the documents presented by Collins Chabane municipality, the farm development project was eventually randomly sampled. Owing to the ecological diversity and sensitivity of the study area, the sampled development

projects were of environmental interest since they are listed within the environmental regulations which require EIA procedure for them to get approval.

This research study focuses on public participation basically because the roles and responsibilities of the EAPs in this process are questionable regarding integrity, objectivity and professional obligations and also because public participation provides an opportunity for interested and affected parties to have a voice about the development projects since they somehow affect their lives and livelihoods as well as the environment on which they depend. Also of concern is that the preparation of an environmental impact report involves steps which require professional competence of the EAP, whereas public participation requires EAPs' specialised skills, expertise, experience and high moral standards in order to make the process effective. However, because this process involves interaction with the community which presents a complex scenario for the EAP due to its heterogeneity in terms of beliefs, political orientation, needs, aspirations, moral inclinations and economic status; the situation is therefore complex and complicated to handle effectively. Obviously this will, in a way, render public participation compromised, and as such may be prone to some sort of crafty interventions by the EAPs, particularly due to lack of effective monitoring and enforcement system by the relevant competent authority.

1.6 Description of the Study area

The area in which the study was conducted is Vhembe district in Limpopo Province of South Africa. "This is one of the five districts of Limpopo Province of South Africa. The area is in the northern part of Limpopo province and shares borders with Zimbabwe in the north, Botswana in the north-west and Mozambique in the east through the Kruger National Park. It includes part of the former Transvaal, and areas that were previously under Venda and Gazankulu Bantustans' administration" (municipalities.co.za). It covers the area that is predominately rural (Figure 1.1).

1.6.1 Socio-economic status of the study area

The population size is about 1,4 million with the unemployment rate at 32,8%, however, youth unemployment rate is at 50,6%. However, in 2019 there were 788 514 people living in poverty across Vhembe district (Figure 1.4). Demographically the area is heterogeneous. This area is predominately black though there are also whites, Asians and coloureds living in this area (localgovernment.co.za/districts). "The dominant languages in the area are Venda and Tsonga and this presents a unique societal dynamism particularly looking into the issue of public

participation. 54% of the population are females and males are underrepresented relative to South African average, assumingly because of migrant labour system. Currently Vhembe district is subdivided into four local municipal areas namely: Makhado, Thulamela, Musina and Collins Chabane. Collins Chabane local municipality was established by the amalgamation of portions of Thulamela and Makhado local municipalities on August 3, 2016” (municipalities.co.za).

1.6.2 Environmental conditions of the study area

“This study area is characterised by a mean annual temperate rainfall of 400-900mm with winter being dry with frequent frost in some areas while the mean annual temperature ranges from 9°C to 17°C during winter and 22-37°C during summer and as such the area is geographically semi-arid” (Maponya & Mpandeli, 2013). “The area is situated in the eastern subtropical region and is generally hot and humid, receiving most of its rainfall in November through to March” (Kabanda, 2004). “In terms of its relief (Figures 1.3 and 1.5), the area lies on the gentle slopes and in the valleys of the Soutpansberg mountain ranges characterised by very fertile soil” (Magombo *et. al.*, 2011). Ecologically the area is unique in terms of its floristic and faunal composition and as such has high diversity of ecosystem types and species (Figure 1.2). Furthermore the area consists of three biomes namely savannah, grassland and forest with different vegetation types of which some are endemic to South Africa.

This district has Integrated Waste Management Plan and Environmental Management Plan which are in line with the National Environmental Management Act, 2008 (NEMA). There is also a wealth of natural resources which unfortunately are facing a variety of challenges, from resource over-exploitation to land degradation. However, better life for all the residents of Vhembe district can be achieved through sustainable development, which ensures efficient balance between social, economic and environmental needs. Deforestation, erosion, pollution, destabilisation of wetlands, veld fires and poaching are the main environmental challenges here. (unesco.org/biosphere/africa/vhembe). Despite the study area being very ecologically sensitive, ecologically unsustainable development activities are continuing to receive authorisations, possibly in the name economic emancipation of the destitute, particularly taking into consideration the high unemployment rate in the area.

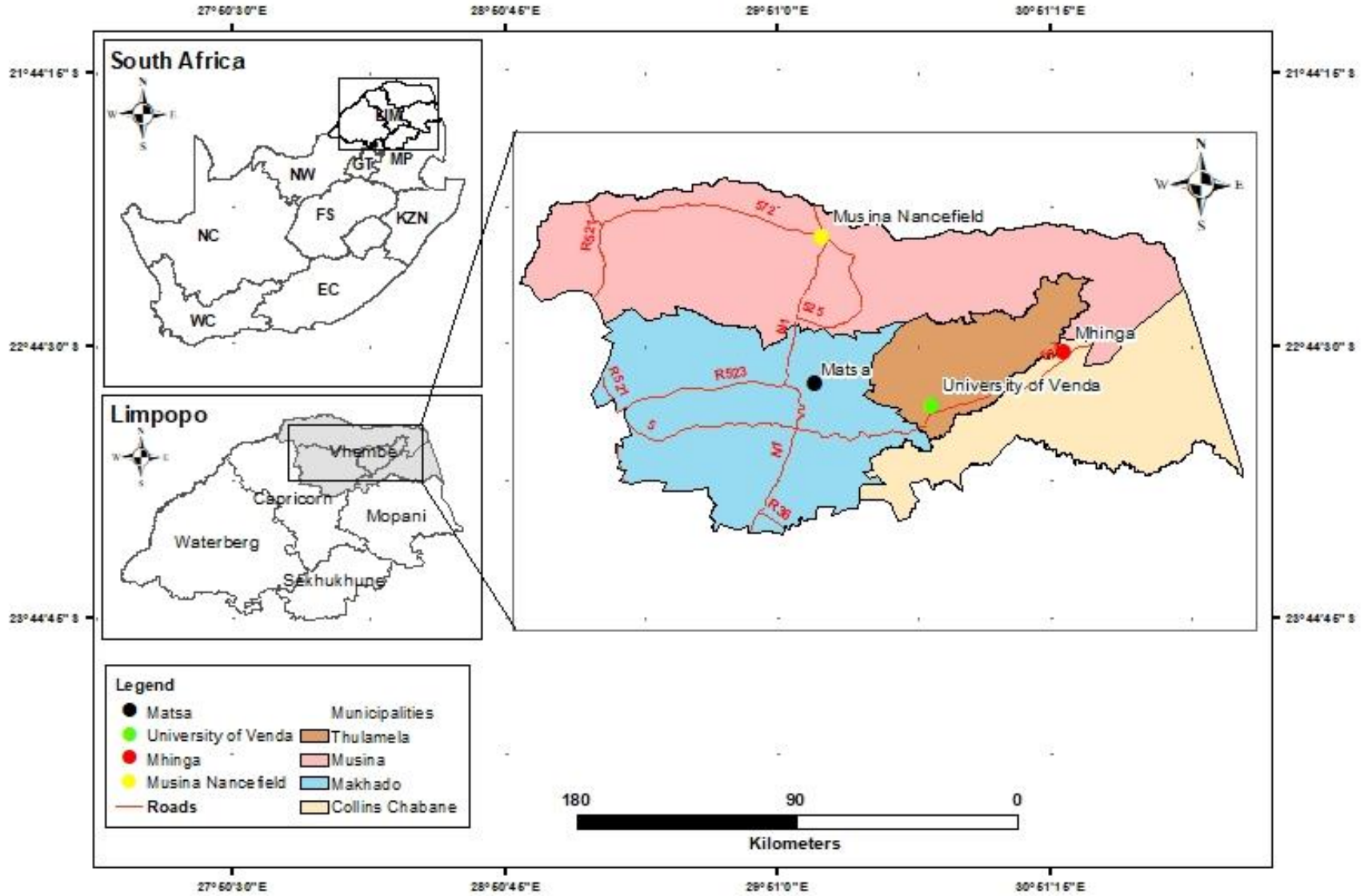


Figure 1.1 Study area

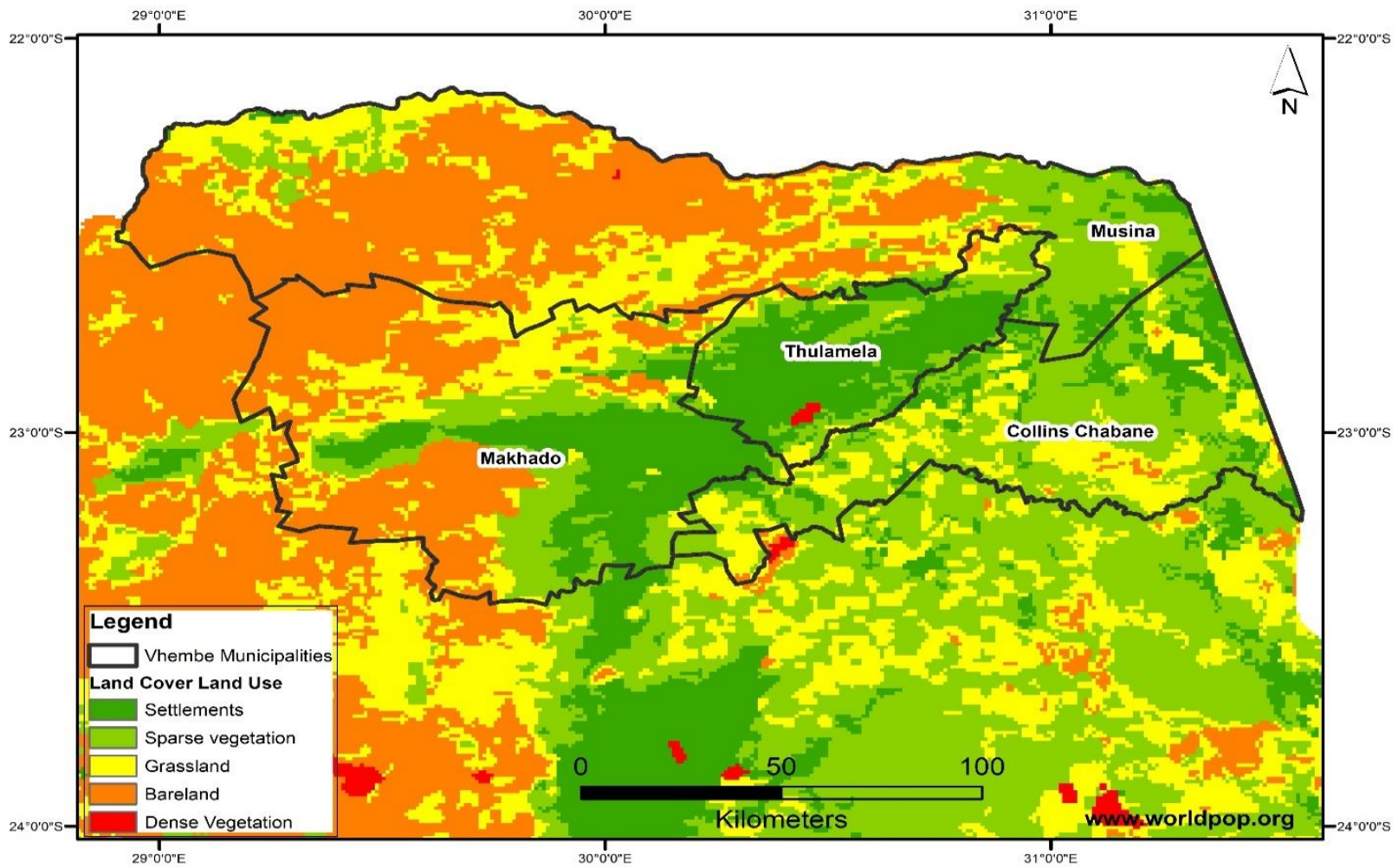


Figure 1.2 Land cover and land use of Vhembe district

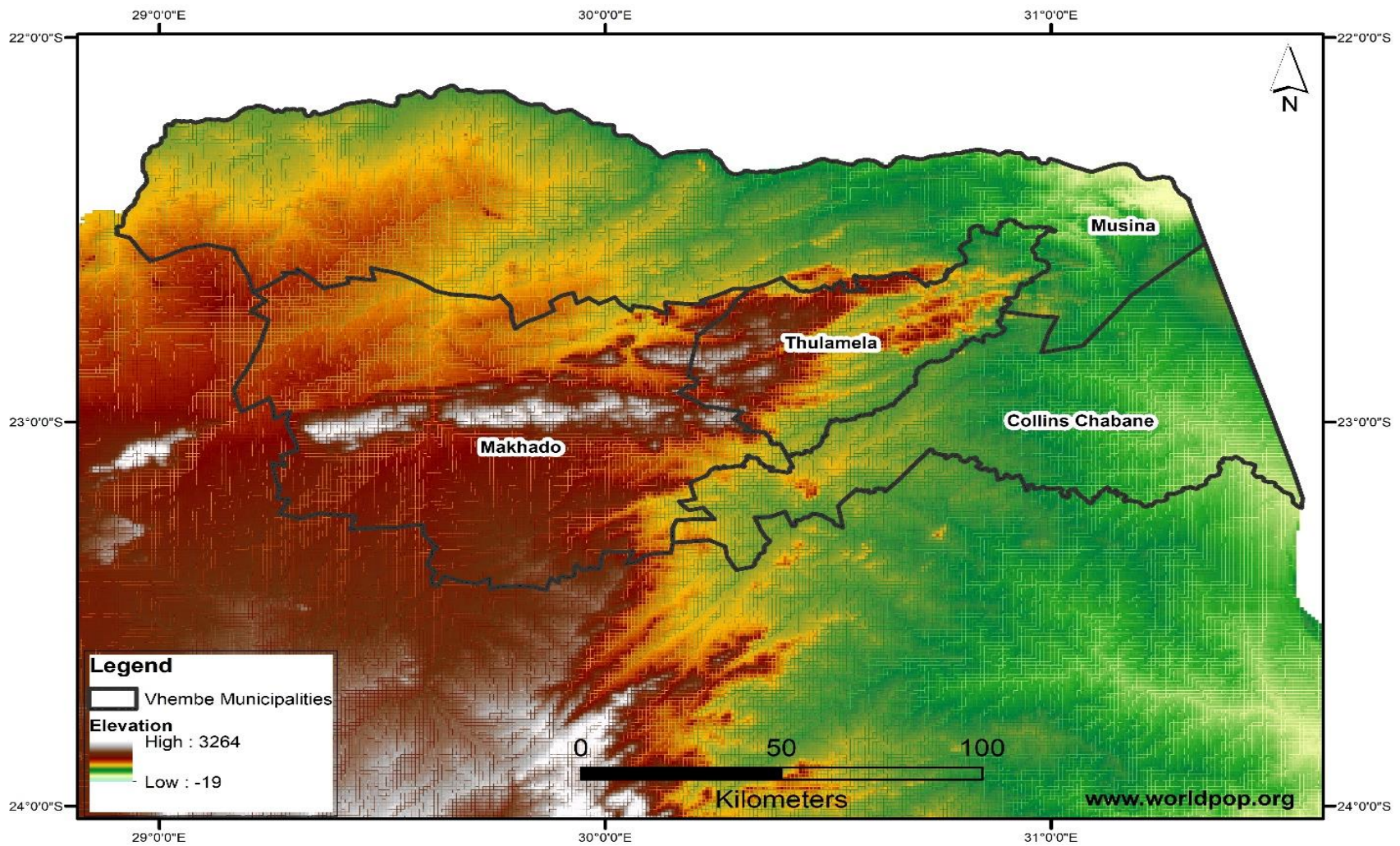


Figure 1.3 Elevation map of the study area

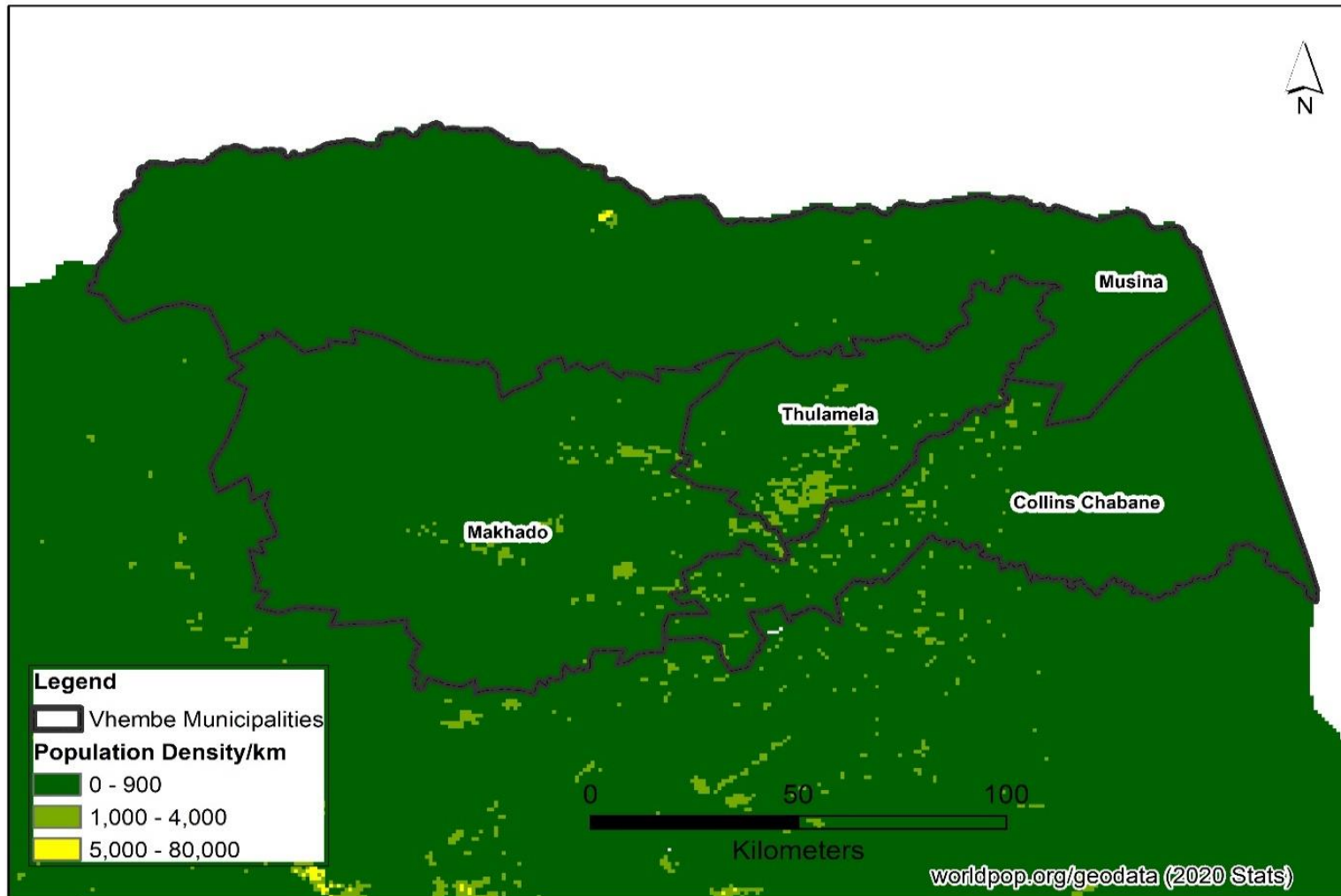


Figure 1.4 Population density of the study area

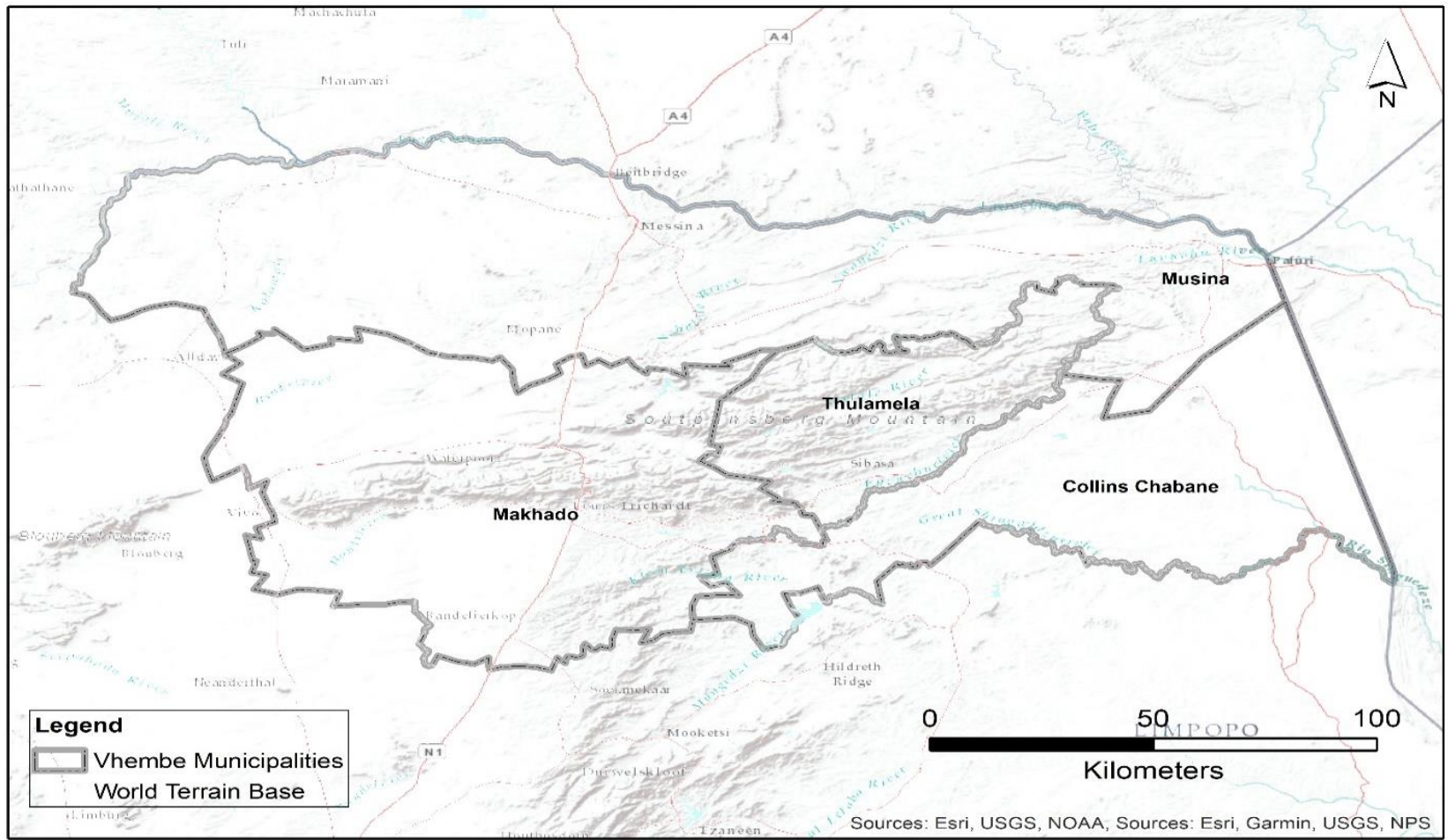


Figure 1.5 Terrain of the study area

1.7 Conceptual and Theoretical Basis of the Study

To make a sound and pragmatic approach to this study, the conceptual framework for this study was determined and as such the framework proposed hereof is based on Hasan, *et al.*, (2018) framework that was established to evaluate public participation in the EIA process. In the wake of this, process implementation for public participation is hereby evaluated in terms of process procedure and the envisaged outcomes. Environmental Impact Assessment (EIA) as a process therefore obtains its contextual relevance within the framework of sustainable development. Though widely accepted in academic and policy making circles in that it is embracive of economic, social and environmental issues, sustainable development as a concept is susceptible to various interpretations and contentions in different contexts. Currently, scholars indicate that “sustainable development has superseded the triple bottom line by adding a governance dimension to the traditional dimension” (Roos, *et al.*, 2020: 2). In essence, EIA is a tool meant to actualise aims and objectives of sustainable development in that it provides those responsible for decision making with information regarding projected impacts of the proposed development project. Put differently, EIA is a device meant to integrate and reconcile contending factors of the development projects within the framework of pragmatic development. This process, however, entails public participation which turns out to be a pivotal component and it is in this section where various variables that determine the success of the process are determined.

In terms of theoretical basis of the study, it is in this section where theories that influence public participation in EIA process are investigated and the one relevant to this context is discussed. In the wake of the fact that this study attempts to address the issue of the invisibility of the marginalised communities during public participation process, there is therefore a need to address this issue through theoretical perspectives of environmental impact assessment planning. This comes into play because this study purports that EIA procedure and public participation process are curtailed by poor planning due to the narrow view of the context in which the involvement of the public is carried out.

As pointed out by Lawrence (2000:607), there is a limited interaction between EIA and planning theories and this has resulted in EIA being largely failed in terms of lessons learned from planning theories. However, dilemmas and challenges encountered in planning theories still hamper EIA in theory and practice. A brief overview of the five major planning theories (rationalism, pragmatism, socio-ecological idealism, political-economic mobilisation, and communications and

collaboration) is hereby presented. This is meant to inform the scope and direction of this research study. Rationalism, as one of the EIA planning theories, is simple, explicit and adaptable but its planning process is generally parallel to that of EIA planning process and this is also compounded by it being autocratic and technically biased (Lawrence, 2000:610). In that there were many flaws identified with rationalism as a planning theory for EIA, pragmatism as a normative planning theory was developed. Pragmatism planning theory is based on the premise that knowledge-based experience should guide planning action. It further maintains that controversial social and environmental issues can be resolved through bargaining amongst stakeholders. Its practicality has greatly narrowed the gap between EIA theory and good EIA practice (Lawrence, 2000:612).

Socio-ecological idealism (SEI) seeks to reintegrate social and environmental substance into the planning process and as such brings together environmental values and ethics. Its adaptive planning of environmental management ensures that there is increased emphasis on environmental concerns and ecological perspectives as well as the issue of sustainability that involves future generational implications. Cumulative effects assessment, social, economic, and environmental impact assessment and more recently incorporation of biodiversity, sustainability and social justice issues as well as pollution prevention principles have furthered the integration of process and substance (Lawrence, 2000:614). However, political-economic mobilisation (PEM), in common with socio-ecological idealism, is a reaction against the lack of substance with rationalism. This environmental impact assessment planning theory has a particular concern with social, economic and environmental justice, unequal power relations and community empowerment. PEM, in common with SEI and pragmatism, appreciates the unity of theory and practice. PEM recognises existing power relations, provides a bottom-up perspective and offers strategies and methods to rectify procedural and substantive inequities. Of benefit, PEM planning theory entails aspects relevant to EIA theory and practice. PEM, however, has a tendency to be dogmatic and as such tends to deny the possibility of a solution that accommodates all parties (Lawrence, 2000:615).

The most recent planning theory, communications and collaboration (CC) is a further reaction against planning as a unitary endeavour and elements of this theory are evident in pragmatism, PEM and SEI, all of which view planning as a collective exercise. Communications and collaboration planning theory involves two overlapping components: one that focuses on communications and the other on consensus building and collaborative visioning. The collaborative component of this planning theory focusses on finding common ground amongst contending groups and as such this is attainable through group discussions, argumentation and

negotiations. In the wake of this, facilitators ensure that all participants are given opportunity to be heard and that all their concerns are taken seriously (Lawrence, 2000:616). This planning theory concurs with what is maintained by NEMA, 1998 (Act 107 of 1998) in asserting that potential interested and affected parties should be given opportunity to comment on or raise issues relevant to the application during public participation process (DEA, 2017). This platform can help with regard to making the process of decision-making more transparent thus leading to greater public agreement and acceptance. However, some difficult decisions may be made which may not be supported by all stakeholders and as such this theory does not appear to be well adapted to addressing highly complex issues. Collaborative planning, as a component of this planning theory (CC), is a central feature of EIA theory and practice and as such informs the development of principles for public involvement (Lawrence, 2000:617).

Given the characteristics, strengths and limitations as presented by the overview of these planning theories, a conclusion can be drawn that these theories are virtually mutually exclusive and as such cannot be a solution for every context both in theory and practice. There is therefore a need to adapt planning theories so that they can suit different contexts presented by current EIA theory and practice. However, this can be done by matching strengths of planning theories to prevailing local conditions and as such the negative tendencies associated with each theory can thus be overlooked or discarded. This partial integration of planning theories is what Lawrence (2000) calls paradigms. The evolution and refinement of new planning theories, the exploration of middle-ground among planning theories, and introduction of alternative perspectives have all contributed to a reorientation in planning theory (Lawrence, 2000:619).

With the central aim of this study being to evaluate the extent to which Environmental Impact Assessments of selected development projects in Vhembe district comply with public participation process as stipulated by EIA policy guidelines and goals provided within EIA legislation in South Africa, this study therefore focusses on the discussion of social and environmental justice. In the wake of this, there is therefore no particular compatible planning theory efficiently dictating the scope and direction of this study. However, the most preferred planning theory in this regard is communications and collaborations since it has attributes and principles that best address the issue of public participation. However, given the context of EIA as the basis for this study, communications and collaborative planning theory can best work in collaboration with socio-ecological idealism (SEI) planning theory though the limitations of both these theories need to be discarded.

Basically, SEI effectively addresses the issue of social and ecological systems within the context of sustainable development. This planning theory also highlights the need to involve diverse stakeholders in decision-making. However, communications and collaboration planning theory is effective in terms of providing a platform for effective engagement and interaction amongst different stakeholders. Together, these theories emphasise on the importance of inclusivity in terms of engaging the public for sustainable development initiatives. These two planning theories also promote understanding of interaction between social and ecological elements meant for effective approach to public participation – hence their choice for this research study.

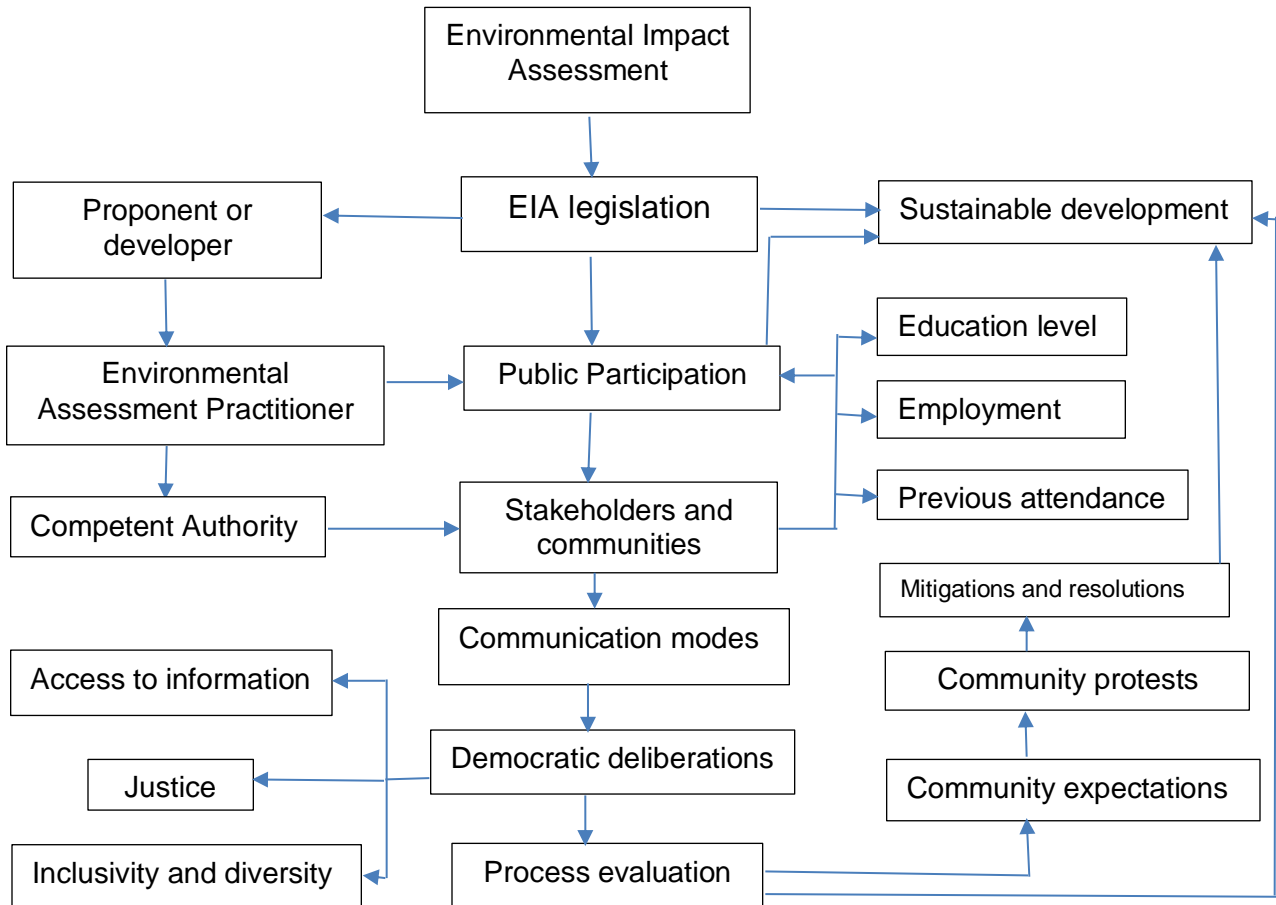


Figure 1.6 Conceptual Framework of the Study

1.8 Operational definitions and key terms

- **Applicant**

An applicant is a person who has applied for the approval of the project or activity to the relevant department (DEA, 2017).

- **Environmental impact assessment**

“This is a public process used to identify, predict and assess the potential environmental impacts of a proposed project on the environment” (DEA, 2017: 218).

- **Environmental assessment practitioner**

This is a professional scientist and trained “person who acts in an independent and unbiased manner to provide information for decision-making” (DEA, 2017: 217).

- **Interested and affected parties**

“These are individuals, communities or groups, other than the proponent or the authorities, whose interest may be positively or negatively affected by a proposal or activity and/or who are concerned with a proposal or activity and its consequences. This group may include local communities, investors, business associations, trade unions, customers, consumers and environmental interest groups” (DEA, 2017: 218).

- **Public participation**

“Public participation is a process by which potential interested and affected parties are given opportunity to comment on, or raise issues relevant to the application” (DEA, 2017:5).

- **Registered interested and affected party**

“Registered interested and affected party means an individual or interest group whose name is recorded in the register opened for a particular application in terms of environmental impact assessment regulations” (DEA, 2017: 219).

- **Stakeholder**

“This refers to a sub-group of the public whose interests may be positively or negatively affected by a proposal or activity and its consequences and this includes proponents, authorities and all interested and affected parties but excludes environmental assessment practitioners” (DEA, 2014: 12).

- **Sustainable development**

“Sustainable development is the development that meets the needs of the present while safeguarding Earth’s life-support system, on which the welfare of current and future generations depends (Griggs, *et al.*, 2013: 306).”

1.9 Research Thesis Outline

This research study is made up of chapters. Chapter one provides the background to the study, problem statement, operational definitions, study area, justification of the study, research aims and objectives as well as chapter summary whereas chapter two deals with literature review regarding theoretical framework and practices in EIAs of development projects in general. Research design and methodology are dealt with in chapter three. This chapter focuses on sampling procedures, methods of data collection, procedures for data analysis and how results are presented. The framework for research design and methodology is also presented in this chapter.

Chapter four focuses on the presentation and discussion of data obtained from the Environmental Impact Assessment of development projects in Vhembe district. Also provided in this chapter are the detailed results on the level of understanding of the EIA process for public participation process by the respective communities. It is in chapter five that the results that best describe the EAPs level of compliance with the guidelines of the EIA legislation for public participation in South Africa are presented and analysed. Chapter six discusses public participation practices by the EAPs in relation to community expectations in the identified development projects within Vhembe district. The rationale for an improved public participation process for EIA is discussed in chapter seven and a context-based adaptable strategic framework is developed to make the process more effective and consistent in practice. Chapter eight focuses on conclusions and possible solutions are also recommended regarding the identified problems and the findings made. A strategic framework that will improve public participation process is developed by adapting applicable public participation principles to the local conditions.

1.10 Chapter summary

This chapter provided the background for the study. It also provided the problem statement, research aim and specific objectives, justification of the study, description of the study area, operational definitions and key terms; and the research outline. Basically, this chapter reflected on the significance and importance of this study as well as outlining the scope thereof. The next chapter looks at the applicable literature relevant to the study.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

“Preliminary literature study”, as McMillan and Schumacher (1993:574) point out, “presents the initial conceptual frameworks used in phrasing foreshadowed problems or questions and a need to study by identifying gaps in our knowledge.” With literature review being a necessity for the research of this nature, it is therefore imperative to consider it for knowledge gap exposition around the matter in question. According to O’Faircheallaigh (2010:19), “the issue of public participation in EIA is a major focus for scholars and practitioners.” Following O’Faircheallaigh’s (2010) assertion, one could presume that the success of EIA, an integral process for environmental authorisation, hinges on public participation process which, apart from involving the applicant/developer and the EAP, also brings on board other stakeholders. Apparently, contributions and engagements during public participation meetings can be quite pivotal in influencing decision-making by the competent authority. As such, literature review for this study is meant, amongst other reasons, to present a critical view of current knowledge as well as to give a background on EIA legislation development, public participation concept exploration, and rationale for public participation, as well as to establish constraints, challenges and flaws associated with public participation process in environmental impact assessment. Other aspects entailed herein include merits, importance and benefits of public participation process.

Considering the issue of public participation and in view of the ever-changing social landscape due to the nature and composition of civil society, there is a growing need to involve the general public for decision-making process concerning the proposition and development of projects. Public participation is therefore a crucial device for EIA as it is a platform for the involvement of the public to express their inputs in the form of knowledge, comments, fears and concerns. In view of this, public participation cannot therefore be used as a means to an end by presenting the public with an opportunity to only be informed about the perceived impacts of the proposed development project on the natural environment. The status quo cannot remain the same whereby the environmental assessment practitioners only consult with the public just to garner support for the proposed project and to be compliant in terms applicable environmental legislations.

This therefore calls for development projects which have environmental impacts at levels which are minimal and at most can be mitigated or reduced thereby effectively dealing with increasing levels of pollution and environmental degradation. Succinctly put, to ensure that development projects are sustainable, EIAs are therefore imperative and so is the process of publication

participation. However, the same cannot be said about how EIA and its integral component, public participation are considered within the study area, Vhembe district. Obviously, with this trend of practice where public participation in EIA is not accorded the value that it deserves, anthropocentric activities will continue to receive authorisation in the name of economic emancipation of the destitute and in the process the natural environment will be degraded. In this regard, sustainable development becomes an issue that should be prioritised. This comes into play following the progress made against poverty, hunger and disease through Millennium Development Goals (MDGs) which have led the world to undergo change in climate and other environmental problems. “Although specific definitions vary, sustainable development embraces the so-called triple bottom line approach: economic development, environmental sustainability and social inclusion” (Sachs, 2012). The issue of climate change has brought into perspective the manner in which EIA for development projects has to be conducted.

“Humanity is currently facing many overlapping crises of environmental sustainability, including: climate change resulting from human-caused emission of greenhouse gases, massive environmental pollution resulting from run-off of nitrogen-based and phosphorus-based fertilizers; massive loss of biodiversity caused by unsustainable demand on forests” (Sachs, 2012). Given the current situation, the need for sustainable development goals cannot be overemphasised. With the human population forever increasing, definitions of sustainable development need to be revised in order to include protection of people and the environment. The need for the term sustainable development to be redefined was purposed at including components of the Earth’s systems (Griggs, *et al.*, 2013). Based on the revised definition of sustainable development, sustainable development goals were formulated.

Basically, concerted efforts are being made to ensure that public participation becomes an integral part of decision-making processes and as such effective and ethical practice of this process amongst environmental assessment practitioners is imperative (Hourdequin, *et al.*, 2012). According to Andre, *et al.*, (2006:1), “there is a need to improve public participation as well as stimulating discussions amongst stakeholders thereby resulting in better projects, better development, collaborative governance and ultimately a more sustainable development.” Currently, public participation is being driven to become as indicative of citizen empowerment, accountability and good control (Morrisey, 2000). In the wake of this, the custodians of development projects become compelled to be transparent to the public and in the process collaboratively work with them before, during and after the project and as such this requires that the public be given empowerment through skilling, and information and knowledge dissemination.

Though studies for public participation have been conducted differently in different contexts, efforts have as well been made regarding studies pertaining to public participation in EIA and frameworks have been developed to evaluate this process. However, the issue of public participation is not without challenges. They range from its theoretical conceptualisation through to its practical application hence its varied theoretical connotations and contested practical applications (Glucker, *et al.*, 2013). The section below deals with the broad spectrum through which public participation is dealt with both theoretically and in practice across the different regions of the world. This will also help in terms of indicating the countries where this studies have been conducted as a comparative exercise to the South African context.

2.2 Global foundations and practice of public participation

“The issue of public participation in environmental matters was prominently expressed for the first time at the global level in Principle 10 of the Rio Declaration on Environmental Development in 1992 and since then, public participation in environmental matters has been increasingly discussed and implemented worldwide” (Mauerhofer, 2016: 481). In essence, this assertion is implicit of the fact that this initiative has since followed calls and activities globally though public participation could differ in different regions and countries as a result of local contextual factors.

2.2.1 Public participation developments and practice in Europe

“The implementation of the principle of public participation has shown much progress in Europe as compared to other continents. Public authorities have been obliged to make environmental information about development projects available and accessible to the general public and Non-governmental Organisations have been given opportunities to challenge decisions made on such issues” (Mauerhofer, 2016: 482). In this regard, the principle of transparency has been promoted. As purported by Andre, *et al.*, (2006), all relevant information has to be made available to all participants and this is one of the operating principle aimed at making public participation effective and necessary for environmental issues. Accordingly, Hasan, *et al.*, (2023) assert that transparency indicates democratic governance of a country and as such formation of environmental groups are encouraged in democratic countries like in Europe. For example, Denmark is one country in Europe that showed a decentralised and legally prescribed system for horizontal and vertical integration of decision-making processes way ahead of other countries (Mauerhofer, 2016). This means that Denmark has been one the European countries that was a pioneer of implementing effective and rational operating principles of public participation and as such improved on its principle of democratic governance.

In Norway, public participation has been considered an effective tool for the development projects in that this country was among the first countries to sign and ratify European Landscape Convention (ELC) which thus calls for broad public participation. It is through ELC that signatory parties were obliged to establish procedures for the participation of the general public and other interested parties (Eiter & Vik, 2015:44). This form of commitment shows a high level of policy implementation in the European countries when it comes to the issue of involving the public in decision-making. Basically, when members of the community are ensured active involvement and influence in matters of public concern, then it implies empowerment. In this regard, “the best and most effective form of participation has been referred to as the transfer of power to the public” (Eiter & Vik, 2015:45).

“Currently, public participation practice in Norway is a bit different and ahead of other European countries in that there are mandatory minimum requirements for public involvement in the first and the last phases, such as announcements and hearings unlike what was the case in the past where public participation was limited to announcement of start-up” (Eiter & Vik, 2015:46). Furthermore, “public participation in the development projects in Norway occurs at the very beginning of the planning process of the projects: desk study stage. Also of a different norm in Norway is that open meetings are not only announced through the local newspaper but also through posters and open office days. Open days are meant for those people who are unable to participate in the open meetings” (Eiter & Vik, 2015:49). However, the manner in which public participation is conducted in Norway can be something of great importance in terms of reference by other European countries. For instance, Eiter and Vik (2015:51), suggest that “in that different spatial planning processes require different methods like making use of visual elements, this can have a potential to improve public participation in other European countries.” This depiction by Norway shows that the practice of public participation is at an advance stage and this can be a prototype for other regions across the world.

2.2.2 The development and practice of public participation in America

The situation of public participation in this region offers a diverse scenario in that the continent has a huge socio-cultural variety ranging from Canada in the north to Argentina in the south. For example, “North American countries have agreed on public participation agreements that provide for transboundary EIA and in addition provided varied avenues for public participation” (Mauerhofer, 2016: 485). In comparison, “access to environmental information is widespread in the northern countries like Canada and the US whereas in the southern countries the

environmental information is often missing or hardly available” (Mauerhofer, 2016: 485). There is a reiteration to this sentiment by Zhou, *et al.*, (2019) in that Canada mandates information disclosure in waste-disposal projects. Implicit with this assertion is that environmental information is hardly made available for people in South America and as such participation is not encouraged. This implies that the issue of openness and transparency with regard to public participation in South America is still lagging behind and so is the issue of environmental governance.

2.2.3 Public participation developments and practice in Asian countries

“The situation of public participation in Asia is multifaceted. A wide variety of political systems and socio-cultural backgrounds in geographical and demographical terms exist thereby presenting a whole new set of challenges” (Mauerhofer, 2016: 486). Regarding public participation development initiative, countries in central Asia such as Kazakhstan, Kyrgyzstan and Tajikistan were in the forefront of ratifying the Aarhus Convention as party members. Secondly, countries such as Japan, Singapore and South Korea formed a group of highly developed entities with very progressive legal systems whereas China and the Philippines have shown considerable progress with regard to certain pillars of public participation. Generally, public participation has been seen as a means to overcome authoritarian structures in certain countries of this region (Mauerhofer, 2016: 486). Despite the several promises of legislative enactment and some success stories of projects, politicians in China rejected a meaningful institutional framework to allow public participation (Li, *et al.*, 2012). “In China, access to environmental information is rather limited in comparison with European and Latin American countries and in India there has been considerable progress even in terms of access to justice” (Mauerhofer, 2016: 487).

A scenario in Bangladesh presented a very unique perspective of public participation in the region in that there was a pre-people approach whereby EIA study for fisheries led to the formation of community groups through which community members were trained to administer the whole EIA process (Hasan, *et al.*, 2018). This was a great step in the right direction in that community members got capacitated and empowered to be able to conduct EIA on their own rather than depend on environmental consultants who may at times discard or disregard their inputs and suggestions during report writing for decision-making process. Furthermore, trained community members are given responsibility to disseminate information reported in the EIA study through printed media, workshop and rally and in this regard comments and concerns for community members are carefully accounted for (Hasan, *et al.*, 2018). In this regard, public participation practice ensures that there is consideration of community’s inputs towards decision-making

thereby making this process an essential tool for EIA. However, the situation is not the same in all the development projects in this country. NGO-run projects have significant contrast with government-run projects wherein public participation in EIA study is very limited and stakeholders' influence in decision-making is very insignificant (Hasan, *et al.*, 2018). Implicit with this assertion is that views of affected and interested members of the community do not receive maximum consideration and this can be a discouraging factor in terms of further attendance of public participation meetings.

“Environmental public participation in China is different from the rest of the Asian countries particularly because of nature of the state which is highly fragmented and decentralised” (Johnson, 2020:2). Basically, EIA was introduced in China in 1979 and since then has been receiving strengthening and reviews over the decades. The EIA law was amended in 2016 with an attempt to make it more administratively efficient. However, public participation has only been recognised by China government in the 1990s and the central government also passed legislation to incorporate public participation in 2008 (Johnson, 2020). “Despite several reviews and amendments of environmental legislations in China whereby all projects that require an EIA report need to conduct public participation, the application of the law has not been consistent. For instance, developers can limit public participation to discussion with experts, thus excluding ordinary people who may be affected by the project. Local governments tend to prioritise economic growth over environmental concerns” (Johnson, 2020:2).

“EIA study reports in China also leave much to be desired. For instance, public participation study for a high-speed railway project in China showed an apathy in terms of stakeholders' attendance where 60,7% of them did not attend because they thought it was not worthy to do so since their concerns were not likely to be taken into consideration. Likewise, in Pakistan public concerns were usually ignored in most of the EIAs of government projects” (Hasan, *et al.*, 2018:15). Furthermore, “the Chinese Ministry of Environmental Protection (MEP) publicly acknowledges that falsification of EIA reports is widespread and this is even made complicated by the fact that there is a gap between the central government's support for public participation and its implementation. As a result, public participation is frequently either overlooked or is carried out in a tokenistic manner and at times fake public participation data has been inserted into EIA reports” (Johnson, 2020:3). Despite being institutionalised, public participation in China presents a gloomy picture and as such cannot be an effective tool for EIA of development projects. In its current state, public participation in China cannot achieve any of the goals for sustainable development.

2.2.4 The development and practice of public participation in Oceania

“Public participation in environmental issues in Oceania has shown some considerable progress although there are apparent differences in some areas. Australia shows involvement of its citizen in public issues for decision-making. Access to information through awareness campaigns is common in this area. Diverse cultures also play an important role in determining how public participation should be designed” (Mauerhofer, 2016: 487). The same sentiment has been reiterated by Andre, *et al.*, (2006) in asserting that public participation should be adaptive and communicative since communities which are heterogeneous in terms of demographics require effective means of communication. However, “in Indonesia, insufficient structural arrangement and institutional capacity have been attributed as the cause for lack in transparency and stakeholder involvement in EIA. A study of 18 proposed projects in Indonesia showed a disregard of local stakeholders’ objections thus prompting them to reject the project proposals” (Hasan, *et al.*, 2018:15). Based on the assertions made, the practice of public participation in this region is very much diversified in terms of how it is carried out as well as its level of governance with regard to environmental legislations. There is still much to be done in terms of legislative development and public participation practice and the issue of sustainable development.

2.2.5 The origin and practice of public participation in Africa

Since its introduction, the issues pertaining to EIA have been adopted in several countries but the integration of EIA concerns in Africa was first considered in South Africa in 1982 while most of the African states formalised EIA legislations after the Rio Earth Summit in 1992 (Mubanga and Kwarteng, 2020). Although EIA has spread worldwide, its implementation has varied from region to region. However, the differences in EIA system performance and its effectiveness can also be observed among countries within the same region. For instance, some countries within Africa such as Egypt, Ghana, South Africa, Kenya and Tanzania have a good quality EIA system (Mubanga and Kwarteng, 2020). “Also within the same region, the Southern African Development Community (SADC), Zambia and South Africa are not in the same level of performance regarding the implementation of their EIA systems. South African EIA system’s performance is relatively good whereas that of Zambia is lagging behind due to inadequacies in the regulatory framework” (Mubanga and Kwarteng, 2020:2). In that public participation is an integral component of EIA, the performance of EIA system thereof is dependent upon its procedural performance. Basically, without public participation which creates a good platform for public inputs, EIA system’s performance is bound to experience some challenges.

“Public participation is an issue of growing interest in Africa. Numerous initiatives exist in Africa to promote public participation for the whole continent” (Mauerhofer, 2016: 483). In South Africa, there is a legal provision for the right of the public to be involved in environmental decision-making though Murombo (2008) criticised it for not creating a framework for informed public participation due to its lack for legal clarity. However, “as for the procedures regarding Environmental Impact Assessment which usually addressed development projects, public participation is considered an important issue in Africa” (Mauerhofer, 2016: 484). In the South African context, promulgated EIA laws are considered ineffective tools for sustainable development in that they leave much discretion to the Environmental Assessment Practitioners to determine the form in which public participation could assume (Murombo, 2008). Despite a very good array of environmental legislations the poor and the natural environment continue to be marginalised in decision-making (Patel, 2009). Whilst there is a need for public participation to receive sufficient professional attention in South Africa (Du Pisani and Sandham, 2006), public participation in Zimbabwe is found to be quite weak (Mauerhofer, 2016: 484).

After a study on the comparative evaluation of environmental impact assessment legislation of South Africa and Zambia, Mubanga and Kwarteng (2020) found that there is a considerable improvement in the quality of South African EIA legislation following a series of amendments. Nonetheless, EAPs still have the authority to conduct public participation the way they deem fit. This practice creates some sort of paucity in terms of how public participation should be conducted in order to make it procedurally and substantively effective and thus become a necessary tool for EIA. With its procedural and substantive effectiveness, public participation will ensure that the natural environment is protected from ecologically unsustainable development projects. This will eventually ensure that every project that is carried out is compliant with objectives and goals of sustainable development and in the process issues of social and environmental justice will be taken care of. However, what can still be considered as a challenge in the study area, is the substantive performance of the South African EIA system. In practice, the issues of environmental protection and sustainable development are still not prioritised. For instance, unsustainable development activities are still observed in many areas including those along the banks of Luvuvhu River and Nandoni dam in the Vhembe district.

Finally, the observation made is that global situation regarding public participation in environmental issues is diverse amongst different continents and countries of the world. “Developed countries show a rather strong progress in public participation and European countries have taken the lead in this regard” (Mauerhofer, 2016: 488). However, the situation is

not the same in some of the developing countries across the globe. For instance, studies have revealed that EIA performance is considerably weak in countries like Zimbabwe, Central Africa and Rwanda and this can be attributed to corruption and political meddling thereby leading to lack of transparency (Hasan, *et al.*, 2018:16). Public participation in South America has been found lacking due to poor and inconsistent environmental governance in the region whereas countries in Asia present a very much diversified practice due to different political systems and socio-cultural backgrounds in the region. Precisely, EIA performance and practice is varied across the globe and even within countries of the same region due to a variety of factors and this is what this research study also seeks to address though at a local scale. Basically, there is a need to have public participation formalised through the development of a framework that is considerate of local contextual factors determining how such a process should be formally conducted without disregarding empirical knowledge and applicable legislations. Be that as it may, public participation development and practice in the different regions and countries of the world need to be coordinated along sustainable development goals and in this regard it is imperative to discuss this process' conceptualisation in EIA practice.

2.3 Conceptualisation of public participation in EIA

“Environmental Impact Assessment (EIA) is a process designed to support the management of environmental impacts related to project-specific developments” (Roos, *et al.*, 2020:1). This procedure therefore obtains its contextual relevance within the framework of sustainable development. Though widely accepted in academic and policy-making circles in that it is embrative of socio-economic and environmental issues, sustainable development as a concept is susceptible to various interpretations and contentions in different contexts. Currently, “scholars indicate that sustainable development has superseded the triple bottom line by adding a governance dimension to the traditional dimension” (Roos, *et al.*, 2020:2). However, contentions are not only limited to process definition since the same have been observed within EIA in practice. In essence, EIA is a tool meant to actualise aims and objectives of sustainable development in that it provides decision-makers with information regarding projected environmental and socio-economic impacts of the proposed development project. Precisely, EIA is a device meant to integrate and reconcile socio-economic and environmental factors of the development projects within the framework of sustainable development.

“However, the future of EIA is threatened because proponents see it as an expensive and time-consuming process (Roos, *et al.*, 2020:1) whereas on the other hand its “value and benefits have also been questioned by specialists, researchers and governments” (Retief, 2010). In that EIA as

a process is comprised of several elements, the same are not spared of criticism. Public participation as a crucial element of this procedure has as well been a bone of contention in terms of what it means as well as its necessity in practice. Considering the purpose of this research, public participation would therefore entail access to information regarding environmental, social, economic and governance issues with regard to development projects requiring EIA. This also includes remedial avenues which are inclusive of public concerns and inputs based on interests, indigenous knowledge and experiential expertise of the I&APs, and in particular the general public. In essence, public participation provides a formal platform for public engagement towards effective environmental governance. In the wake of this assertion, Wang, *et al.*, (2020) concede that public participation is critical in making environmental governance effective.

2.3.1 Public participation defined

The concept of public participation is highly contested and this is evident in the way different scholars and practitioners define it. Accordingly, public participation as a concept has been deliberated upon in various circles (Bishop & Davis, 2002) and subjected to a variety of connotations (Sebola, 2017). As pointed out by Glucker, *et al.* (2013), a closer look at some of the academic studies reveals that most scholars differ with regard to what the concept public participation means in the context of EIA. In order to get the precise meaning of the concept public participation, it is therefore very much important to break it into two components, “public” and “participation”. In essence, the broad nature of this concept makes it very complex and intricate in practice and also theoretically. In literature as it is in practice, public participation as a concept has been subjected to a variety of interpretations and connotations. At some stage and point, this concept has been misconstrued to mean the same with other concepts like; public involvement, citizen participation, stakeholder participation; thereby meaning different things in different setups or contexts (Gidey, 2017). Given this context, the use of these synonyms in theory as in practice may be very confusing thus make the theoretical definition of this concept very difficult. The breaking down of “public participation” into components only provides the functional and not the lexical definition of the concept. It is functional in nature in that “public” focuses on *who* the participants are whereas “participation” deals with the modes of participation (that is *how*). However, “recent studies have highlighted that public participation in EIA is a highly dynamic phenomenon that plays multiple and sometimes contradictory roles” (Johnson, 2020:1). It is therefore imperative to elucidate who the participants of the process should be and as such this will make both practical and theoretical sense of the process.

- **“Public” defined**

The exercise of defining “public” is not without contentions. According to Doelle and Sinclair (2006), any definition of the concept public is implicit of the notion of exclusivity. Succinctly put, determining who should participate is implicitly exclusive in the sense that some members of the public will not qualify to be part of the Interested and Affected Parties (I&APs). Once you determine the I&APs, other members of the community will be excluded by virtue of them not being “interested” or “affected”. What then? Does it mean that everyone should be included in the process of public participation? In essence, is the notion of “all-inclusive” practically plausible? If not, who then should be considered the “public” in the context of public participation in EIA? Since public participation as a process is not only limited to EIA, this could also be viewed and defined differently in different contexts. Precisely, the term “public” is defined differently for various purposes as informed by various underlying philosophical views. Furthermore, there is an interchangeable use of the terms “public”, “stakeholders” and “citizens” in EIA literature (Glucker, *et al.*, 2013) and this has complicated matters even more. In essence, these terms are not synonyms in theory and practice. In the wake of these assertions, too broad the conception of the term “public” can make the process too complex in terms of composition and too divergent and broad in terms of competing and conflicting interests.

Defining the term public in the context of who should participate carries with it a connotation of inclusion and exclusion. On the contrary, to assume that public means everyone thus implying that everyone qualifies to participate has practical implications. However, the precise definition of the term public is determined by various factors; purpose, goal, objectives, magnitude and type of the project proposed including other various contextual factors. This explanation is, however, expressed in the practical context and not the theoretical perspective of the concept (Gidey, 2017). The complexity of the term public is intensified when it is interchangeably used with the concept “stakeholder”. Precisely, the two terms have different meanings to different people in different contexts. Even within the context of EIA, the two terms “public” and “stakeholder” do not carry the same notion. Although it is not the purpose of this of this research study to define the term “stakeholder” in the context of EIA, this concept generally refers to an individual, group, or agency that has a stake in the proposed project. This may include those who are interested or affected by the project, either directly or indirectly, or those who are involved due to legislative imperative (DEAT, 2002). The implication of the assertion is that this term is not inclusive of all participants but exclusive in the sense that it is not everybody who qualifies to be part of the proceedings let alone participate. However, for the purpose of this research study, public will refer

to collective participation of all individuals and groups whereas stakeholders refers to the participation of all organised entities. In this context, the concept public is inclusive of all who are interested or affected by the proposed development project but excludes the applicant, environmental assessment practitioners and public participation practitioners by virtue of them being independent.

The broad conception of the term public is supported within environmental circles. There are those who advocate for an all-inclusive notion of the term public in that it is open-ended thereby including anyone as well as organised structures like civic organisations and non-Governmental Organisations (NGOs) (Gidey, 2017). This sounds theoretically and democratically right though practically unsound or implausible. On the other hand, a narrow perspective of the term “public” is very restrictive in that it calls for those who are potentially interested and affected by the impacts of the development project. This narrow perspective of the term “public” is specific and exclusive (Gidey, 2017). The two rather polarised definitions of the term ‘public’ may be theoretically and academically sound but are always found wanting in practice. It is therefore suggested that a pragmatic approach to this conception be applied on a case-to-case basis. Succinctly put, the term public should be contextualised as informed and determined by the nature of the case in point.

Precisely, the broad perspective of the concept can be relevant and workable in certain contexts and so is the narrow perspective of the concept and vice versa. In practice, the nature and composition of the public can be determined by factors such as tradition, culture, literacy level, socio-economic status, nature and magnitude of the proposed project – amongst others. In practice, the type and magnitude of a proposed development project can be the determining factors on who the public will be. For instance, the construction of an access bridge over Mvudi River in Thulamela Local Municipality could not have as much interest and draw more public than the construction of a regional shopping mall like Thavhani Mall. Essentially, the size and composition of the public affected and interested in the development is hereby determined by the type and magnitude of the proposed project. Also of note is that in certain deep rural areas of Vhembe district women do not have a voice and as such their participation in EIA process is virtually non-existent.

Furthermore, there is also no consensus on who should participate in the public participation process. According to Gucker, *et al.* (2013), the term “public” is a recurrent concept in EIA literature and observations made in the studies conducted are that authors do not necessarily define who should be involved. In the wake of this, the terms ‘the public’, ‘stakeholders’ and

'citizens' are often used interchangeably in EIA literature. However, there seems to be broad consensus that 'the public' refers to anyone interested in or affected by a decision. From a democratic point of view, an inclusive approach for participation in EIA seems reasonable but allowing everybody to participate also bears a risk particularly considering that 'the public' is not necessarily a homogenous entity and as such different members of the public may have different interests resulting in different expectations towards participation (Petts, 2003). However, in that the use of the term 'the public' can be misleading and misconstrued as being homogenous group with a set of agreed common interest and aims, the term 'stakeholder' is thus proposed as a more appropriate alternative as it implies a diversity of opinions and interests (DEAT, 2002).

- **“Participation” defined**

Just like the term 'public', the term 'participation' is highly contested both in theoretical and practical perspectives since it means different things to different people in different fields or contexts (O'Faircheallaigh, 2010). However, implicit with the term 'participation' is that it entails interaction of those who are involved in the process, the public and other participants. Precisely, participation is an interactive process whereby the public exchange views, opinions and knowledge with other participants in the process. Like the term "public," participation is a term that is widely used in different contexts by different people for different purposes and objectives – hence its contested meaning. In the context of EIA, participation should imply vertical and horizontal interaction amongst various members of the public. Basically, opportunity to participate has a democratic inclination and as such it is inclusive of those who are part of the process (Gidey, 2017). Implicit with this explanation is that participation is an interactive process and when applied in the practical context of EIA, it therefore involves discussions and deliberations about projected environmental and socio-economic impacts of the proposed development activity or project. Through deliberative process, participation involves discussions amongst members of the public thus leading to plausible views for considerations of conflicting and competing views and opinions before establishing common grounds for consensus (Gidey, 2017).

Accordingly, participation must be interactive, collaborative and deliberative yet devoid of coercion and manipulation (Gidey, 2017). In this regard, Hourdequin, *et al.* (2012) warn that members of the public should not view participation to promote their own narrow interests. Put differently, process domination during interaction and deliberations reduces other participators to spectators of the process and as such this does not qualify the process to be interactive. Consideration should, however, be made regarding the issue of participation concerning those in attendance of the public participation meetings, for instance. Precisely, being in attendance of a public

participation meeting cannot necessarily accord one a status of being a participant if one is not actively involved in the process. In that public participation as a process must be interactive therefore it follows that even its attendants must be actively involved thereof. However, caution must be taken as well that being vocal during these meetings should not in any way be misconstrued to be active participation or being interactive if that does not add value to the process. Of note, however, is that forms of participation in the current context are varied. Some academics consider voting, campaigning, lobbying and marching in protests as other forms of participation (Gidey, 2017).

- **What is “public participation”?**

According to O’Faircheallaigh (2010:20), “public participation is any form of interaction between the government and corporate actors and the public that occurs as part of the EIA processes.” Andre, *et al.* (2006:1), define public participation in the context of environmental assessment as “the involvement of individuals and groups that are positively or negatively affected, or that are interested in, a proposed project, programme, plan or policy that is subject to decision-making process.” In contrast, Hughes (1998) perceives participation in EIA as a process which enables individuals or organisations affected by the proposed project to significantly influence decision-making. Furthermore, Glucker, *et al.* (2013) pointed out that there are even cases where public participation can also be informal when presented in the form of protest marches, media campaigns and petitions thereby resulting in the revision of the EIA procedures. Lately, informal type of public participation may involve litigation by those who have access and capacity to make use of legal means and the justice system.

Public participation is the process in which individuals, companies, authorities or groups that are affected by a proposed intervention participate in a prescribed process (Aucamp, 2009). In other words, public participation is a necessary process for consultation with different stakeholders who are affected by and/or interested in the project proposed for development. According to Glasson, *et al.* (2012), public participation is part of Environmental Impact Assessment (EIA) and is purposed at obtaining public input for decision-making about a proposed project. In fact, as different stakeholders come together, information is shared and as such this provides an opportunity to fill information gaps thus level the plains to facilitate common understanding of the issue at hand. Through public participation process, the information provided by the developer is tested and contested and as such a democratic principle of consultation is adhered to (Glasson, *et al.*, 2012). As a result, this becomes a session to solicit consent from those affected by the project and in the process public participation also fulfils the educative role to the general public

about environmental issues. Again, it is a legal requirement that the public be consulted before decision-making (Glasson, *et al.*, 2005).

According to Wasserman (2012), public participation in environmental impact assessment (EIA) is comprised of decision-making process, evaluation of potential impacts and stakeholders' involvement. This process involves active participation by the public with some influence over any modifications to the project and over the ultimate decision and this is influenced by different stakeholders of which some are the proponent (developer), public (local residents or pressure groups) and relevant competent authorities (Glasson, *et al.*, 2012). However, in trying to get hold of all potential interested and affected parties, the person conducting a public participation process must issue notices of invitation in accordance with applicable regulations (DEAT, 2006) and this has its own plethora of problems to contend with.

Again, with some academics asserting that environmental regulation has an observable negative impact on companies (Annandale & Taplin, 2003: 383), one would argue that the contention on the aspects of EIA is not limited to matters of definition but extends to the outcome of the process particularly when it concerns soliciting environmental authorisation from the competent authority. While some scholars indicate that public participation can in certain circumstances have negative consequences (Cooper & Elliot, 2000:342), O'Faircheallaigh (2010:19) points out that the overwhelming view is that it is highly desirable to find ways of making it more effective. The overview provided in this section illustrates that there is no consensus on what public participation in the context of environmental impact assessment means and involves. Empirical studies have shown that this does not only apply to the academic debate but is also reflected in EIA practice (Glucker, *et al.*, 2013). From the assertions above, it is evident that the emphasis in defining the process is not the same since this is influenced by the varying aims and objectives of the process itself. Other related factors also play a significant role in determining the meaning and practice of public participation process.

Quite importantly, the definitions and explanations provided through literature are indicative of the fact that there are conflicting and competing views and perspectives regarding the meaning of the concept public participation. In essence, public participation as a concept has been misconstrued, in theory and practice, to other concepts like public engagement, public involvement, community engagement, community involvement, community participation, stakeholder engagement and citizen involvement. These concepts have different meanings and implications to academics and practitioners alike (Gidey, 2017). In this regard, public participation as a process becomes too

complex to comprehend and confusing in terms of determining its scope thereof. With this diversity in conceptualisation, it can therefore be very much difficult for researchers to craft a universal definition fitting all systems and contexts in theory and practice. Furthermore, an effort by academics to break down the concept public participation into two and then define each term separate from the other has not helped the process either, Gidey (2017) concedes. Precisely, questions have been raised as to who are the public, who qualifies to participate, and so forth?

In that public participation is not a once-off event, anyone who may possibly contribute to the process must be given opportunity to voluntarily participate and as the process proceeds may voluntarily fall off through natural attrition. In this context the broad definition of public helps to represent the full range of interested and affected parties thus avert inherent ills associated with the narrow definition of the term like technical exclusivity (Gidey, 2017). With this broad definition of public in the context of EIA, a wide range of public concerns and interests are captured and addressed at the initial and very crucial stage of the process. Though the term public can be expressed in broad terms thus imply inclusivity, in practical terms participants may be determined on case-by-case basis due to variation in terms of size and nature of projects as well as difference in public interests, preferences and concerns (Gidey, 2017).

In EIA context, opportunities to capacitate and influence one another as groups and individuals are presented through deliberations and discussions made. However, this is made possible if the atmosphere is devoid of confrontations, intimidations, manipulations and coercion to make participation effective, genuine and authentic. In this regard, participation is thus grounded in the shared democratic ideals of equal opportunity to participate, equal access to information and genuine deliberation making it possible to reduce the extent to which members of the public view participation as a means to provide for their own narrow interests (Hourdequin, *et al.*, 2012).

In the wake of all definitions and assertions provided above, it is therefore apparent that when there is no consensus amongst academics, there is likely to be compounded problems amongst other stakeholders like consultants, agencies, organisations and the public in general. There is generally no agreement as to what public participation means especially when other concepts are brought into play, for example; public engagement, public involvement, community engagement, community involvement, community participation, stakeholder engagement, citizen involvement – amongst others (Gidey, 2017). In that there are so many contests about what public participation means and entails it therefore follows why the same concept is highly contested in practice. Nonetheless, there is a need for scholars to find a common ground regarding the lexical and operational definitions of the concept of public participation particularly in the context of EIA so as

to make the process uncontested in practice as well. However, having expounded on the definitions and explanations of the terms: public and participation, it is apparent that there cannot be a universal definition of public participation that suits every field of study and context, be it in academic circles or in practice.

For the purpose of this research study, *public participation in EIA context can therefore be defined as a process in which members of the public, in their various capacities, effectively participate through an open genuine deliberative interactive process to influence decision-making at all stages of the environmental impact assessment process.*

With the process of public participation being defined, it is therefore imperative to establish the reasons and purpose of why this process should be considered a significant component of EIA. This will help elucidate its necessity and in the process locate its relevance in EIA practice.

2.3.2 Rationales for public participation in EIA

Besides the fact that public participation is a contested concept, arguments have been raised about whether this process is a necessary component of EIA. While some scholars indicate that public participation can in certain circumstances have negative consequences (Cooper & Elliot, 2000:342), O'Faircheallaigh (2010:19) points out that the overwhelming view is that it is highly desirable to find ways of making it more effective. More importantly, the success of any EIA procedure largely depends on the level of public participation (O'Faircheallaigh, 2010). Accordingly, Glucker, *et al.* (2013) point out that the rationale for public participation in EIA includes the normative notions of influence in decision making, social learning and empowering individuals. This therefore is indicative of the fact that the rationale for public participation in EIA is varied and diversified. However, serious concerns have been raised where public participation has only been done for compliance as this undermines its rationale and renders it ineffective and undesirable. Rationales for public participation are varied and as such can be tabulated as follows:

Table 2.1 Rationales for public participation

Types of rationale	Explanations	References
Democratic perspective	This rationale ensures participation by all stakeholders and as such presents those with an opportunity to make inputs thus influence decision-making process.	Hasan, <i>et al.</i> , (2018).
Instrumental perspective	Through this perspective, public credibility is restored, conflicts diffused and decisions justified. Basically, through this perspective public involvement in development projects makes decision-making process acceptable.	Hourdequin, <i>et al.</i> , (2012).
Conflict resolution perspective	Public participation is hereby considered as a means of ensuring conflict resolution amongst the different stakeholders.	Schroeter, <i>et al.</i> , (2016); Sinclair and Diduck, (2017).
Empowerment perspective	This perspective is based on the notion that participation enables capacitation of the public in terms of skills, values, attitudes and knowledge necessary for the improved interaction with their environment.	Simpson and Basta, (2018).
Learning perspective	This rationale considers participation as a way of presenting an opportunity to learn about the environment. As the public gets involved in participation process, they become capacitated regarding environmental and other issues.	Simpson and Basta (2018).
Improved decision perspective	Through public participation, information is exchanged and the public is also given an opportunity to monitor the implementation of decisions made and to determine the effectiveness of the mitigation measures proposed.	Sinclair and Diduck (2017)
Political market perspective	In this perspective, the public and the politicians are regarded as major participants in the political market where public participation is a product. In this arena, politicians are expected to supply the goods whereas the public is in demand of such goods.	Sinclair and Diduck, (1995).

Procedural perspective	It is through this perspective that actions taken or decisions made are justified through participation. It is a procedural imperative that the public participates in decision-making process since it is a legislative requirement.	Simpson and Basta (2018).
Political perspective	Participation is viewed as a means to empower those who are marginalised and as such when the public is given an opportunity to participate, they become knowledgeable and empowered to also make meaningful inputs and contributions in the decision-making process.	De Santo (2016).
Political-philosophical perspective	This rationale is based on the principle of justice and fairness and as such is focussed on public interest and participation in the governing process.	Sinclair and Diduck, (1995).
Substantive perspective	The notion informing this perspective is that the public has valuable indigenous knowledge and experience which can help in the identification of problems and issues and as such help to provide applicable and suitable solutions thereof.	Glucker, <i>et al.</i> (2013).
Improved planning perspective	This view considers public participation as an integral component of the EIA process because it carries a notion that great public participation should be encouraged as it increases project efficiency.	Sinclair and Diduck, (1995); Wasserman, (2012).

In view of the assertions made above, it can be deduced that public participation can as such be used as a means to an end rather than an end in itself. Basically, public participation can be used to achieve certain set goals or objectives instead of being used to capacitate people for their own personal development. For instance, public participation can be done for compliance rather than focusing on ensuring that local community members become effective and deliberative citizens during discussions. In this regard, this research study establishes that what can be more rational and imperative is when public participation is considered as a goal in itself since this can make it conducted for its own good rather than it being used to achieve certain goals and objectives in the context of EIA. In practice, rationales for public participation are embrative of norms and standards called ethics which are hereunder discussed.

2.3.3 Ethical principles for public participation in EIA

Liberal democratic theory considers public participation as a linchpin meant to fulfil political ideals (Hourdequin, *et al.*, 2012) and yet can take a variety of forms (O’Faircheallaigh, 2010). A somewhat neglected facet of public participation is its evaluation in ethical terms as much focus is directed on its practical efficiency and at times this process is viewed merely as an instrument to achieve support for agency actions (Hourdequin, *et al.*, 2012). In fact, the process of public participation is considered as a means to an end since it is basically purposed at achieving materialistic value like “educating and informing the public”. From an ethical perspective, public participation process can be guided by set principles which eventually help in terms of improving existing EIA participatory processes.

- **Equal opportunity to participate**

The buzz word in modern democratic circles is “equality” and in this context this implies equal opportunity to participate by all members of the public. This should be inclusive of those members of the public who are directly affected by the project as well as those who are interested in the development of such a project. Their interests or concerns should not be limited to environmental or socio-economic impacts of the project but should be broad-based to include local and general public. However, in practice this theoretical notion of inclusivity has not been realised. In certain circumstances, the principle of equal opportunity is violated by privileging opportunities for some individuals or groups while denying such opportunities to others (Hourdequin, *et al.*, 2012). This violation of right can at times be purposeful or by default owing to the nature and approach used during public participation. For instance, certain development projects like building of residential area can draw massive interest from the public whereas participation concerning change in policy regarding international trade may be foreign to the illiterate people in rural areas. However, the principle of equal opportunity to participate entails opportunity to attend meetings, public hearings and workshops. In a democratic setup, public participation ensures equity wherein the public will be afforded an opportunity to raise their concerns, fears and interests regarding the impacts (direct or perceived) associated with the proposed development project (Hourdequin, *et al.*, 2012).

- **Equal access to information**

The mode of communication regarding the information available for public consumption can be a very pivotal determining factor about the principle of equal access to information. Factors such as the language used, technical nature of the information presented and sources and means of presentation can determine the level of equality in accessing the information provided. For

instance, members of the public may have their right to access to information violated by the EAP who presents the project proposal using technical jargons foreign to the local community which may be dominated by illiterate people. According to Hourdequin, *et al.*, (2012), this principle extends to citizens right to know which laws have been passed and whether the execution of such laws is following the legislative intent. Precisely, an informed public ensures successful democracy and participation. Access to information should go beyond making information available by ensuring that the participants are accordingly capacitated to effectively make use of such information particularly in the decision-making process. In practice, without such requisite capacitation, the EAPs will always have an upper hand in terms of deliberations particularly when they are pitted against the ordinary and yet illiterate members of the public. Basically, to have access to information and yet cannot use it in the deliberative process of public participation may be equated to denying the public the right to engage on an “equal” footing with the experts. Such situations exacerbate a lay-expert tension and as such have a potential to generate mistrust and resentment (Hourdequin, *et al.*, 2012).

- **Genuine deliberations**

Public participation without genuine deliberation is rendered meaningless and ineffective (Hourdequin, *et al.*, 2012). For instance, public participation can assume a passive form like public notice (Jiang, *et al.*, 2016) and as such this form of communication cannot meet the requirement of being deliberative. In other instances, studies of successful collaboration have shown that public decisions often require in-depth conversations. In the process, participants must as well engage in perspectives and views different from their own (Hourdequin, *et al.*, 2012). In essence, genuine deliberations should foster dialogues which are thoughtful whereby participants think beyond their own individual preferences and interests and at some point even change their initial positions and assume new ones which are rationally and pragmatically thought out. Basically, thoughtful and deliberative engagements amongst participants help in terms of evaluating what has informed their initial stance regarding participants’ perspectives. For instance, when participants are actively and rigorously engaged through interactive form of participation such as workshops and mediation, new thought patterns are developed and new stance assumed (Jiang, *et al.*, 2016). In the process of deliberative dialogue, new information and thought patterns may be assimilated with the initial reasoning and a newly informed decision taken. Through this process, misinformed and ill-conceived individual interests are done away with and this helps improve the process of public participation as the participants become more engaged and involved in constructive deliberations.

- **Shared commitment**

An ethically-sound process involves more than following a protocol (Hourdequin, *et al.*, 2012) and as such EAPs and the participants must develop a sound working relationship based on mutual trust. When the EAPs attentively listen and honestly consider inputs by the public, different views and perspectives by the participants can be easily reconciled due to mutual trust developed. Without shared commitment, EAPs and the public may grow to regard one another with distrust and unwillingness to consider alternative perspectives (Hourdequin, *et al.*, 2012). Without trust, public participation is likely to degenerate into chaotic meetings where contending individuals and/or groups may talk past one another and in the process become even more divergent in their stances. This may lead to litigations or even protests thus derailing the whole process and its objectives. Accordingly, Hourdequin, *et al.*, (2012) warn that if EAPs treat participation as a formality, they undermine both its intrinsic value to liberal democracy and its instrumental value of building public support for the actions taken.

In this regard, the level of commitment in the process between the EAPs and the public can play a pivotal role in determining the provisioning of equal opportunity to participate, provisioning of required information and engagement in genuine deliberation. Though members of the community may not necessarily participate at equal footing with other stakeholders, their right to have a voice should not be denied through the use of technical language that they do not understand. In this regard, public participation facilitators should ensure that there is translation of technical reports to the local language understandable by community members. This will help in terms of their understanding of the proceedings as well as encourage deliberative discussions in a more active manner like workshops. However, to ensure that public participation is effective and considered being a necessary tool for public participation, ethical issues elucidated herein cannot be ignored. In essence, effective public participation in EIA can be made possible with genuine consideration of ethical issues like effective deliberation and matters about equality. Whilst this discussion seems to be mainly theoretically based, there is a need to bridge the gap between theory and practice of public participation process in EIA practice.

2.3.4 From theory to practice: tensions in public participation process

Considering the stipulated ethical principles in practice, tensions may arise as EAPs and the public try to be consistent with the procedure and as such public participation processes depend on the experience, attentiveness and judgement of the role-players to fill the gaps between theory and practice (Hourdequin, *et al.*, 2012). Put rather differently, the ethical principles applicable in

public participation process do not always resemble the same sentiments in theory and practice alike. This research study has found that public participation as a process is theoretically sound and plausible but found sorely wanting on how this process can be made pragmatically effective in practice. Gaps between theory and practice need to be identified and addressed.

- **Processes versus outcomes**

Studies have shown more emphasis that has been made on procedural issues regarding public participation process whereas it is largely the outcomes of this process that determine the quality of life and the integrity of the ecological systems and as such both the processes and the outcomes deserve ethical scrutiny (Hourdequin, *et al.*, 2012). In essence, an ethically plausible process usually leads to pragmatic outcomes. In this regard the end justifies the means because even poorly conducted public participation process may even yield good outcomes. Implicit with this assertion is that well-designed processes do not always yield to desirable results. Ethically, the good of the process is not determined by its outcomes but by its intrinsic value. Certain processes are done for the good of themselves and not necessarily for their results. For instance, even a popular decision by the public during participation cannot be considered by the EAPs for implementation if it contradicts the applicable legislation. In practice, it does not follow that a pristine wetland must give way for the construction of a shopping mall since the latter will provide socio-economic emancipation of the destitute masses in the local area. In the wake of this, Hourdequin, *et al.*, (2012), asserts that the EAP should consider long-term consequences of environmental impact assessments and the effects of the decisions made on all citizens and not necessarily on those who participated.

- **Local versus national interests**

In the framework provided, equal opportunity to participate is one of the ethical principles for public participation. However, this can be an issue for debate particularly when one considers large democratic set up like South Africa. Should people living in the Western Cape have an equal influence in the management and activities around Lake Fundudzi, for instance? In a theoretical perspective, people in the Western Cape have equal opportunity to participate regarding issues around Lake Fundudzi with people at Tshiavha in the Vhembe District of Limpopo Province. In the wake of this, providing equal opportunity for participation to all citizens of South Africa regardless of the location is virtually practically impossible. Accordingly, Hourdequin, *et al.*, (2012) conclude that for both ethical and practical reasons, special effort should be made to consider the views and interests of those whose health and livelihoods will be most impacted by the course of

action taken. Nonetheless, an ethically pragmatic participation process should amicably resolve the local versus national interest tension as part of decision-making.

- **Individual interests versus the common good**

Provisions within the legislative framework are inclusive of the right to an environment that is healthy and as such this can provide a fertile ground for contending interests between individuals and the public in general (Hourdequin, *et al.*, 2012). In this regard, EAPs may at times make decisions or choices which are not consistent with the interest of those who are participating in the project. For instance, some people may fail to attend public participation meetings due to work or school commitments and as such their inputs or concerns will not be heard or considered. Also, a favoured recreational use of the public lands may be restricted if it undermines the overall sustainability of the land for all the people (Hourdequin, *et al.*, 2012). Basically, it is through deliberative process that members of the public may be encouraged to think beyond their individual selfish ambitions and interests thus take the rights and interests of others into account. While individual rights should be considered, expectations to satisfy each person's preferences cannot be realistic and as such EAPs should be aware of their duty to serve all citizens even for those who do not actively participate in the decision-making process (Hourdequin, *et al.*, 2012). Though consideration should be made in decision-making process that the ultimate good for all is attained, the process should be both procedurally and ethically compliant with applicable principles.

- **Experts versus laypeople**

Public participation meetings are usually fertile grounds for tensions between experts and laypeople as their level and rigour of participation is determined by their level of knowledge in the aspects or issues discussed. Accordingly, environmental impact assessments involve a large degree of technical analysis and predictions unfamiliar to the laypeople (Hourdequin, *et al.*, 2012). However, consideration should be made that despite their lack of technical know-how regarding EIA, laypeople are indispensable in the public participation process in that they provide undocumented indigenous knowledge needed to compliment the technical expertise provided by scientists. In the light of this, the researcher therefore advises that experts like engineers, technicians, ecologists and hydrologists, for example, help capacitate the public with basic environmental knowledge so that they can be effectively involved in deliberative dialogues. However, this should be done in an environment that is accommodative of both the experts and laypeople as colleagues rather than contenders or adversaries (Hourdequin, *et al.*, 2012).

In view of these assertions, it is therefore apparent that the manner in which public participation process should be conducted must be considerate of the factors based and informed by local realities. Factors such as process outcomes and public interest are very crucial in determining the success or failure of the process in practice. This, therefore, implies that the difference in terms of communities' awareness regarding EIA issues and their exposure to public participation process can determine the manner in which this process must be conducted in practice. In this regard, it is therefore implicit of the fact that the manner in which public participation must be conducted should be considerate of the contextual factors at local areas. This means that there cannot be a universal public participation design that can fit and be workable for every public participation in every locality. Though there can be issues of contention and deliberations concerning public participation in theory and practice, the process itself is an indispensable component of EIA procedure for a variety of reasons as discussed below.

2.3.5 Merits, importance and benefits of public participation

Public participation has been declared by several researchers and authors as being a necessary process for a variety of reasons as presented in the table below.

Table 2.2 Merits, importance and benefits of public participation

Merits/importance/benefits	Explanations	References
Quality decision-making	Public participation helps planners acquire local knowledge on specific issues not discernible in general surveys and it is through this platform that shared understanding of complex issues is created amongst different stakeholders.	Rasch (2019)
Capacitation	During public participation various stakeholders exchange ideas and in the process participants develop values, skills and knowledge thereby improving on the way they communicate and tackle personal issues and problems.	Simpson and Basta (2018)
Social responsiveness	Public participation helps those in authority to make decisions that respond to the needs of the community since the public is involved with	Sinclair and Diduck, (1995); Drazkiewicz, <i>et al.</i> , (2015).

	the dealing of issues that directly concern them.	
Accountability and governance	Decision-makers are held responsible of their decisions since interested and affected parties have the right to challenge the final decision through appeal process and as such this contributes to good governance and accountability.	Sinclair and Diduck, (2017).
Sense of belonging	Through public participation, community needs and values become embedded within the decisions made. Precisely, public participation increases chances for project acceptance and improvement on the level of ownership.	Hughes (1998).
Conflict resolution	Public participation serves as a means of ensuring conflict resolution amongst interested and affected parties and in the process helps regarding assimilation of the final decision. Basically, conflicting and competing public interests and preferences are effectively dealt with and consensus reached without being confrontational.	Schroeter, <i>et al.</i> , (2016), Sinclair and Diduck, (2017).
Strengthening of democratic principle	Through public participation, democratic ideas are favoured as they present an opportunity for those who are affected by the decision to make inputs.	Hasan, <i>et al.</i> , (2018)
Government responsiveness	Through public participation, the applicant and competent authority are given an opportunity to perceive and understand fears, interests, values and concerns of the public and as such consensus is quickly reached and better decisions made.	Mantzara (1998)
Political stability	Public participation can serve as a good platform for the government to be popular amongst the electorate and as such social and political stability is attained.	De Santo (2016)
Socio-economic benefits	Public participation in EIA enhances economically sustainable development and in	Roos, <i>et al.</i> , (2020),

	the process avoids civil or criminal liabilities costs through compliance and enforcement.	
Development of locally adjusted solutions	In that public participation is a two-way communication process, this creates a platform whereby environmentally relevant local knowledge and local perspectives are incorporated in decision-making process. This helps also in generating appropriate and local context environmentally beneficial solutions.	Drazkiewicz, <i>et al.</i> , (2015)
Ecosystem service	Public participation in EIA encourages development that prevents the breakdown of ecosystem by improving environmental protection and mitigates adverse environmental impacts.	Roos, <i>et al.</i> , (2020).

In practice, the benefits of public participation process in EIA system seem to run both horizontally and vertically within the spectrum. Horizontally, thus among the different stakeholders and vertically thus up and down the bureaucratic pyramid. Proponents, local communities and the competent authority all benefit in one way or the other if the process is conducted well in accordance with the set criteria. According to Mubanga and Kwarteng (2020), public participation protects the proponents from a range of liabilities and in the process environmental authorisation is solicited thus also maintaining community acceptance and for better project management which eventually builds the right image for the project. On the other hand communities benefit in terms of knowledge acquisition and in the process they are provided with a platform to air their views and concerns on the real dangers of the project. Finally, for the competent authority public participation ensures compliance, reduces uncertainty, and improves decision-making and EIA process.

Though the benefits and importance of public participation are varied, their level of significance cannot be the same for every development project. However, in this regard the opportunity presented by this process makes it an indispensable tool in the EIA procedure in that local communities become capacitated in terms of skills, knowledge and values and in the process potential volatile local situations are smothered before they escalate to uncontrollable levels which can undermine the objectives of this process. Also with this process, everyone is provided with an opportunity to participate in terms of making inputs and raising concerns where necessary and this is what public participation is meant for. With a well conducted process, goals for

environmental conservation and protection are realised. In essence, the issue of social and environmental justice is enhanced and in the process sustainable development goals are attained. However, in practice, public participation just like other processes has areas of concern which need to be identified and addressed.

2.3.6 Barriers, challenges and constraints associated with public participation

Even though public participation is considered mandatory, the same is not without challenges and obstacles which limit its effectiveness thereof. As pointed out by Sinclair and Diduck (2016), despite all efforts to make public participation more meaningful, in practice, the process has been found to be sorely wanting. Also in practice, the process of public participation has not been spared criticism by practitioners. Proponents consider this process as expensive and time-consuming (Aucamp, 2009, Morrison-Saunders, *et al.*, 2015) whereas specialists, researchers and governments questioned its value and benefits (Retief, 2010). In some instances, it has been noticed that public participation is not a panacea to address all issues of conflicts and as such does not necessarily bring about positive effects (Yao, *et al.*, 2020) all the time.

- **Administrative process and ethical flaws:**

Of serious concern and quite unethical a practice, as it is implicit in most assertions, is that practitioners consider public participation as a means to an end and not an end in itself. In the wake of this, Lane, *et al.* (2003:97), warn that “if the relevant information is available from other sources as being provided by earlier EIA of similar project in the same area, EIA practitioners find no reason to conduct public participation again.” This implies that EIA practitioners shun public participation process particularly due to its time-consuming nature and a need for public involvement in decision-making which may be unwelcome due to inherent challenges. Apparently, when the underlying rationale for conducting public participation is to gain access to valuable information, the value of the process in question tends to be superficial.

“Public involvement may in some cases be a genuine participatory exercise and in other cases just public manipulation which may result in the hidden costs of the projects being passed on to the affected communities” (Taylor, *et al.*, 2004). This assertion has been echoed by O’Faircheallaigh (2010:21) in pointing out that “proponents wish their projects approved and as a result exaggerate potential projects benefits and thereby downplay the negative impacts or risks thereof.” As viewed by Rossouw, *et al.* (2003: 203), “there is a tendency among practitioners to only meet minimum requirements of the law and preference among developers to appoint

consultants who undertake EIAs in the shortest time and at the lowest cost.” Precisely, lack of objectivity by practitioners appears to be evidence of lobbying for a particular point of view, usually in favour of development (Sandham & Pretorius, 2008:237). Implicit with these assertions is that, the value of public participation is undermined by those who the administration and the implementation of the process is bestowed upon. Worse of, is when EIA practitioners turn public participation gatherings into “brainwashing sessions”.

Also of notable concern is the issue of conflicting mandates by different competent authorities. One such example is the authorisation of prospecting and mining activities in South Africa where the Department of Mineral Resources and Energy (DMRE) is the decision-making authority for mining related EIAs, with the concern being the dual role of DMRE as both facilitator and promoter of mineral development and protector of the environment (Humby, 2015). This issue of dual and yet conflicting mandates by DMRE presents a serious administrative flaw in that sound environmental governance is compromised. In this regard, the instrumental value of public participation process is also undermined. Furthermore, in the wake of what they found out in their studies regarding EIA benefits in a sustainable development context in South Africa, Roos, *et al.*, (2020) recommended that compliance, monitoring and enforcement need to be improved.

One other problematic area in terms of public participation and the EIA process is the lack of objectivity by the practitioners. With reference to the South African EIA guidelines, an environmental assessment practitioner should be independent of the developer or applicant (DEA, 2010). In practice, however, since the practitioner is paid by the developer, they will most likely have no employment if their EIRs often recommend the “do nothing” option (Sandham & Pretorius, 2008:238). As a result, practitioners either avoid EIAs which are likely to attract unfavourable verdicts or else get involved in unethical practices with some aspects of the EIA procedure – public participation included. Put in simple terms by Rossouw, *et al.* (2003), environmental practitioners regard developers, by whom they are paid, as their sole clients. As a result they seldom take values and concerns of affected communities into account. O’Faircheallaigh (2010:24) laments that with these unethical practices, “certain public participations turn to be tokenistic in that they are done solely for administrative purpose.”

As noted by Lawrence (2003), “in a case involving impact assessment of a planned oil shale project on fruit farmers in Queensland, Australia; the proponent identified a range of likely impacts but offered no acceptable solutions to the fruit farmers.” Explicit with this scenario is that environmental practitioners may play a rather doggy role by manipulating the EIA process. To be quite precise, practitioners may at times classify certain information as being sensitive; knowing

that full disclosure thereof may invite resistance from I&APs. This raises concerns in terms of moral obligation on the side of EIA practitioners.

- **Nature and composition of I&APs**

The nature and composition as well as the level of education and the attitude of the I&APs can be very crucial in determining the outcome of public participation process. Du Pisani and Sandham (2006:719) claim that “at certain public participation meetings, there is a complete lack of public interest in the EIA process and this can be attributed to poverty and low levels of education.” And the fact that the environmental agenda is seen in some circles as an obstruction to wealth creation and poverty eradication can as well be attributed to lack of public interest to EIA process (Kruger & Chapman, 2005). In the wake of the fact that the general public is considered lacking in terms of capacity to contribute during deliberations, Roos, *et al.*, (2020) concede that public participation process is generally perceived as being ineffective since the contributions from the public are poor and their level of involvement is low. However, this can be attributed to lack of empowerment of the general public. Furthermore, Du Pisani and Sandham (2006:719), point out that “little understanding of the complexity and heterogeneity of the society by developers, consultants and planners can be problematic.” This is usually evident when the impacts of development benefit or disadvantage certain sections of the society as this creates disharmony. This eventually undermines purposes and values of EIA processes – public participation included. Hartley and Wood (2005:328) concede that when people sense that something is a “done deal”, they stop participating. “In marginalised groups, the powerless are the least likely to participate in EIA process” (Esteves & Vanclay, 2009:141). This unfortunate but realistic situation does not augur well for the good of EIA process as well as the resultant outcome.

Also of concern is the issue of “civil society”. Accordingly, Hamman, *et al.* (2000), point out that the issue of “civil society” is a problematic concept in South Africa where many members of the public are not properly educated about their rights in terms of the Constitution and NEMA. “One should think that the emphasis of public participation in South African EIA process ought to provide the necessary checks and balances, but unfortunately more deprived communities, who are keen for more job opportunities are not always in a position to resist development projects which may eventually have more negative than positive impacts” (Du Pisani & Sandham, 2006:717). Basically, unlearned communities, particularly in rural areas, have a perception that public participation is meant to inform and consult them about the proposed development projects and as such issues concerning environmental impacts are not of serious concern if they (public) receive the benefits associated with such developments or that their expectations, interests and

concerns are addressed. In this regard, Hasan, *et al.* (2018) concede that participatory practice in EIA faces barriers at both individual and institutional level. However, in the context when all these factors are at play, the situation can become more complicated and as such goals and objectives of public participation can be undermined.

- **Political influence and conflicting interests**

Another area of concern is the issue of dominance by interest or pressure groups during public participation. As pointed out by Sinclair and Diduck (2017), public meetings usually turn out to be venues for interest group representatives to dominate discussions instead of them being arenas for broader engagement and expression of preferences of the public. What is implicit of this scenario is that preferences of the public eventually fall off the way during deliberations as representatives of interest groups focus on their own agendas. “On the extreme” as Du Pisani and Sandham (2006:718) point out, “NGOs and CBOs may use public participation to pursue other agendas and as such hijack the EIA process.” According to Hughes (1998), it has been found that decision-makers and practitioners in sub-Saharan Africa have failed within the EIA process to ensure that public participation amongst various stakeholders is genuine. This, however, is also compounded by different expectations from different stakeholders: the public wants a process that values their inputs, developers want a short and yet cheap process, consultants want a smooth and yet effective process whereas the competent authority wants an effective and efficient process (Rossouw, *et al.*, 2003). When all these varied and polarised expectations need to be part on one process, it is obvious that the objectives of such a process will be virtually impossible to realise and achieve in practice.

The community, as an integral component of I&APs, can be diversified in terms of political orientation. In the wake of this, the process of public participation can be more complicated when considering the low level of political tolerance in South Africa, more particularly if sections of the community are polarised. Put in simple terms, promoting meaningful public participation in a society that is polarised by political orientation is a task too tedious to do. This simply implies that objectives and values of public participation for a sound and acceptable EIA process will be undermined. In politically volatile society, public participation process can turn out to be the battlefield for political opponents, thereby marginalising sections of the society. “In Australia, local Aboriginal people have little influence and control over environmental decision-making” (Dale and Lane, 1994:264).

Furthermore, it should be noted as O’Faircheallaigh (2010:22) points out, that either the proponent or I&APs may lobby for their preferred outcomes by participating in the EIA process and subsequently seeking to influence government decision. In the light of this, biasness cannot be easily eradicated in terms of decision-making by the competent authority where the lobbyists have political connection with those in authority. Accordingly, where EIA is being conducted in relation to siting of undesirable projects, public participation may simply lead to resistance by community members (O’Faircheallaigh, 2010:22). In the light of this, it follows that where EIA is being conducted in relation to the siting of a desirable project like a shopping mall, for example, public participation may draw much interest and collaboration even by political opponents thereby pushing for a positive record of decision by the competent authority even if it is on the expense of the environment.

Another crucial point is that, statements by politicians also leave much to be desired. As pointed out by Sandham and Pretorius (2008:238), “recent comments by a cabinet minister blaming EIA for delays in construction, with particular reference to the fact that housing provision cannot wait for *butterfly studies*” - is a cause of concern. Statements of this nature, in particular, by people of such high regard cannot be strong incentives for quality EIA reports. According to Sandham and Pretorius (2008:238), “EIA practice has suffered from political disregard and this highlights the paradoxical nature of EIA in South Africa where the same political system that delivered a comprehensive EIA law, also implemented policies that act against optimal roll-out of EIA system.” Concerns have as well been raised by officials from provincial departments of environmental affairs responsible for EIA reviews and decision-making that political interference is a major obstacle (Duthie, 2001).

Though public participation cannot be considered a solution for all environmental problems and issues associated with development projects, its benefits and importance outweigh its constraints and challenges. It is quite unimaginable that development projects be carried out in the community without their involvement and in this regard public participation becomes a necessary instrument through which members of the community can make inputs and voice their concerns. Precisely, not involving community members concerning development projects which may have negative impacts on their environment and well-being in the name of avoiding costly and tedious exercise of conducting public participation may even lead to even costlier repercussions like protests and litigations. These can also cause unnecessary delays and at times even abandonment of some development projects. However, public participation should not be done at the level of informing or just consulting the community since these levels do not provide opportunity for deliberative

engagements and exchange of ideas. As purported by this research study, public participation should be meaningful and effective and this is possible through open deliberative discussions which can empower community members in terms of acquisition of requisite skills and knowledge of the EIA procedure and issues of environmental protection. With such identified barriers, challenges and constraints associated with public participation, this cannot be a reason that this process is not a necessary component of the EIA procedure. Solutions have to be solicited and the process enhances in terms of its application, hence a need to discuss about its role in conflict management.

2.2.7 Conflict management during stakeholder interaction

There has been a variety of conflicts amongst various stakeholders particularly over the siting of development projects which are perceived to have environmental and financial impacts on the local communities (Li, *et al.*, 2018). Challenges and conflicts of this nature usually delay or derail the implementation of the development projects, let alone the process of public participation for EIA. Basically, contentions may even arise when it comes to the issue of who should be the beneficiaries of the proposed development project due to political meddling or interference (Sun, *et al.*, 2016). Put rather differently, development projects may have social, economic and political consequences which may create a platform to manifest their impacts during public participation. In the wake of this, it therefore requires that such conflicts be managed since they may have undesirable impacts on the process of public participation.

- **Political conflict management**

General observations made with regard to the development of public projects (by the government) is that the ruling political organisation tend to prioritise economic growth on the expense of the environment usually with the aim of impressing the electorate. As a result, public participation becomes a platform to generate conflicts instead of solving them. For instance, in some documented cases, fake public participation data has been inserted into EIA reports and literature has it that most of the work involves copying and pasting contents from other reports (Johnson, 2020). In the wake of this, conflicts are likely to be festered instead of being effectively dealt with. Furthermore, decision-making is inherently political (Enriquez-de-Salamanca, 2021) despite inputs by various stakeholders, in particular the local community which is likely to be directly impacted by the proposed development. As noted by Enriquez-de-Salamanca (2021), when developers are government authorities, EIA agency may have difficulty in rejecting a project proposed by another government department even if it is environmentally unacceptable. Again,

EIA agencies are sometimes hostile to small private developers while they are complicit with large public or private developers.

The political influence on the competent authority to favour “development” on the expense of “sustainability” can be minimised by approaching EIA from the point of view of administrative justice which entails lawfulness, procedural fairness and reasonableness thus empowering legal and procedural framework (Retief, *et al.*, 2020). Secondly, there should be minimisation of politicisation of EIA agency by making them independent (Enriquez-de-Salamanca, 2021). However, despite the fact that it is virtually impossible that public participation in EIA can be devoid of politics, it should therefore be protected from political manipulation so that it should not lose its purpose and value.

- **Social conflict management**

Conflicts and challenges experienced during stakeholders’ interaction are usually as a result of incompatible or competing interests and goals concerning the development project proposed and in most instances this kind of situation is usually unavoidable – hence a need to find ways and means to resolve or minimise their impacts. Despite prior agreements that can be made in preparation for public participation, stakeholders’ interests may remain diverse and at times even more polarised as determined by the manner in which public participation is conducted. In the wake of all these, the status quo cannot remain the same. Relevant and effective strategies and approaches have to be found in order to effect sound dispute resolution. For instance, Peltonen and Sairinen (2010) suggest that mediation as a means for social dispute resolution need to be implemented since it requires integration of expert and lay knowledge so as to find agreements which are practicable.

Another way of resolving social conflicts is through negotiations and mediation processes which tend to be advantageous by allowing for the direct involvement of those affected by the decisions unlike legal processes which are usually expensive and frustrating (Peltonen & Sairinen, 2010). More importantly, negotiated settlements usually avoid costs associated with the litigation proceedings. Also of note is that as contending stakeholders negotiate, compromises are made and in the process common grounds are found wherein competing interests and goals are reconciled. In the process, relationships are established and common approaches agreed upon thereby finding effective and lasting solutions. However, it should be noted that, though seemingly flexible and adaptable an approach in terms of conflict resolution, mediation may not succeed where there are vast social imbalances in terms of power (Peltonen & Sairinen, 2010).

- **Economic conflict management**

According to Sun, *et al.*, (2016) different development projects affect different stakeholders differently depending on their nature and magnitude as well as their perceived impacts. From a theoretical perspective, conflicts and disputes arising during stakeholders' interaction as part of public participation for EIA can be categorised as being political, social and economic but in practice, all these categories are interactive and as such cannot be mutually exclusive of the other. In essence, means and approaches to resolve conflicts and disputes emanating as a result of stakeholders' interaction during public participation are virtually the same. The difference, however, can be at what level and through which strategy is a particular conflict resolved. For instance, political conflicts may require political expertise to resolve whereas economic conflicts may require economic expertise during negotiated settlements when they are resolved.

Public participation, transparency and EIA are the possible strategies that can reduce conflicts (Sun, *et al.*, 2016). Transparency during public participation can be a very effective strategy in ensuring that conflicts are effectively managed since it gives all participants, contending stakeholders included, access to information about development which can have economic impacts on the stakeholders and the local community as well. However, in practice the available economic opportunity may not be necessarily accessible to everyone. For instance, despite the fact that jobs may be available for members of the community, it is not everyone who has the requisite expertise for employment that can get employed (Sun, *et al.*, 2016). Furthermore, the issue of age (youth) or gender may be pivotal in determining who should be employed. The fact that not everyone will qualify for employment can be a cause of economic and political concern. Also of note is when the proposed development is government-owned and not private. In this regard, service providers and contractors may compete for business opportunities available and as such this may lead to conflicts or disputes which at times may delay or halt the entire development process (Sun, *et al.*, 2016). As is with other cases in reference, negotiated settlement instead of litigation process can be an effective strategy to resolve the conflict. Mediation can be helpful since it provides opportunity for parties involved in conflict to exchange their views and perceptions and in the process their right to be heard is honoured and at the same time a negotiated amicable solution reached (Sun, *et al.*, 2016).

With the South African society being known to be politically polarised, Vhembe district is not spared as well. Many community meetings have been observed to depict the same polarisation when it comes to issues of discussion. The same observation has been made when it comes to

issues requiring deliberations during public participation meetings. For instance, the observation made during one of the public meetings for Tshakamate resort development was that deliberations even went overboard where community members accused the developer for getting preferential treatment of being allocated the land for development owing to his political affiliation to a certain party. Despite all the different types of conflicts encountered during public participation meetings of the development projects in reference, efforts were made to solicit solutions and one of the them was mediation by some community structures like civic organisation. Where public meetings for EIA lead to conflicts due to contending and competing interests and preferences amongst community members, efforts to resolve them are critically important because the issue of social and environmental justice cannot be ignored if sustainable development goals are a priority. However, problems and issues in public participation are not only limited to managing arising conflicts. Incidents of manipulation also pose a challenging situation during public participation as discussed below.

2.3.8 Manipulation possibilities in EIA public participation

Many participants have raised concerns regarding the practice of having projects proponents alone conducting public participation events and reporting the views of the public. This has been considered as being highly problematic due to the perception of biasness (Sinclair & Diduck, 2017). Implicit with this assertion is that this practice can seriously compromise the credibility of public participation and eventually the whole EIA process. According to Enriquez-de-Salamanca (2018) EIA is a process where various stakeholders take part with different interests and expertise which may lead to intentional or unintentional bias in their opinions but the line between bias and manipulation may be very unclear. In EIA, manipulation involves premeditated bias with ulterior interests or motives purposed at influencing decisions for self-benefit and this includes intent to deceive. Though manipulation can manifests itself in different forms, it is therefore imperative that practitioners be objective by avoiding biasness and manipulation and as such high ethical and professional standards should be upheld. Enriquez-de-Salamanca (2018) has pointed out several ways through which various stakeholders may manipulate public participation process in EIAs:

Table 2.3 Manipulation possibilities in EIA public participation

Manipulation agents	Explanations	References
Developers	In trying to solicit favourable consideration, developers have a tendency to manipulate public participation process through exaggeration of project's benefits or hiding data when designing the project. At times alternatives are excluded or fake alternatives are proposed.	Enriquez-de-Salamanca (2018).
EIA consultants	In that consultants work for the developers, they are therefore likely to be conflicted between drafting a rigorous EIR (favourable or unfavourable) and satisfying their clients. As such EIA consultants may hide information or provide false alternatives.	Enriquez-de-Salamanca (2018)
General public	Mobilised groups may monopolise public response owing to the fact that the general public is handicapped by illiteracy and other associated factors.	Fischer (2016)
Interested and affected parties	Certain lobby groups may emerge during projects of high interest and in the process sway public participation as influenced by the funding source.	Enriquez-de-Salamanca (2018)
EIA agencies/evaluators	Sometimes EIA agencies delay the process if they are opposing the project by making successive requests for additional information to the developer which at times is practically impossible to produce.	Enriquez-de-Salamanca (2018)
Competent authorities	If the competent authority is somehow inclined to having the project successful for whatever reason, bias may be inherent. This is very likely in instances where the competent authority is adjudicating the EIA process for the government department.	Enriquez-de-Salamanca (2018)
Politicians	During public participation meetings, a decision may be arrived at whilst being highly influenced by political pressure in order to	Enriquez-de-Salamanca (2018)

	improve government's image and in the process EIA procedure is manipulated.	
Media	Media platform is very essential for the dissemination of public information and because they are effectively for sale for the highest bidder, their relationship with the developer may determine how they publicise the project's EIA process and public participation in particular.	Enriquez-de-Salamanca (2018)
Academics	Academics, just like other stakeholders are prone to bias. Sometimes companies pay off experts in order to use their names in their EIR. Furthermore, academic-business research agreements may generate sympathies towards developers who fund the research.	Williams and Dupuy, (2017).

Despite the fact that there seems to be a very fine line of divide between bias and manipulation, all stakeholders have a moral obligation to make EIA rigorous and credible by ensuring that public participation process is plausible, authentic and honest. Though stakeholders' level of involvement in public participation is diversified due to the varied level of interest, bias is therefore unavoidable but practitioners should try to avoid, understand and manage it properly and effectively in EIA processes, in particular public participation. Manipulation should, however, be avoided and excluded at all costs since it is unacceptable as it distorts the truth due to spurious interests (Enriquez-de-Salamanca, 2018). With issues pertaining to manipulation in public participation having being discussed, there is then a need to locate the process relevance in the context of EIA and this is hereby presented in the discussion below.

2.4 Establishing the relevance of public participation process in EIA context

Owing to many development activities executed, as people try to fend for their needs and find means for survival, the environment has suffered a lot and as such this called for environmental management which then played a critical role to ensure that there is sustainable development. In order to achieve this critical goal, Environmental Impact Assessment (EIA) is one amongst other environmental management instruments developed in order to prevent and mitigate adverse and harmful impacts of development activities on the environment and the earth's systems.

Accordingly, EIA is a systematic framework meant to identify, predict and evaluate environmental effects of proposed projects (UNEP, 2002). In essence, this instrument is meant to provide credible and authentic information used for decision-making regarding the adjudication of the application forwarded to the competent authority with the purpose of ensuring sustainable development. In this regard, EIA as a management tool provides opportunities for participation by those affected and interested in the proposed development activity. It is through this process that members of the local community, including those interested and affected by the proposed development activity, are informed, involved or engaged about the proposed development and as such their concerns, fears and inputs are addressed. However, the involvement of different stakeholders and local community members, should be done within applicable legislative framework and regulations. In this regard, guidelines have been developed in order to help the proponents or applicants, registered interested and affected parties (RI&APs) and environmental assessment practitioners to understand their obligations and responsibilities with regard to undertaking public participation process comprehensively (DEA, 2017).

As observed in Australia, public participation as a legal requirement was perceived and implemented in different ways yet to varying degrees of success. For instance, when public participation is considered as an end and not a means to an end, powers for decision-making should be devolved to the local level thus allow local communities to decide about affairs of consequence to them (Buchy & Hoverman, 2000). Implicit with this assertion is that where local communities are represented by voted or chosen individuals issues of their concern are likely to be misrepresented thus weakening their arguments. However, the issue of representation during public participation is common in areas where members of the local communities are marginalised, disadvantaged, incapacitated and are without a voice. Accordingly, the greater the control by outsiders (e.g. those outside the local community and the professionals) the less local communities tend to be involved at critical decision-making stages (Pretty, 1995).

Despite the fact that not all community members have capacity to engage in meaningful deliberations about their concerns and make plausible decisions about issues that affect them or are of their interest, public participation as a process should be fully participative thus offer them opportunity to learn and acquire necessary skills and knowledge to help them in future decision-making opportunities. Provided within environmental legislation is that all people must be given opportunity to develop skills and capacity which will in turn help them to achieve equitable and effective participation (NEMA, Act 107 of 1998, as amended) (DEA, 2017). When the level of involvement of the local communities increases, the nature of their roles changes from being

'subjects' to 'directors' of the process (Buchy & Hoverman, 2000). In this regard, local community members are as a result capacitated and thereby have necessary expertise to effectively and efficiently run public participation process on their own and this helps in terms of ensuring sustainability at local level. Implicit with this, is that when more local community members are involved in the process the better the results. However, this should be done with maximum guard against biasness. Again, the more members of the local community are involved the more they are exposed to learning opportunities. In essence, this does not only help them in terms of the know-how of EIA process but also in terms of acquiring negotiation and problem solving skills.

Also worthy to be taken note of is that the timing of public participation determines the weight of the outcome. If people are consulted before the commencement of the proposed project, their inputs are more likely to be incorporated in the decision-making process than if they are asked to comment on an already identified and designed project (Buchy & Hoverman, 2000). With this kind of platform, different stakeholders become involved in the process and as such start to know issues and processes better as more information is exchanged amongst the experts and the indigenous community members. Basically, the more community members are involved in EIA meetings the more they learn and have better knowledge of processes and that of environmental protection and sustainable development. Succinctly put, when people are at loggerheads because they are talking past each other at times, public participation as a process suffers and even fails to attain set goals.

Whilst it is true that participative process of public participation presents opportunities for learning particularly by indigenous people, there is a need, however, to ensure that the process is not derailed or sabotaged. As noted by Buchy and Hoverman (2000), evidence shows that people from the wider community often come to public participation meetings expecting to gain greater control over the process while at the same time government agencies rarely want to relinquish control. In this regard it is therefore imperative to be pragmatic by ensuring that a compatible approach is used for a particular type of community involvement. This is much so because group dynamics always demand concomitant strategies on how to conduct public participation process effectively and efficiently and also achieve the set goals and objectives. In this regard, community capacitation will not only be limited to the know-how of EIA process and regulations but will as well entail communication and inter-relation skills. With these assertions, it is very clear that public participation is a necessary tool for EIA and as such the manner in which it is conducted plays an important role in determining the success of this procedure. Implicit with this, is that there is a need to improve on the implementation of public participation for sustainable development.

2.5 Need for public participation in EIA process

As alluded to earlier on by Murombo (2008), sustainable development involves social and economic development that meets the needs of the current generation without undermining or hindering future generations' opportunity to meet theirs. Although the two goals seem polarised, sustainable development ensures that social and economic development goals are harmonised and be operational within the natural environment – one being mutually inclusive of the other. In the wake of this, the involvement of the public during participation process ensures that the issue of transparency is adhered to and thereby improves on environmental decision-making process and this augurs well in terms of sustainable development.

Quite concerning though, is that South African laws were considered to be ineffective as tools to promote sustainable development as they leave much discretion to environmental assessment practitioners (EAPs) regarding the form in which public participation could assume (Murombo, 2008). This, therefore, makes public participation a highly contested issue amongst the practitioners. In practice, one particular development project could therefore have several public participation outcomes as a result of different approaches and techniques used by different practitioners. Accordingly, Patel (2009) points out that in South Africa, the natural environment continues to be marginalised in decision-making despite constitutional commitments of environmental justice.

2.5.1 Objectives of public participation

According to Andre, *et al.* (2006), public participation is basically aimed at stimulating discussion amongst different stakeholders thus resulting in better projects, better development, collaborative governance and ultimately a more sustainable world. This assertion, therefore, implies that greater achievements in project and policy developments are curtailed and made impossible by undermining public participation or denying interested and affected parties opportunity to voice their concerns and fears or provide the authorities with vital pieces of relevant information. In essence, public participation is essential for good governance and in the process, local communities are empowered (Andre, *et al.*, 2006). According to Andre, *et al.* (2006), the objectives for conducting public participation can be summarised as follows:

- To invite I&APs to decision-making process to foster justice, equity and collaboration
- To inform and educate stakeholders on the planned intervention and its consequences

- To collect data and information from the public about their human and biophysical environment as well as about the relations they have with their environment

2.5.2 Methods and approaches of public participation

There are various factors which come into play with regard to the manner in which public participation should take place. Communities and their composition as well as orientation of citizenry are vastly varied. As pointed out by Palerm (2000), there is a need for specific participatory mechanism purposed to suit specific socio-economic, political and cultural considerations of the public. This implies that different situations demand for different approaches since one particular method cannot be an answer to all the problems. There are several approaches employed during public participation of which some are identified below.

- **Informing:** The public may be informed about the proposed project by way of answering questions through telephone interview or questionnaire and in the process vital information will be solicited (Davids, *et al.*, 2005). This, however, is a one-way process since information in the position of the proponent is not necessarily divulged except only subtly.
 - **Consultation:** In this regard the public is consulted about the proposed project. The participants are allowed to express their views, fears and concerns. The facilitator can also discover conflicting interests of the participants. In the process the authority has the sole power of decision-making regarding the course of action (Keen, *et al.*, 2005).
 - **Involvement:** Through this approach, the authority capacitates the public in the way in which they get involved and contribute towards decision-making. It is through this technique that there is an exchange of ideas and initiatives amongst stakeholders (DEAT, 2002).
 - **Collaboration:** This approach enables the participants to negotiate and engage with those in authority and also make trade-offs. Though the participants cannot be regarded as equals with those in authority, decision-making is through consensus (DEAT, 2002).
 - **Empowerment:** This approach involves the transfer of power from the authority to the public with regard to planning and decision-making process. This is only possible when the authority shall have capacitated the public with skills and knowledge necessary to enable them to make responsible decisions and in the process become accountable (DEAT, 2002).
- Citizen control:** Participants are empowered to the level that they are able to make independent decisions and as such can also make initiatives on certain projects with

minimal consultation with the authority though there can be some sort of dependence with regard to financial assistance (Selman, 2004).

These methods or approaches of public participation are very much pivotal in determining the outcomes and success of the process. Different communities present a very unique dynamism requiring a particular approach concomitant to the local reality. Whilst it is imperative to ensure that the community is empowered to the level that it can effect plausible independent decisions and also show initiatives in some projects, caution should be taken that not all communities are capable of doing that. At some point and stage, an evaluation should be made with regard to the level and amount of skills and knowledge a particular community has acquired. This can help in determining the appropriate approach to be used when conducting public participation so that the process can be effective and efficient. Precisely, where necessary the lowest rung of public participation can be implemented though as a starting point in preparation of the target group to graduate to higher and more effective approaches. With time, the community can be exposed to citizen control approach whereby they will be able to take plausible independent decisions and also make initiatives in handling public participation of development projects yet with minimal assistance required. At this level, the community is able to conduct public participation effectively and efficiently and as such saves time and financial resources this process is known for.

2.5.3 Linking public participation to the EIA process

EIA procedure essentially varies based on the nature; and geographic and socio-demographic context of the projects (Hasan, *et al.*, 2018). This assertion is only applicable and relevant when reference is made to various countries where conditions for development and prevailing legislations vary. The timing with regard to the stage in which the public should be involved during EIA process is very important if effective public participation in EIA is one of the set objectives. Put rather differently, for public participation to be effective, the public needs to be involved at the inception of the EIA process whereby their inputs will be addressed and considered at a very crucial stage of the process. This does not only help in terms of project legitimacy amongst the community members but also in terms of cost-effectiveness since unnecessary delays to the project progression will be averted (Pagatpatan & Ward, 2018). Basically, if the early involvement of the public is considered a crucial element of effective public participation in EIA, it then implies that their involvement should not be a once-off event. Categorically put, public participation should be conducted at every stage of the EIA project cycle. The hierarchical components of the EIA procedure include proposal identification, screening, initial environmental study, scoping, impact

analysis, mitigation and environmental management plan, EIA report, review, decision making, implementation and follow up (Hasan, *et al.*, 2018). For the purpose of this study, these components have been rationalised to: screening, scoping, environmental impact study, report review and decision making, and monitoring and evaluation. This rationalisation has been done to ensure logical and meaningful discussion.

- **Screening**

Screening is an initial stage of a developmental proposal wherein it is determined whether or not such a developmental proposal requires environmental assessment and if so, the appropriate level of assessment (DEAT, 2002). In other words, it is at this stage wherein the nature of a newly-proposed development project is determined in terms of the magnitude of its impacts on the environment thereby informing whether a full scale EIA or basic assessment should be conducted before project approval (DEA, 2014). In other words, screening is a process that determines the need for and scale of an environmental impact assessment and to the practitioners, this is usually considered as a desktop study (Aucamp, 2009). Where desktop study cannot provide sufficient information for a plausible decision to be made, a brief evaluation of the site is required and as such site visit becomes an imperative requirement. However, in that screening is a process used to determine whether an EIA is needed or not, to some practitioners this phase is not considered as part of the EIA process (Aucamp, 2009).

To be exact, screening determines whether the project falls under those listed in the Listing Notices 1 and 3 (R327 and R324 respectively) which only needs Basic Assessment (BAR) or those listed in the Listing Notice 2 (R325) which requires Scoping and full EIA (Mubanga & Kwarteng, 2020). In terms of applicable environmental legislation, activities or development projects are listed in various categories to determine their nature and magnitude and the type of assessment required. In the wake of this, it therefore implies that certain development activities may not be listed and as such do not require basic assessment nor full scale environmental impact assessment. In simple terms, screening is purposed to determine the nature and magnitude of a proposed development project and allocate it appropriate assessment tool. Also of prime importance is that it is not only the size and nature of the proposed development which determine the type of assessment tool that should be applied. Sensitive environments like wetlands require that EIA be done even if the type of development project does not require EIA as per applicable listing (Aucamp, 2009).

In South Africa, a formal screening report is not required but an application for authorisation must be submitted before an EIA is undertaken (Aucamp, 2009). However, in that particular information is needed; for instance, description of the need and the desirability of the project, for the decision to be made at this stage of the process, collection of such information may involve the ward councillor and at some stage the general public in the locality of the proposed development project. Basically, decision made at this stage of the process is to determine if the proposed development project requires basic assessment or full EIA as determined by the magnitude of the envisaged significance of the impacts on the environment. At some point, a project proposal may be rejected based on the significant environmental impacts which exceed the defined threshold of concern and cannot be mitigated (Aucamp, 2009). In the wake of these assertions, public participation is therefore implied at this stage of assessment. In essence, decision-making process in determining the necessity for or not for EIA or a particular tool for assessment requires inputs solicited from deliberations held with various stakeholders.

Also of prime importance with regard to the screening process is the issue of consideration of legal requirements for the process. In essence, determination of which assessment tool should be considered appropriate for EIA as informed by the nature of potential impacts on the environment, requires relevant legislations for the process. Basically, there should be scrutiny for EIA regulations as determined by the size and nature of the proposed development project. As per NEMA, a proposed project may either require basic assessment process or full EIA. Basic assessment needs less information and is done on a single project but still contains all the steps of the full assessment but one report is submitted to the authorities for approval whereas a full EIA is required for more complex projects and as such involves more interaction with the public and authorities (Aucamp, 2009).

Reports required in full EIA for submission to the competent authorities include: scoping report, environmental impact report (EIR) and a draft environmental management programme (EMPr). Additional to the EIA regulations that should be complied with during screening process are: Minerals and Petroleum Resources Development Act (Act 28 of 2002), National Water Act (Act 36 of 1998), NEMA: Biodiversity Act (Act 10 of 2002), NEMA: Air Quality Act (Act 39 of 2004) and NEMA: Waste Act (Act 59 of 2008) - amongst other applicable legislations. This additional list of acts is consulted as determined by the potential impacts the proposed development project is likely to have on the environment. Also to be noted in this regard is that this list is not exhaustive. Furthermore, it is not in the scope and interest of this research study to cover all regulations and legislations applicable to EIA as determined by the proposed development projects.

With the determination of the nature and magnitude of the proposed development project thereby informing the decision for the appropriate assessment tool, public participation becomes a necessary component of this process. Put differently by O’Faircheallaigh (2010), screening without public participation poses a risk of downplaying the negative impacts of the proposed project and the exaggeration of its environmental benefits by those who have invested interests in the proposed project namely the project proponents and their consultants. Implicit with this assertion is that public participation is necessary at this stage of EIA process as it provides opportunity for experts and laypeople to exchange ideas, contest and deliberate on the potential project environmental impacts thus promote justice, transparency and accountability. This helps prevent raising issues at the later stages as this may lead to confrontations and at some point litigations. According to Hasan, *et al.*, (2018), public participation in the screening stage of EIA process is essential for two reasons: identifying stakeholders’ interests and socio-cultural values; and to harness the resourceful local information. Precisely, public participation at this stage necessitates public scrutiny which cannot be overlooked for fear of recurrent consequences which can also affect process effectiveness in terms of costs and related matters.

- **Scoping**

According to Aucamp (2009), scoping is a critical stage in preparation for EIA in that it identifies the most important issues that must be covered by the process. This makes the EIA studies to focus on the significant effects. It is also at this stage of assessment process where there is interaction amongst all stakeholders in identifying the key issues for investigation. In the wake of the assertion above, scoping determines the direction that the final assessment should and must take. In this regard, scoping is required for both basic assessment and full EIA but the difference is that scoping report is a compulsory requirement due for submission to the competent authority for full EIA assessment. This stage determines the spatial and temporal extent and key issues to be addressed in an environmental assessment with the main purpose of focussing environmental assessment on a manageable number of important questions. Scoping process should ensure that only significant issues and reasonable alternatives are examined (DEAT, 2002). In simple words, it is at this stage of EIA process where terms of reference for the project are determined. Accordingly, it is at this stage that it is compulsory to engage the relevant stakeholders and other interested parties to chalk out the major environmental issues and concerns that ought to be addressed in an EIA (Hasan, *et al.*, 2018). Put differently by Aucamp (2009), the public, authorities and NGOs are the integral parts of the scoping process. Quite explicit with this assertion is that

public participation is the crux of this process since it helps in ensuring that important issues raised during public participation process are not overlooked in the EIA study.

Involving the public during the initial stages of EIA helps in many respects. As pointed out by Hasan, *et al.*, (2018), carrying out public participation during the scoping stage offers participants the opportunity to learn about the proposed project and its probable consequences and this enables them to contextualise the understanding in line with the upcoming exposures and timeously raise their voices in the form of opinions, concerns and suggestions accordingly. Also of critical importance is that involving the public and other stakeholders in the process helps with the gathering of local information (Aucamp, 2009) and in that regard all stakeholders become invaluable source of information. Precisely, stakeholder involvement and participation process are crucial facets of scoping process for both basic assessment and full EIA process. Furthermore, assuring public participation in this stage influences appropriate choice of project alternatives and identification of issues and concerns that need to be studied before adoption of mitigation measures. In the light of this assertion, it is therefore implicit that public participation at this stage of the EIA process is very much crucial and as such imperative to conduct.

- **Environmental Impact Study**

Environmental impact study is another crucial stage of the EIA process more importantly because it involves prediction of probable environmental impacts of the proposed project, consideration of mitigation measures and programmes for environmental management (DEA, 2014). Implicit with this assertion is that this is the most technical stage of the EIA process. However, delving deeper into the technical issues pertinent to this stage of EIA is not the focus of this discussion. Also very important to note is that the involvement of laypeople during this stage of the EIA through public participation is necessary since it provides for the scrutiny of technical information by various participants thereby leading to the legitimacy of the process and the project as well. Though the presence of the public is considered “irrelevant” by some critics, the stance maintained by this research study is that their lack of requisite expertise can be viewed as temporary in that public participation is also meant to inform, educate and capacitate them with the view of empowering them for citizenry control. Precisely, the fact that EIA is a scientific and technical process cannot be a justifiable reason to leave out members of the public during discussions at this crucial stage of the process. Basically, laypeople usually provide a different perspective of issues based on experiential and observational knowledge uncharacteristic of technical process (Rasch, 2019). Furthermore, the involvement of the public in this process helps in keeping watch of proceedings by experts who cannot be rule unto themselves. In essence, experts cannot equally perform even

in issues that involve value judgements, and as such public involvement at this stage of the process is imperative. Studies suggest that fully involving the public in EIA process paves way to successfully execute the process and also implement the development project efficiently (ELAW, 2015).

- **Report review and decision-making**

In that public participation should take place in every stage of the EIA process, public inputs can therefore impact on the design and decisions of the process. This implies that public participation is inherent of review of some of the aspects of EIA. Accordingly, Hasan, *et al.*, (2018), concede that public review at the early stages of the process provides a precious opportunity in order to ensure that the entire EIA exercise is thoughtfully designed while duly addressing and accounting the issues of community concerns. However, it cannot only be about community concerns that reviews about the process are made but other factors may also play a role as well. In this regard, project and EIA designs and plans can be reviewed on the basis of political influence, traditional values and local knowledge. Furthermore, it is at this stage where the competent authority (in this context DEA) determines whether the information contained in the EIA report is enough to base a well-informed decision as well as determining if all the legal and procedural requirements have been complied with. Also of prime importance is to note that it is at this stage whereby the EIA report must entail the Specialist Report and Environmental Management Programme (EMPr) (Mubanga & Kwarteng, 2020).

According to O’Faircheallaigh (2010), public participation should be designed to ensure that all relevant information, including input from those potentially affected by the proposed project, is available so that decision-maker (competent authority) can make the most informed and well considered decision. This actually helps the decision making process to be inclusive, meaningful and effective. As pointed out by McAndrews and Marcus (2015: 539), “studies of public participation in Wisconsin in the US has proved that neighbours’ influence in the transport decision-making went above and beyond traditional roles of citizen-participants. In this instance, they prevailed in effecting design changes and this benefitted their neighbourhoods.” This confirms the narrative that public participation is a significant component of EIA. Succinctly put, the traditional top-down decide-announce-defend (DAD) approach is discarded since it cannot be effective as public opinions and interests are not incorporated into decisions (Liu, *et al.*, 2019) and this suggests that involvement of the public in decision-making is a non-negotiable.

However, it should be noted that public participation does not always yield positive influence in terms of decision-making. Accordingly, Drazkiewicz, *et al.*, (2015) concede that due to public participation, local knowledge can also support decisions and plans that are detrimental to the environment depending on how environmental issues are framed according to local attitudes and traditions of resource use. Furthermore, in the same vein, Enriquez-de-Salamanca (2018: 14) pointed out that “people negatively affected by the project tend to use all possible ways to defend their interests, not always objectively, but sometimes with fake arguments. For instance, during the public participation phase of EIA process of a railway in Central Spain and a motorway in Northern Spain, the neighbours affected alleged in both cases the presence of endangered wildlife species to defend their properties, which was actually false.” In the scenario given, it is explicit that the public may mobilise against a less environmentally aggressive alternative site and influence the decision to choose a site with greater social acceptance but with higher environmental damage. Basically, popular decisions are not always the best. In the wake of these assertions and explanations, public review of the reports and process; and their role in decision-making are very crucial as they are determining factors for the outcome of the EIA process as it is with the fate of the project.

- **Monitoring and evaluation**

As already noted earlier on in this research study, EIA is a predictive assessment tool purposed at regulating and mitigating probable environmental effects of a proposed development project with the aim of ensuring that development remains ecologically sustainable. However, even after completing an EIA exercise, public participation has to continue (Hasan, *et al.*, 2018). Implicit with this assertion is that project approval or soliciting a positive verdict from the competent authority should in no way mean the end of public participation. Succinctly put, the issuance of project authorisation by the competent authority should not imply the end of public participation. Precisely, public involvement beyond EIA procedure is very important particularly considering the weak monitoring system in the South African environmental governance context.

In essence, environmental and project consultants as well as developers cannot effectively, genuinely and objectively monitor themselves. In other words, public participation should continue even during implementation, operational and decommissioning phases of the project and the role of the public should be categorically determined. Basically, monitoring and evaluation of the process and the project should be inclusive of public participation with the community having a role of a “watchdog”. This helps in terms of reporting on any digression from EMPr and any associated conditions for project authorisation by the competent authority. As indicated earlier on,

without public participation, particularly at the level of monitoring, EIA gets conducted for compliance only and in the process the natural environment continues to be degraded. Precisely, with compliance, monitoring and evaluation, lessons are learnt and as such public participation can be improved and so is the implementation and design of the EMPr. With these assertions, public participation is portrayed as being very pivotal in every stage of the EIA procedure, however there is a need to make it effective in practice hence the discussion hereunder.

2.6 Public participation effectiveness in EIA

2.6.1 Effectiveness of public participation

The concept “effective” is relative in nature since what it means in one situation may not necessarily be applicable in another. To Pagatpatan and Ward (2018), effectiveness refers to the degree to which something is successful in producing a desired result. From a democratic perspective, public participation process can be considered effective if it is inclusive and fair (Hasan, *et al.*, 2018). According to Rowe and Frewer (2004), public participation is considered effective if there is meaningful involvement of the relevant members of the target population in all stages of development. However, Steward and Sinclair (2007) consider participation to be effective if entails integrity, accountability, fair notification, inclusiveness, capacity building and a positive communication environment. In the wake of all these assertions, Simpson and Basta (2018), concede that the practice of EIA faces the general challenge of defining and evaluating effective public participation.

Though not generic in nature, Andre, *et al.* (2006) has suggested principles of best practice which can be applied during public participation process thus render it effective and results yielding. These principles apply to all stages of public participation and it is therefore imperative that public participation practice should adhere to them. These are principles purposed at describing how “Basic Principles” should be applied in the main steps and activities of environmental assessment processes. Figure 2.1 below shows the manner in which the basic and operating principles of public participation should be carried out during implementation and this entails the guidelines thereof on how this process should be effected so as to ensure that the set goals for the process are attained.

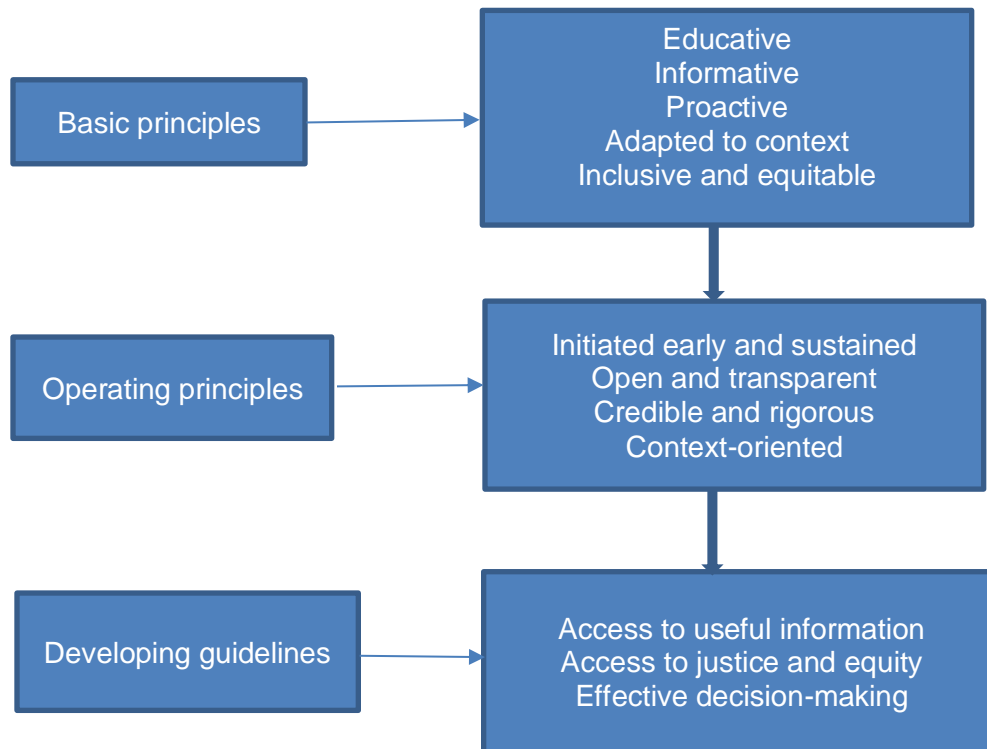


Figure 2.1 Integrating basic principles, operating principles and guidelines for public participation

In order to make public participation effective and attain the set goals and objectives, various stakeholders need to come on board and assurance need to be made that this process does not include manipulation of public opinion by public relations techniques or by limiting the freedom to participate. Furthermore, to be effective, communication amongst all participants has to be considerate of heterogeneity in terms of culture, tradition and personalities (Andre, *et al.*, 2006). In essence, there should be consideration of societal diversity. There should be better understanding and appreciation of rights and values of the affected communities. This makes public participation to be adapted to context which is varied amongst the societies in terms of manner of communication and the local values. Accordingly, consideration of important basic principles for public participation integrated with necessary and relevant operational principles make public participation not only effective but a necessary component of EIA. However, despite these varied perceptions with regard to the necessity and effectiveness of public participation, the process remains crucial in determining the success of EIA procedure and as such, efforts should be made to ensure that it is effective and in this regard this can be made possible by applying necessary and relevant principle which are considerate of local realities. In order to ensure that public participation is made effective in practice, there is a need to identify and discuss approaches necessary to this process.

2.6.2 Approaches to the effectiveness of public participation

Many scholars have been contending on how the evaluation of public participation as a process should be conducted. There is a school of thought that maintains that public participation be evaluated as determined by the quality of process whereas on the other hand there are those who maintain that the effectiveness of this process should be determined by its outcomes (Hourdequin, *et al.*, 2012). Precisely, evaluation criteria formulated by some scholars are process based whereas others are based on the outcomes or objectives of the process. However, as indicated earlier on, it should be taken into consideration that the concept “effectiveness” is subjective as its meaning is dependent upon whose perspective is being considered and what their perspectives entail (Pagatpatan & Ward, 2018). Basically, being dismissive of any of these approaches without consideration of factors informing their stance is being ignorant. However, instead of the “either or” approach, considering plausible and pragmatic perspective of both approaches can be helpful. For clarity sake, the evaluation approaches of public participation are expounded hereunder.

- **Process effectiveness**

The term effectiveness procedurally refers to the degree to which something is successful in producing the desired results, however a general or universal definition of effective participation is quite difficult to come up with as the aims and its formation are diverse (Pagatpatan & Ward, 2018). From a democratic perspective, a public participation process can be called effective if the process is inclusive and fair (Hasan, *et al.*, 2018). On the other hand, a decision-making perspective might look at the inclusion of people’s choices, values and ideas while an economic perspective might be more concerned about cost-effectiveness to call it an effective public participation (Rowe & Frewer, 2004). Explicit with these assertions is that though the effectiveness of public participation is based on how the process is conducted, the determinant criteria are varied from one researcher to the other.

This, however, gets compounded when considering that participants in EIA process are diverse since they include general public, government officials, I&APs, NGOs, CBOs, academics, mediators – amongst others. Quite explicit with these participants is that they have different and sometimes conflicting and competing expectations and perceptions about public participation. For instance, to some an effective process must be inclusive, transparent and just whereas to others the process must have provided participants with equitable access to credible and genuine

information. To Hourdequin, *et al.*, (2012), public participation qualifies to be effective if it meets the following principles: equal opportunity to participate, equal access to information, genuine deliberations and shared commitment. Deductible within the assertions made, is that process oriented effectiveness is based on a list of predetermined criteria which are numerous but can be summarised into four broadly encompassed groups: inclusion, fairness, access to information and transparency. However, quite notable with the list of criteria set out by some researchers and academics as determinants of the effectiveness of public participation as a process is that it is not exhaustive. It is on the background of this explanation that this research study will not be purposed to try and make such an exercise.

- **Outcome effectiveness**

The effectiveness of public participation cannot only be based on process evaluation criteria or that consideration for process effectiveness be taken as implying outcomes evaluations. Put differently, process evaluations cannot be misconstrued for outcomes evaluation. At face value, the difference between the two is that outcomes effectiveness is based on the quality of decisions made. In this regard, the outcomes of participatory process can be evaluated on the objectives or goals of public participation process: inform and educate the public (Simpson & Basta, 2018), consideration of public inputs in decision-making (Sinclair & Diduck, 2017), improving legitimacy of the proposed activity or project (Wesselink, *et al.*, 2011), building trust in the institutions (Andre, *et al.*, 2006) and cost-effectiveness (Pagatpatan & Ward, 2018). To some researchers, the importance of an increased trust among stakeholders is considered a major criterion for public participation's effectiveness (Hasan, *et al.*, 2018). To Pagatpatan and Ward (2018), cost-effectiveness is a crucial outcomes criterion in determining the effectiveness of public participation process. In considering the goals and objectives for public participation, the list of outcomes criteria can be increased to even include capacity building and conflict resolution, amongst others. However, for the purpose of this research study, outcomes effectiveness will be based on: capacitation, influence and quality of decisions made.

- **Integrated approach**

This approach envisages to avoid the discrepancies brought about by the “either or” stance. In essence, this approach integrates criteria of process and outcomes effectiveness and as such thus seeks to create a plausible balance inherently absent with either of the two approaches. This approach provides an adequate framework for analysis. This comes into play in the sense that a good and successful process cannot always imply a good and successful process in terms of outcomes. Bluntly put, this approach integrates the merits of the two approaches (process and

outcomes) and in the process discard off their limitations. In practice, process and outcomes evaluation approaches are not mutually exclusive in determining the success and effectiveness of public participation. Basically, using process (procedural) effectiveness or outcomes (substantive) effectiveness as the determinant of effectiveness of public participation in EIA is procedurally and practically flawed. It is in this research study that the combination of both procedural and outcomes approaches is advocated for as a plausible and comprehensive framework meant to conduct and evaluate public participation in EIA. This will enhance a move away from being a generic approach thus developing flexible and adaptive approach embracive of local contextual factors inclusive of applicable standards and principles as well as the set process objectives. The evaluation approaches identified are made up of evaluation criteria herein also referred to as pillars for public participation in EIA. Their discussion is necessary in order to determine the effectiveness of public participation process in practice.

2.6.3 Pillars for public participation in EIA

- **Access to information**

In terms of national environmental guideline, it is a legal requirement for the public to receive clear, accurate and understandable information about the environmental impacts of the proposed activity during public participation (DEA, 2017). Furthermore, “prior to commencing with any deliberative process, all participants (experts and the public) have to be given chance to be on the same level of information in order to be able to engage in a sensible and productive debate” (Schroeter, *et al.*, 2016:122). In the wake of this, the issue of access to information by the public does not only have legislative implications in the process of public participation but also have functional significance as it is very instrumental in making the participants influence decision making from an informed position. This, therefore, makes contributions and inputs by the public effectual and rational and therefore not based on emotions and other ulterior motives. Also of serious concern is the institutionalised relationship between the EAP and developer. Though having a moral responsibility of being independent whilst being remunerated by the developer, the EAPs will be conflicted in executing their duties in a fair and honest manner. This is because being transparent in terms of all information available may at times jeopardise the success of the application for project authorisation. This state of affairs is very crucial in not only influencing which project issues to divulge to the public but also in determining the outcome of public participation process. However, effective public participation is possible with the full disclosure of objective and credible information through all stages of EIA process.

Access to information is also provided for within the South African Constitution in Section 32 that “everyone has the right of access to any information held by the state and any information that is held by another person and that is required for the exercise or protection of any right” (Republic of South Africa, 1996). However, since the Constitution is the supreme law of the country, all other legislations speak to and also expatiate on the right of access to information in detailed principles yet without contravention of the rule in supreme. In essence, whilst there is provision to access information as enshrined in the constitution of the country, this should be achieved without infringing on other people’s rights as well, for instance right to privacy.

Quite implicit with this is that availability of information does not necessarily imply access to information. In actual fact, the use of technical jargons and scientific rigor by the environmental consultants can be another way of denying the public access to information. Precisely, speaking above or past the audience denies them access to information. This, in a way, handicaps them in making effective and meaningful deliberations. Furthermore, to remain silent while having relevant information thereby avoiding conflicts and reprisals is another form of manipulation called censorship (Enriquez-de-Salamanca, 2018). Also very concerning in practice is the tendency by EAPs to provide information as per minimum requirement of the law. At times EAPs only provide extra information when prodded to do so by the audience during deliberations or question time. Implicit with this assertion is that EAPs will deny the public access to information by being economical with the truth. For instance, the provision within EIA guidelines for public participation that “the environmental audit report (EAR) will be made available to anyone on request and on a publicly accessible website provided the holder has such a website” (DEA, 2017:7) is an administrative flaw open for abuse. Providing the report on request presents EAPs with opportunity to deny the public right of access to information. Again, to make the report available on publicly accessible website provided the holder has such a website undermines the issue of justice and fairness in terms of applicable environmental legislation. Implicit with this provision also, is that the public is not only denied right of access to information but also opportunity to be involved in a deliberative interaction associated with public participation. More importantly, access to a website cannot be for everyone interested or affected by the proposed development activity. In the wake of this, access to such information by the disadvantaged and marginalised communities is denied by default.

Precisely, making the information available should not be misconstrued to making it accessible – the two concepts are mutually exclusive in practice. Also of prime importance is that process goals cannot be achieved without citizens’ active and co-operative engagement which must be

underpinned by their awareness of their rights, their knowledge of the roles as citizens and their confidence in the process of public participation (Chi, *et al.*, 2013). Implicit with this assertion is that effective participation by members of the public is dependent upon their awareness of their rights and roles made possible by full disclosure of the process by those responsible. Furthermore, access to information is also made possible through information sharing approach where information by laypersons is exchanged in an equitable manner with that of experts (Hourdequin, *et al.*, 2012). Also notable in this context is that the community may have local knowledge but lack the skills and expertise to make meaningful deliberations or contributions during discussions.

At some stage, disadvantaged and marginalised local community members like the illiterate and old age people may even lack communication skills or capacity to disseminate experiential knowledge or information at their disposal, let alone to engage in deliberative discussions. Furthermore, provision of information to the public should be on time so as to ensure that their contributions during discussions and deliberations is meaningful thus making public participation effective. Basically, late provisioning of relevant information does not help the process and as such can be considered as denying the public access to information (DEA, 2017). In this regard, access to genuine, objective and up-to-date information is one of the requisites for effective public participation. In essence, making pragmatic competent judgements by the participants is only possible when they all have common understanding and positioning in terms of the information accessed or provided.

- **Inclusivity and diversity**

“When the 2030 global agenda for sustainable development was set, one critical component of this vision for the transformation of the world was that ‘no one should be left behind’” (Thakhathi, 2019:1). Accordingly, the assertion that ‘no one should be left behind’ is embrative of the principle of human respect (Weber, 2017). Furthermore, in that “the constitution of our country, according to section 24 of the Bill of Rights, provides that everyone has the right to an environment that is not harmful to their health and well-being” (Republic of South Africa, 1996: 8-9), it is therefore indicative of the fact that the issue of social justice and equity can no longer be ignored. This piece of legislation has been further supplemented by regulation 40(3) of the EIA regulation, GN No. 326 of 2017 (as amended) which requires that “potential or registered interested and affected parties be provided with an opportunity to comment on reports prior to submission of an application” (DEA, 2017:5). In fact, when efforts to ensure social and economic development tend

to be done without involving everyone interested and affected by such developments is equivalent to social injustice and as such is an act of gross human rights violation.

However, when efforts are made to ascertain that 'no one is left behind', it is therefore imperative that sustainable development be inclusive (during its implementation) of the set goals and objectives. "This requires a holistic approach to sustainable development that is inclusive" (Thakhathi, 2019:2). It is through this principle of universal human dignity that the idea of inclusivity is reflective of inclusive participation wherein spaces are created to give the marginalised communities' platform to disclose their fears and interests. This implies that participation is made possible when there is inclusion of 'everyone' through the making of inputs in terms of decision-making during development projects. Accordingly, Thakhathi (2019:11) advocates for "inclusive development that goes beyond the concerns of the rich by accounting for the vulnerable and marginalised communities in the development process. Inclusion entails continuously enabling communities to be actively involved in co-producing strategies and programmes for defining and addressing relevant issues." In essence, enhancing public participation promotes inclusivity which in turn helps the community to make deliberative and pragmatic inputs in tackling issues of environmental and social concern.

Succinctly put by Perkins (2011), processes which ensure that community members are given opportunities to participate have many advantages which amongst them include giving people a platform to make contributions for decision-making process. In this regard, it is therefore imperative to consider that public participation is necessary for sustainable development. In the wake of these assertions, it is therefore imperative that all stakeholders be brought on board during public participation and this includes; Interested and Affected Parties (I&APs), ward councillors, traditional leaders, civic organisations, Department of Water and Sanitation, Department of Environmental Affairs, Land Commission, private landowners, South African National Biodiversity Institute and all community members irrespective of their differences, colour, creed, gender or class. This makes the process to be fair and inclusive and as such embrative of democratic principles thus ensuring that 'no one is left behind'. Succinctly put, the rights for everyone to participate are therefore protected and as such no deliberate exclusion is promoted.

- **Influence on decision-making**

Implicit with the provisions within national environmental guideline is that credible influence on decision-making by the public is possible with access to credible information about impacts of the proposed development activity (DEA, 2017). Despite inherent challenges regarding decision-

making, it is therefore necessary not only to have access to information but also to allow people to engage in an open and deliberative discussions on the information provided (Sinclair & Diduck, 2017). “Involving affected communities in decisions having an impact on the environment they live in thus seems to respond to their expectations” (Regga & Baldizzone, 2015: 106). Succinctly put by Martinez and Olander (2015), the exercise of engaging a wide range of stakeholders requires systematic process of stakeholder collaboration thus making the process to achieve better informed decisions.

Decision-making is a complex exercise for the public particularly because it requires special skill and expertise which help in integrating issues involving social, economic and environmental aspects and all these are not necessarily in the competence of every member of the public. Succinctly put, this is a demanding cognitive process particularly to the illiterate and uninformed. Generally, people feel comfortable and embrasive of the proposed project if their inputs are considered in decision-making. However, the public inputs have to be considered in decision making process by the competent authority since their contributions are usually based on experiential local knowledge. The traditional top-down decide-announce-defend approach is ineffective in making project accessibility by the public (Liu, *et al.*, 2019). In contrast, when the public has a stake or consideration in the decision-making process they feel empowered and this is a good omen for effective public participation. Again the timing of public involvement in the EIA process is very crucial since their impact during the last stages of the process cannot be compared with when they are involved from the early stages. Bluntly put, the earlier the people are engaged in the EIA process, the better. Involving the public in the early stages of the EIA procedure improves the quality of decisions made public participation (Rasch, 2019).

Furthermore, owing to their lack of capacity, members of the public only influence decisions instead of being actively involved in decision-making processes. For instance, their preferences or wealth of local knowledge may help in influencing the change of the project design. Precisely, their input will help those with the required knowledge to change the design of the project (McAndrews & Marcus, 2015). Put in simple terms, involving community members through public participation should be proactive and done from the onset of the EIA procedure so that their contributions in terms of decision-making are timeous and effective.

- **Access to justice and fairness**

Access to justice is a very important pillar of public participation because without it the other pillars are compromised in terms of their value and effectiveness. Intricately intertwined with this pillar is

the issue of access to information and opportunity to be involved in decision-making (Hourdequin, *et al.*, 2012). In simple terms, being devoid of an opportunity to access project information, public participation in EIA is therefore compromised. Put differently, access to justice ensures that the process is legitimised and the other rights enjoy enforcement. In essence, if the opportunity to access information is not provided, there is a recourse through access to justice and other legal provisions to seek remedy and redress. Generally, access to justice helps in ensuring accountability and compliance by responsible officials since the aggrieved party can have access to the courts of law and other legislative structures in order to seek remedy (Gidey, 2017).

Accordingly, many disputes have been settled through the petitioning of the courts by aggrieved parties and at times projects have stalled due to court interventions (O'Faircheallaigh, 2010). Furthermore, access to justice can be considered meaningless if courts of law and legal systems approached lack credibility and means to resolve raised issues in a just and fair manner. Put differently, access to justice is considered effective if aggrieved parties with regard to environmental issues raised receive fair and just consideration of the issues raised through the remedial measures used (Gidey, 2017). Global observations in terms of access to justice concerning environmental issues show varying levels of consideration. In Europe, matters of environmental interest have been handled by the European Court of Human Rights whereas African access to justice in environmental matters appears to be the pillar of public participation that is least developed (Mauerhofer, 2016). However, the low number of environmental decisions made in the South African courts with pertinence to issues of public participation shows that the issue of environmental justice is still in its infancy stage despite the constitutional commitment depicted (Du Plessis, 2008). India has shown a considerable progress in terms of access to environmental justice issues especially through innovative interpretations by the Supreme Court of India (Mauerhofer, 2016).

The procedure followed by EAPs in conducting EIA can have undesirable implications when it comes to how stakeholders' inputs and contributions are reacted upon. Basically, "every participant has a unique viewpoint and valuable input to contribute, and as such the deliberative process needs to assure that nobody is excluded and each participant has an equal opportunity to be heard and considered" (Schroeter, *et al.*, 2016:120). In other words, the manner in which facilitators handle public participation process should not be intimidating since the process is deemed to be inclusive in nature. This is because intimidated participants tend to retract and become passive. Furthermore, the concept of justice is embracive of the issue of fairness. "Fairness refers to the subjective impression that all participants were treated equally and that all

arguments and opinions could be openly voiced and had equal opportunity to be discussed” (Schroeter, *et al.*, 2016:123). However, the issue of fairness in terms of adjudicating participation is problematic because of its subjective nature. For instance, passive listening by participants in the process may present a difficult scenario for the facilitator to determine if that is the normal selves or a reaction to unfair proceedings (Hourdequin, *et al.*, 2012). This discussion has put into perspective issues of concern with regard to the performance of public participation process. In this regard, there is a need to discuss ways and means to improve this process in practice.

2.6.4 Towards the improvement of public participation process

In the last few decades, “ensuring a balance between economic growth and community development has been a growing concern for both governmental and non-governmental agencies” (Pimoljinda & Siriprasertchok, 2017:331). The same sentiment has been echoed by Sinclair and Diduck (2017) in asserting that environmental protection cannot be assured when taking into consideration that human population and activities are increasing. This is a necessary concern because meeting the needs of the ever growing human population requires development which without focus on its sustainability will pose problems for the survival of humankind. The implication hereof is that development should be considerate of the impacts made on the environment and the natural resources within it. In this regard, EIAs for qualifying development projects should be conducted effectively and efficiently and so is public participation process. Succinctly put by Pimoljinda and Siriprasertchok (2017), public participation is a necessary requirement to ensure that development is conducted in a sustainable manner. This is necessary because there are certain development projects which have failed due to lack of (meaningful) public participation.

Though public participation cannot be a complete “fool proof” exercise, the public must be engaged early in the EIA process. Accordingly, Aucamp (2009) claims that involving the stakeholders in the initial stages of the process has many benefits like that of creating trust amongst all parties; allowing more time for participation; improving public participation as well as improving on the transfer of knowledge and information. However, in order to emphatically achieve all these, the process must be focussed and strategically planned by ensuring that procedures and process objectives are communicated well in advance with all the participants. This is likely to eliminate misconceptions and also improve process credibility. In that public participation is considered by many practitioners as an onerous process; engaging qualified and experienced EAPs can help avoid complications with regard to project financial and human resource budgets. For instance, to the proponent, if the costs of EIA (public participation included)

exceed the benefits of the proposed development project, then such a project is not economically viable though it may be ecologically sound.

In practice, public participation is faced with a plethora of challenges, constraints, problems and inadequacies which undermine the goals for sustainable development. Accordingly, Sinclair and Diduck (2017) encourage that new ways and opportunities be found so that public participation can focus on opportunities for shared learning as opposed to single opportunities. This, therefore, is an effort to do away with an approach of a one-size-fits-all type of public participation meetings. This is much so because participants of public participation meetings are varied and such heterogeneity requires equally suitable engagement strategies. For instance, people living in the same locality may differ vastly in terms of tradition, values and preferences. Basically, engaging stakeholders and the general public cannot be done through the same approach particularly if the intended goals involve effectiveness and efficiency of the process. In the wake of this, Rasch (2019), points out that public engagement processes inclusive of the general public are what facilitators of public participation processes acknowledge that ideas of such groups are very different.

In that public participation process is resource intensive in terms of money, time and labour, the manner in which it is conducted must be optimised (Aucamp, 2009). Succinctly put, participants should be regularly invited for engagements as per specified regulations in order to prevent unnecessary delays due to misconceptions and differences. For instance, it is appropriate to provide ordinary public with a simplified and translated version of the technical documents well in advance. This helps to find a common ground for deliberations between the ordinary members of the public and the experts. Without this kind of intervention, public participation may delay the whole process of EIA and eventually undermine its ultimate objective.

According to Sinclair and Diduck (2017), there is a need for active participation whereby the public will be trained by government agencies in the designing of relevant participation programmes. Basically, the involvement of all stakeholders in the design of the participation programme will help avoid bias by anyone of them unless they collude to do so, which is very unlikely. Furthermore, Sinclair and Diduck (2016) advocate that “effective techniques for deliberative participation include stakeholder advisory committees and task force since these methods facilitate dialogue and communication amongst proponents, regulators, interested public and civic organisations thus enable on-going interactions, mutual learning, relationship building and conflict resolution.”

“In order to encourage good communication, learning from experience, building common understanding and making effective adaptations, participation processes must be monitored and assessed” (Sinclair & Diduck, 2017:179). Basically, not every EAP is capable of conducting an effective and efficient public participation process. This implies that to facilitate public participation meetings requires specialised personal skills, sound ethical standards, morality beyond reproach, integrity and sound conflict management techniques – amongst others. It is, however, advisable that the assessment and monitoring process of the EAPs or environmental consultants be done by an independent agent and in this case the non-governmental organisation that is conversant with EIA process and in particular applicable public participation principles, regulations and guidelines. As further suggested by Sinclair and Diduck (2017), there is a need for new, creative and effective ways which are less formal yet participant friendly. As it was previously noted by Sinclair and Diduck (2017:180) “highly formal procedures impact people’s level of comfort, willingness to participate, and ability to absorb information and fully engage in discussions.” In the wake of these assertions, it follows that there is a need to be considerate of the contextual factors pertaining to the nature and composition of the participants and make suitable adaptations which are relevant to the local realities.

In addition, there should be consideration of local norms on how issues and problems should be handled. Some people have their own traditional procedures on how to address public meetings as well as procedures and norms on how to resolve conflicts which necessarily may not be the same way how EAPs handle issues due to what they have been exposed or inclined to. Unless the process of public participation is done according to local norms, many unresolved issues which even at times may not be central to the process may emanate thus delay the proceedings unnecessarily. What can at times be unfortunate is when the misunderstandings thereof abruptly stop the process entirely. However, though the process should be conducted based on local norms, it should be taken heed that EAPs adhere to applicable professional and ethical standards. In essence, it is virtually impossible that one form of participation fits all types and sizes of development projects as well as all types of participants. It is also worth noting of the fact that consensus is not always possible under all circumstances. In the wake of this, stakeholders/participants should be aware that issues that cannot be resolved may remain as such and this should not cause derailment of the genuine process and its objectives. Quite apparent, however, is that public participation in its current form in the South African EIA procedure remains quite contentious an issue and as such needs concomitant intervention. In the wake of this, there is a need to locate public participation in the legislative framework of South African environmental law as discussed hereunder.

2.7 EIA legislative background in South Africa

The inception of EIA into South African environmental legislation dates way back in the 1980s when Conservation Act (Act 100 of 1982) was promulgated but its practice was not mandatory though it was meant to address decisions concerning development and conservation. However, EIA was not explicitly mentioned in this legislation (Sandham, *et al.*, 2013). Following this enactment, environmental evaluation procedures were developed and published in the form of Integrated Environmental Management (IEM). IEM as an environmental evaluation instrument was irrelevant as it had first world approach in a third world context and as such was perceived differently by proponents and environmentalists (Wood, 2003). In trying to address and improve on these constraints, comprehensive environmental management legislation was promulgated in the form of National Environmental Management Act (NEMA), Act 107 of 1998 (DEAT, 1998). Further improvements with regard to the EIA process were made through the promulgation of guidelines in June 2010 and again through amendments of the act in 2014 and lately in 2017 (Mubanga & Kwarteng, 2020). Through this new approach, more focus is given to impacts associated with the sensitivity of the receiving environment and in order to ascertain this, a listing notice was introduced with the main focus only on activities planned for predefined sensitive areas (DEA, 2010). More importantly, with the promulgation of new environmental legislation and EIA regulations, changes and amendments have as well been effected on the Public Participation Process (PPP). In this context, public participation is therefore a crucial tool for EIA. However, EIA is one amongst many forms in which public participation can be conducted (Glucker, *et al.*, 2013).

“As stipulated in NEMA Section 2 (4)(f) and (o):

- The participation of interested and affected parties (I&APs) in environmental governance must be promoted and all people must have opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured, and
- The environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people’s common heritage” (DEA, 2017:6).

In the wake of the legal provisions stated above, there is therefore a need to ascertain that public participation is conducted in an effective and efficient manner particularly regarding projects that

have adverse effects on the environment. “It is therefore provided within NEMA Section 24(1A) (c) that the person conducting public participation should comply with regulated procedures related to public participation and information gathering through public participation process” (DEA, 2017:6). Furthermore, “it is stipulated by NEMA that any person conducting public participation process should adhere to relevant applicable guidelines as contemplated in section 24 (j). The guidelines have been developed in order to help the proponents or applicants, registered interested and affected parties (RI&APs) and environmental assessment practitioners (EAPs) to understand their obligations and responsibilities with regard to undertaking public participation process comprehensively” (DEA, 2017:6).

The promulgation of environmental legislations and guidelines with pertinence to the regulation of development projects in South Africa has not impacted much on how things are conducted in practice. Observations made are that wetlands are still giving ways to development projects and rivers and other water sources are continuing to be invaded in various ways and forms resulting in negative impacts which are not mitigated. Precisely, despite all the impressive legislations provided, compliance and monitoring in terms of development projects seems to be neglected. This is much so because unsustainable development projects are still continuing within the study area and community members are still impacted negatively.

2.7.1 EIA in the South African context

There is a variety of perspectives and opinions with regard to the meaning of the environmental impacts assessment – hence many different definitions of the same concept. Of the most commonly used and referred to definition is the one according to the Department of Environmental Affairs and Tourism (2000) in which EIA is defined as a process of gathering and evaluating environmental information for the purpose of providing sufficient arguments for the evaluation of overall impact when a value judgement has to be made in order to choose one alternative amongst those provided. Succinctly put, “environmental impact assessment is a systematic procedure for considering expected impacts of a development on the environment before a decision whether to accept or reject the proposed project is made by the competent authority” (DEA, 2014: 10). According to Sandham, *et al.*, (2013), EIA is an essential planning and management tool for providing information during decision-making process regarding likely consequences of development projects. “However, this procedure is conducted before project implementation in order to provide information to decision-makers on the impacts of the proposed action so that environmentally sound and sustainable development can be promoted through the identification of appropriate enhancement and mitigation measures” (Terri, 2018).

Though it can be deduced that EIA definitions are varied, it is however very apparent that these definitions are just explanatory and descriptive in nature with the use of different but synonymous terms and concepts outlining the process and steps undertaken in conducting this procedure. In essence, the EIA definitions provided are not lexical but explanatory and descriptive in nature. Precisely, EIA process is about making investigations and gathering information about the likelihood of the occurrence of desirable and undesirable impacts of a proposed development project on the environment in order to make a decision of either accepting or rejecting such a project. However, in the process of information gathering, direct or indirect interaction is being made with the local community or other stakeholders in terms of consulting and involving them during the application process as well as during project development thereby making public participation an essential component of EIA.

In the South African context, EIA regulation is devolved to provinces whereas development projects of national interest are reviewed and adjudicated at national level (Mubanga & Kwarteng, 2020). This implies that South African EIA system is decentralised. However, in that the substantive nature of EIA is determined by the achievement of its set objectives which include capacitation and accountable decision-making, this therefore is implicit of the notion that EIA system performance in South Africa may vary from one province to the other. This, in essence, may bring into play a notion of inconsistency in terms of level and rigour of compliance, monitoring and enforcement. Of critical significance is that the South African EIA system in its current state is devoid of crucial elements like climate change and aspects on ecosystems (Mubanga & Kwarteng, 2020).

With EIA adjudication and control being devolved to provinces, it therefore implies that the manner in which this process is conducted and monitored will also vary from province to province as well as from one region to the other. Implicit with this is that public participation process will be conducted differently owing to a plethora of factors like EAPs expertise, experience, and level of professionalism as well as other contextual factors at the local areas. Though there is variation in terms of how EIA and public participation are conducted in the different provinces of South Africa, environmental regulations and legislations still provide guidelines on how this should be carried out, however this variation pose a serious point of concern in that even within the same region or area, public participation is likely to be conducted differently thereby yielding different results and this is what this research study seeks to address.

2.7.2 The rationale for EIA

EIA is a procedural instrument that is used to determine and suggest mitigation for the impacts of development on the environment thereby also at the same time having a bearing on the socio-economic well-being of humankind. Basically, it is through EIA that decision makers, and in this context, the relevant department is provided with detailed information to help them make plausible and informed decisions on the environmental impacts of a proposed activity (DEAT, 2000). Also very important is that any form of development in order to cater for human needs should take place within the principles of sustainable development. Accordingly, Murombo (2008) states that development should serve both current and soon to come generations in a fair and just manner. In essence, any form of development should be in a way that as current generation pursues for its needs, future generations should not be denied the same privilege through inconsiderate and injudicious use of the currently available natural resources and opportunities.

2.7.3 South African legislative guidelines for public participation in EIA

Guidelines for EIA as stipulated in NEMA are revised from time to time as being informed by academics, researchers and various stakeholders as well as other processes and circumstances. This usually emanates from deliberations, arguments and contestations by those directly affected by the development impacts and those involved in the implementation of applicable regulations and guidelines. Of course, some reviews of guidelines and regulations are necessitated by ensuing court battles regarding legal interpretations and applications of certain sections and clauses of the act. Furthermore, considerations and reviews are also made with regard to the classification and listing of activities as a legal requirement thereby helping in terms of attending to gaps and some grey areas in the implementation and application of the act. "In this regard, the latest guideline for public participation is the revised and amended version of the one that was published in 2014" (DEA, 2017:211).

More importantly, provisions are made that interested and affected parties make inputs and comments during various stages of the EIA process which are: scoping, assessment and impacts mitigation, review of environmental impact report, and implementation and monitoring (DEAT, 1998). Accordingly, participation of I&APs should be enhanced through all the stages of EIA process (DEAT, 2002).

- **Characteristics of comprehensive public participation**

According to DEA (2017:6), public participation process must be vigorous and inclusive and in order to meet such standards, the following requirements should be adhered to:

- To provide opportunity for all role-players (potential and RI&APs, EAPs, state departments, organs of state, and competent authority) to obtain clear, accurate and understandable information about environmental impact assessments of the proposed activity or implications of the decisions;
- To provide role-players opportunity to voice their support, concerns and questions regarding project application or decision;
- To encourage transparency and accountability in decision-making;

Also noting that the stipulated minimum requirements for public participation as outlined above cannot be applicable to every activity and scenario, it is hereby advised that as determined by certain circumstances, it is imperative to go beyond the determined stipulations for public participation (DEA, 2017). Precisely, as and when the circumstances dictate, efforts should be made that interventions are effected accordingly so that the process goes beyond the stipulated requirements. To do this requires creativity and innovations on the side of the EAP or public participation practitioner. In this regard, the competent authority can also help the process by effecting strict monitoring and compliance. Precisely, there is a need for effective administrative rigour by the relevant authorities. For a comprehensive public participation process to be effected, a set of terms and conditions have to be considered.

- **Terms and conditions to undertake public participation**

It is hereby provided for within environmental legislation that a person conducting public participation should provide competent authority and RI&APs with reasonable opportunity to participate in the public participation process. It is also advisable that the period of December 15 to January 5 be avoided when conducting public participation unless under justifiable exceptional circumstances (DEA, 2017). This implies that public participation process must be conducted during such time that those affected and impacted by the proposed activity may be afforded an opportunity to raise their concerns, fears, and questions and submit their comments and failure to be given this opportunity there can be consideration to redo this process.

DEA (2017:7) has provided guidance as to when public participation should take place:

“Public participation must be conducted before the submission of application for environmental assessment and additional public participation is required where significant changes have been made or significant new information has been added to basic assessment report (BAR), scoping and environmental impact report (S&EIR) and environmental management program (EMPr). The submission of environmental audit report requires that public participation be conducted so as to rectify the shortcomings and amend the EMPr.”

- **Notification process**

Basically any form of development affects the environment which in turn affects lives and livelihoods of people. In the wake of this assertion, informative and proactive efforts have to be made that all potential and I&APs be timeously informed about a proposed development so as to participate and forward their inputs during public participation process (DEA, 2017). Furthermore, “invitations for public participation should be done through public notice advertisement that should be displayed at a visible place on site and also through local newspaper that is accessible to the intended audience” (Appiah-Opoku, 2001:68).

“The nature and state of potential and RI&APs or the sensitivity of the project can be very determinant to the person conducting public participation on the appropriate mechanism to use. For example, separate public meetings should be considered for participants who are historically disadvantaged or people who cannot read or write” (DEA, 2017:245). The issue of language choice and proficiency is very critical in determining the effectiveness and efficiency of public participation since local language promotes maximum participation by the audience and this should be augmented by giving the participants adequate notice prior to the public participation meeting (DEA, 2017). However, Du Pisani and Sandham (2006) observed that the response to invitation to participate in public participation meetings is unsatisfactory. This basically implies that low attendance of public participation meetings by the public denies them an opportunity to voice their concerns and fears about the proposed project. This does not augur well with regard to the nature of public participation as the process is rendered non-participative and ineffective.

“Apart from following standard procedures of inviting I&APs to participate in the public participation meetings for application process, certain stakeholders should be specifically approached and this includes organs of the state, the owner or person who is in control of the land, amongst others, since they are automatically regarded as I&APs” (DEA, 2017:10). To ensure maximum outreach to the RI&APs, local language should be used when serving a notice

or selecting a newspaper and this will help in attending to the local contextual factors like addressing the historically disadvantaged communities or people who cannot read or write. In order to overcome such potential constraints, invitations for public participation meetings should be made on a local media (DEA, 2017). Furthermore, meetings should be held at times and venues which are suitable to the participants and appropriate access to information must be made. More importantly, the following public participation mechanism must be used over and above the stipulated requirements namely: “public meetings, workshops, open days, conferences, press releases, questionnaires, surveys, information lines - amongst others” (DEA, 2017:10).

- **Registered Interested and Affected Parties**

According to DEA (2017:11), “applications made to various organs of the state of which the activities applied for have a duty to make submission of comments on the reports within a period of 30 days and failure thereof will be regarded as having no comment. Basically, the EAP has to consult every organ of the state responsible for administering regulations relating to matters affecting the environment to that application for environmental authorisation.” The issue of transparency and access to information is also very much important. “With regard to access and opportunity to comment on reports and plans, RI&APs should raise issues or comment on the reports and plans through writing and such should be forwarded to the competent authority through the EAP within the specified timeframes and declarations have to be made by the RI&APs pertaining to direct business, financial, personal and other interests they might have in the project” (DEA, 2017:11). The recording of comments and inputs by the concerned role-players cannot be ignored. “During public participation, written comments and plans submitted by RI&APs must be recorded by the EAP in the reports and plans including responses to such comments and such should be attached to reports and plans to be submitted to the competent authority” (DEA, 2017:12). As stipulated by DEA (2017:12), it is hereby commended that all comments received be acknowledged by the EAP and assurance given as to how such comments will be responded to. Furthermore such comments and responses should form part of the final submissions (BAR or S&EIR) to the competent authority.

- **General requirements for EAPs and specialists**

According to the DEA (2014), with regard to general requirements for applications for authorisation, stipulations require that the applicant or the proponent must appoint an EAP at own cost with the responsibility of managing the application. Though it is imperative that the EAPs should be objective in the manner of managing the application, this therefore casts a shadow of

doubt since the same is supposed to be remunerated for the 'good work' done for the proponent. Precisely, that an EAP is appointed and remunerated by the developer is a gross institutional flaw requiring necessary intervention if suspicion for bias in this regard is to be effectively dealt with. This is very unlikely though it is categorically stipulated that the EAPs and specialists appointed in terms of applicable regulations should be independent and have necessary knowledge to conduct the process.

Furthermore, the appointed EAPs and specialists should have thorough knowledge of the applicable laws and be objective through compliance with applicable regulations. This includes being in a position to disclose all material information available to all relevant stakeholders unless that information is censored. More importantly, non-compliance with applicable laws and regulations by the EAP or specialist leads to disqualification and as such the replacement should therefore be found (DEA, 2014). As and when the EAPs have complied with the applicable regulations for public participation and the application for the project to be adjudicated by the competent authority, evaluation of how public participation was conducted becomes necessary. With the review of literature being done, the performance of public participation in terms of procedure and process outcomes with regard to sustainable environmental management remains elusive despite a series of legislative amendments of South African environmental law. This presents areas of knowledge gaps within literature which need to be attended to.

2.8 Knowledge gaps identified

Having studied contributions and findings by some researchers and practitioners concerning public participation, this process has been found wanting in some areas and aspects particularly in practice. Basically, public participation as a process has no pragmatic procedural framework for its implementation that is compatible to the context presented by rural areas like Vhembe district. In actual fact, the current practice of conducting public participation without considering local contextual factors is problematic. Considering the issue of public participation and in view of the ever-changing social landscape due to the nature and composition of civil society, and also the shifting towards new communication platforms, there is a growing concern to be considerate of the needs of the general public and in particular the marginalised societies so that they are not technically excluded in the implementation of this process. Precisely, public participation in EIA has knowledge gaps and areas of paucity that need to be addressed.

- **Inclusivity and representativeness:**

Public participation often struggles to include a diverse range of participants like the marginalised groups in rural areas and this is even made complex by the increased reliance on digital platforms for communication. There is a need to develop a context-based framework for effective and participative public participation considerate of local realities.

- **Capacitation for empowerment:**

The lack of requisite knowledge and skills by community members who are potentially interested and affected by the proposed development projects limits them to have meaningful and deliberative contributions during the EIA procedure. Usually this is due to lack of standardised approaches and directives for training and capacity building for the participants. Providing capacity building opportunities like workshops and training programmes can help empower individuals for effective public participation.

- **Going beyond the requirements:**

Considering the evaluation frameworks for public participation herein discussed, indications are that many public participation engagements only last the duration of the project construction and as such are short-term. There is a need to find effective approaches of monitoring compliance with EMPr specifications even beyond the project implementation phase through effective public participation.

To effectively address these knowledge gaps requires collaboration between policy-makers and practitioners and improvement of frameworks and methodologies used in public participation. This is also a commitment to inclusivity, empowerment and adaptability to the evolving needs of communities with practical policy considerations and legal constraints.

2.9 Chapter summary

This chapter looked at various contributions, comments and inputs by scholars, academics, researchers, practitioners and authors with regard to aspects pertaining to public participation in the context of EIA. Precisely, this chapter focussed on public participation practice around globe as compared to its practice as informed by the South African environmental legislation. Also reviewed in this chapter are issues pertaining to EIA in South African context, rationales for EIA and public participation, types and techniques for public participation; benefits and challenges associated with public participation. However, despite all the pragmatic and plausible environmental legislations and regulations promulgated, sustainable environmental management is still elusive. The next chapter deals with the research methodology.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research design and the methodology of the study. Given the literature review as presented in chapter two, key issues have been identified that are relevant to the study of evaluation of public participation processes in EIAs of development projects in the study area. This chapter also gives a description of the study area as covered by the four identified assessment reports. The details about the geographical and socio-economic attributes of the study area are already covered in chapter 1. The study also shows the evaluation tool for public participation for all the four development projects as well as the criteria used for such evaluation. An outline of how the implementation of public participation process was evaluated and appraised is also provided in this chapter. This was preceded by the appraisal of three evaluation models so as to determine the one suitable for this study. In the light of this, an appropriate framework was developed to collect data on the key issues identified and this has been done through primary and secondary data sources. The data collected was informed by the research questions and the set specific objectives for this study. Further discussions are also made on the applicable techniques and ethical considerations as well as appropriate justifications. This chapter also outlines the research design, study purpose, population, sampling techniques and data collection procedures. In order to effectively manage and analyse data collected, validity and reliability of the instruments used have been discussed as well as how the collected data was analysed.

3.2 Research design

The research design provides for basic strategies required to solicit empirical evidence thus make the research study plausible. This study, sought to evaluate the extent to which Environmental Impact Assessments (EIA) of selected development projects in Vhembe district comply with public participation as stipulated by policy guidelines and regulations provided for within EIA legislation in South Africa. This study relied mainly on qualitative methods of data collection and analysis supplemented by quantitative methods of data collection and analysis. Precisely, this study consists of a mixed method approach which entails qualitative and quantitative techniques for data collection and analysis. “Whilst the qualitative research method is exploratory in nature in that it is an in-depth understanding of underlying opinions” (Maxwell, 2012), “quantitative research method establishes relationships between measurable variables” (De Vos, *et al.*, 2010). Data for this study was collected through primary (questionnaires and interviews) and secondary techniques (documents review). For the primary source of data collection, interviews were

conducted with key informants and EAPs of the sampled development projects and questionnaires were administered to the general public of the respective areas where public participation for such development projects were conducted. Though the collection of data was done through the mixed method, its analysis and interpretation were done simultaneously. The aspect of document review as a secondary source of information considered existing records of EIAs and completed BARs and S&EIR, as well as applicable environmental policy guidelines. Statistical analysis was applied to data that generated values suitable for such form of analysis whereas the use of questionnaires and interview schedules required that data generated thereof be analysed through descriptive and inferential statistics. The research objectives, questions and methodology are summarised in the research matrix (Table 3.1) whereas procedures and methods used in this study are shown in Figure 3.1.

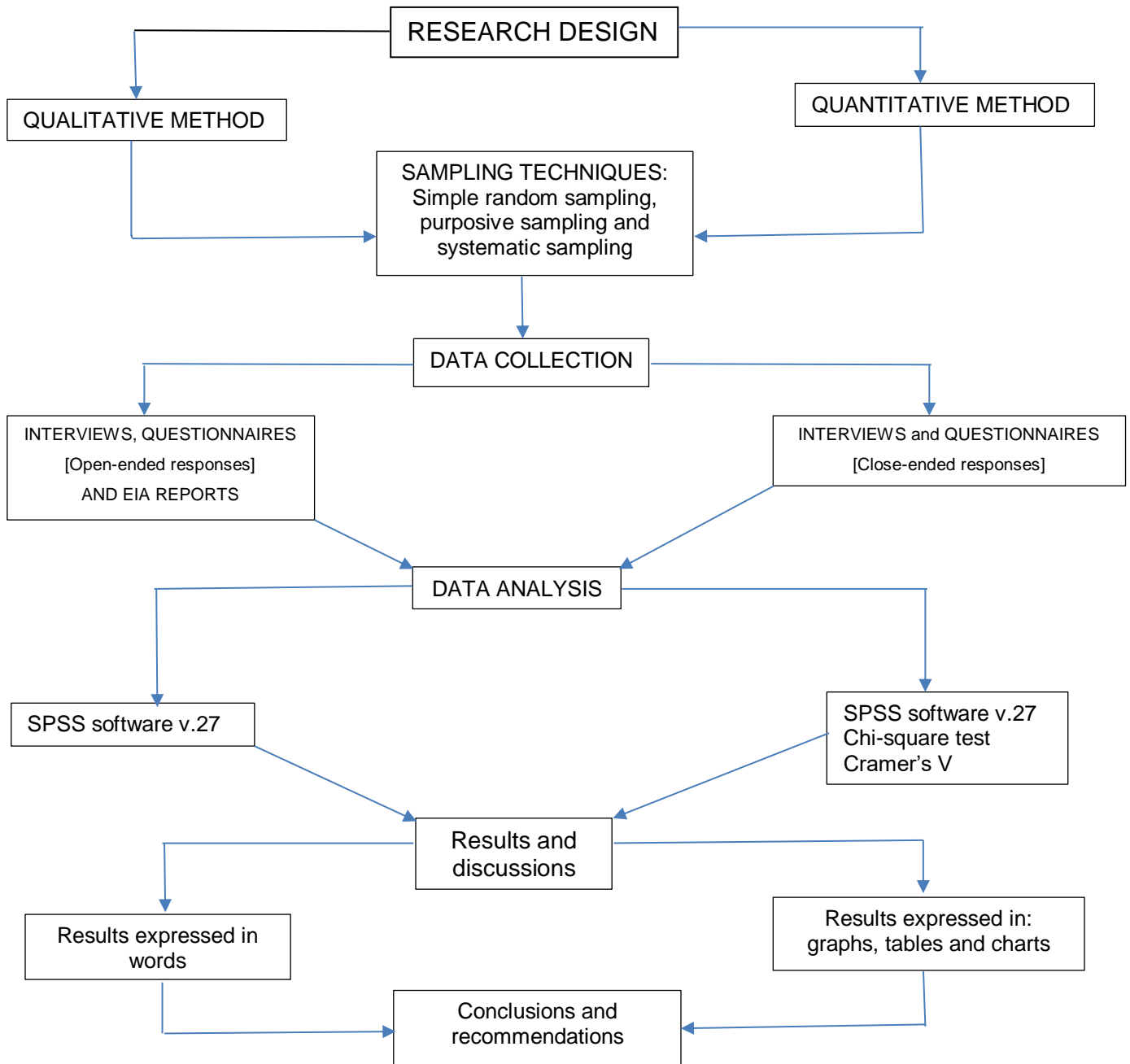


Figure 3.1 Research design

Table 3.1 Research matrix

Specific research objectives	Research questions	Data collection methods	Data analysis
1. To evaluate the community's level of awareness of public participation process in EIA.	To what extent do communities know EIA process and guidelines for public participation?	Questionnaires were administered to community members and students.	1. Quantitatively: statistics analysed through SPSS, Chi-square test and Cramer's V. 2. Qualitatively: development of themes. 3. Hypothesis test done on community members' knowledge of EIA guidelines
2. To assess the extent to which the EAPs have complied with the guidelines for public participation in EIA legislation in South Africa.	To what extent have the EAPs complied with the guidelines for public participation in EIA legislation in South Africa?	1. EIA legislations were reviewed in order to identify guidelines and regulations dealing with public participation in EIAs 2. Assessment of the EAPs compliance in terms of guidelines and regulations for the implementation of public participation in the context of rural area: interviews	1. Document and environmental reports analysis to determine the EAPs' compliance. 2. The use of EAPs' interview responses qualitatively analysed for compliance against applicable EIA guidelines and regulations. 3. Evaluation framework by Hasan, <i>et al.</i> 2018, is adapted for process analysis.
3. To analyse EAPs' public participation practice in relation to community expectations in the rural Vhembe district.	How effective was public participation in the context of EIA undertaken in the different projects in the study area?	1. Interviews with EAPs 2. Key informant interviews 3. Questionnaires administered to the public	1. Interviews with EAPs analysed qualitatively and quantitatively 2. Interviews with key informants qualitatively analysed 3. Hypothesis test done on community members' expectations for attending EIA public participations.
4. To develop a strategic framework for ensuring effective public participation process in conducting EIAs as informed by local context.	How may effective and efficient participation be entrenched in the EIA process?	Results and findings of the study collated to identify key features that inform a new strategy for public participation	Results and findings to inform the design of the new context-based framework for public participation.

3.3 Public participation evaluation frameworks for the development projects

In that EIA as a system has a regulatory framework which guides how it should be conducted, it is therefore implicit of the fact that public participation process as an integral component of this system is subjected to evaluation. Accordingly, Mubanga and Kwarteng (2020:2) identified process performance evaluation as being dichotomised:

- 1) **“Procedural performance** which is an evaluation of whether EIA processes complied with the country’s EIA legislation and
- 2) **Substantive performance** which is an evaluation of whether EIA objectives are being achieved (e.g. sustainable development and environmental protection).”

In terms of evaluation, South Africa, is considered as one amongst many countries leading in terms of establishment and plausibility of EIA system but Mubanga and Kwarteng (2020) concede that the system does not fully incorporate SEA, economic systems and climate change. Different authors and researchers (Nadeem and Fischer, 2011; Schroeter, *et al.*, 2016 and Hasan, *et al.*, 2018) have developed evaluation frameworks for the process of public participation in EIA yet in various set ups so as to improve the process and make it more relevant to applicable legislations.

3.3.1 Public Participation Evaluation Framework by Nadeem and Fischer (2011)

As proposed by Nadeem and Fischer (2011:38), “EIA public participation practice evaluation framework should include the following main components: legal requirements, effectiveness of the methods used, access to quality information, timing and venue of public consultation, time given for comments, composition and awareness of the public involved, methods and framework for consultation, consideration of the public concerns in the EIA report and incorporation of public concerns into the final decision; and finally transparency of decision making process. EIA procedural stages are not directly stipulated within the framework but made reference of in the attributes of public participation process. The first component of the framework is aimed at establishing the extent to which legal requirements for involving the public and stakeholders during the EIA process were taken into account.” Also very notable with the framework is that the nature of public participation is expressed in terms of categories like contextual, methodological, substantive and influential; and these categories are aligned to the major components already identified. Links have been developed between the questions determining the attributes of the actual process in practice and the identified major components or evaluation criteria.

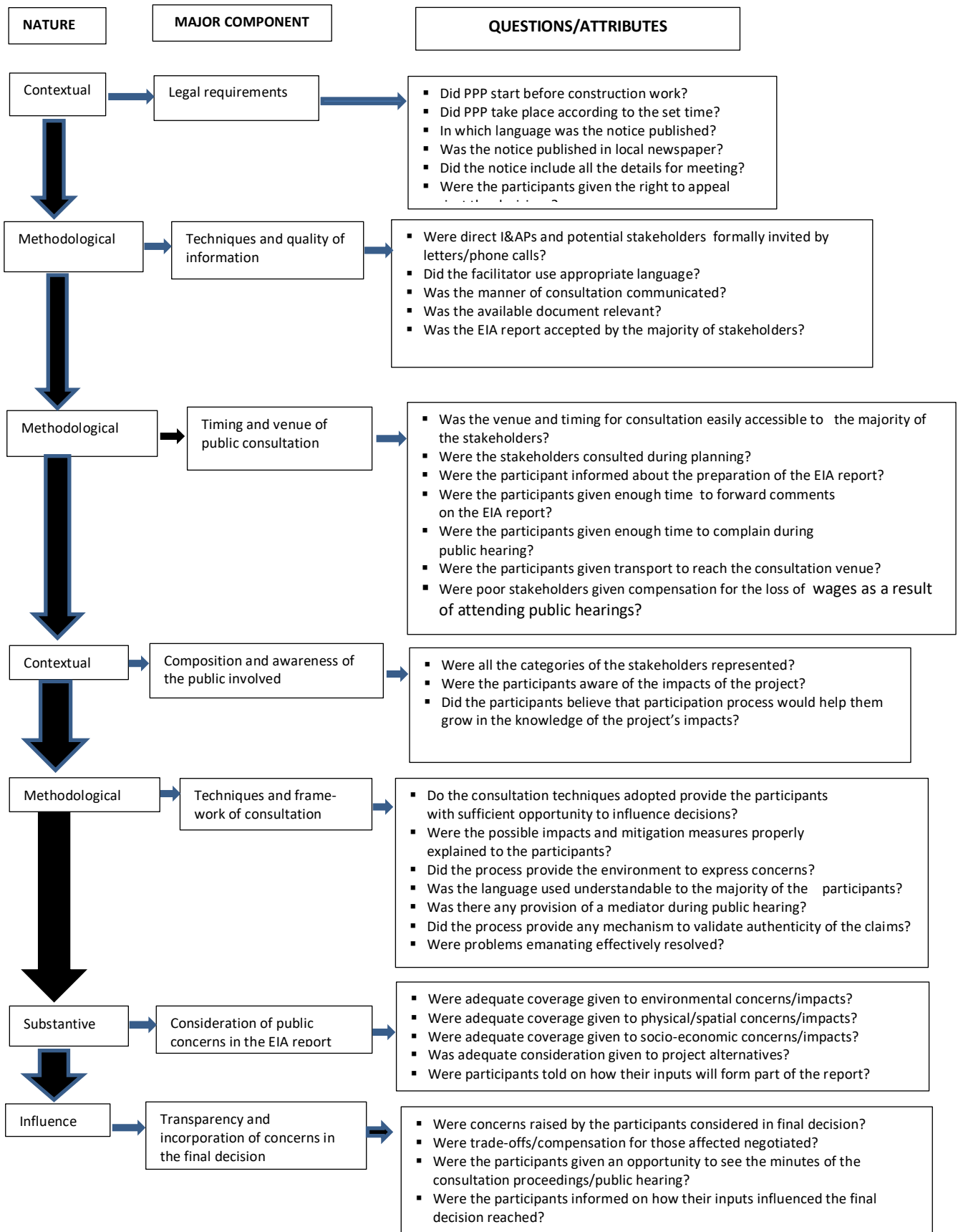


Figure 3.2 Framework for the evaluation of public participation in EIA (Nadeem & Fischer, 2011).

The evaluation framework by Nadeem and Fischer, like any other evaluation framework has its own shortcomings and areas of concern. In that public participation as a process is dynamic owing to the context in which it is carried out and other related influential factors, the same cannot be applicable under the current context. Accordingly, Schroeter, *et al.* (2016:118) concede that “assessing the quality of public participation process on a multi-dimensional scale of criteria and sub-criteria is very complex.” One critical problem identified in this framework is that participation process is varied owing to the different contexts presented. The framework looks simple on paper but yet intricate when considering its application in practice thereby posing challenges in terms of time and financial resources. Again, Nadeem and Fischer’s evaluation framework is mainly focused on the procedural aspect of public participation and not on the substantive dimension of the process. With this type of framework, ecologically incompatible development projects can still receive authorisations and in the process the issue of social and environmental injustice will still prevail. This implies that the issue of sustainable development cannot be effectively catered for by this evaluation framework.

3.3.2 Public Participation Evaluation Framework by Schroeter, *et al.* (2016)

In order to improve on the multi-dimensional criteria and sub-criteria as reflected in the evaluation framework proposed by Nadeem and Fischer (2011); Schroeter, *et al.*, (2016) proposed a conceptual framework comprised of eight dimensions. This approach entails theoretical analysis coupled with empirical data from the participants thereby leading to the conversion of criteria and sub-criteria into eight new compound dimensions with the matching material. “Expectancy captures the wishes and hopes of participants before the start of a participation process. These expectations are important because participants use them as benchmarks for evaluating the results and quality of the process” (Schroeter, *et al.*, 2016:122).

“Transparency relates to the availability of all relevant information whereby the mandate given to participants is often an issue of controversy and misconceptions between initiators and participants thereby often leading to misunderstandings” (Schroeter, *et al.*, 2016:123). In the wake of this, anything that the participant perceives as merely orchestrated in order to convey a positive image for democratic legitimisation, participants may develop apathy to continue participating thus reject the proposed development project as a result. Another important dimension is fairness. “This refers to the subjective impression that all participants were treated equally and all concerns and inputs could be openly voiced and had an equal opportunity to be discussed” (Schroeter, *et*

al., 2016:123). The concept fairness is very subjective and as such is dependent on individual's perception of what it means. As informed by cultural and religious inclinations, what may be perceived by some as being respectful when participants are quiet, others may consider it as being uninterested. In essence, the concept of fairness is problematic particularly when it is considered a dimension for the evaluation of public participation process since its evaluation cannot be objective (Schroeter, *et al.*, 2016).

Furthermore, next on the line of discussion is the dimension effectiveness. According to Schroeter, *et al.*, (2016), effectiveness has to do with the achievement of the set goal for the process of participation. In practice, public participation process can be regarded as being effective if it leads to wise decision making process and a catastrophic development project is prevented, for instance. In essence, if the involvement of the public through public participation can help influence the change in the design of the project to a better one which is considerate of principles of sustainable development then that can qualify to be considered an effective process. Another dimension for process evaluation is efficiency. In practice, "efficiency is determined by comparing the efforts that went into organising and conducting public participation process with the efforts for normal political decision processes without public participation" (Schroeter, *et al.*, 2016:123).

The dimension of own impact is one other evaluation indicator suggested by the participants during qualitative interviews (Schroeter, *et al.*, 2016). Generally, participants in the public meetings for EIA would like their concerns, opinions and expertise considered for decision-making. They usually feel valued when their contributions form part of the end product. "The last dimension, satisfaction, generally summarises the judgement of the participants about the quality of both the process and the outcome" (Schroeter, *et al.*, 2016: 123). Put differently by Mubanga and Kwarteng, (2020), satisfaction as a dimension can be expressed both as procedural and substantive performance. The evaluation framework designed by Schroeter, *et al.*, (2016) is abstract in terms of its application particularly because it cannot be linked to the EIA stages. Another area of concern is that evaluation criteria for this framework are not categorised in terms of procedural or substantive performance of the process. However, a rather much improved and detailed framework for public participation that entails stages for EIA, public participation expectations as aligned to EIA stages yet linked to the required activities for public participation and the relevant evaluation criteria is the one developed by Hasan, *et al.*, (2018).

Table 3.2 Evaluation framework for public participation in EIA (Schroeter, *et al.*, 2016)

Main characteristics	Sub-criteria
1. Inclusiveness	a) Negotiation platform
	b) Equal contribution
2. Information exchange	c) Exchange of knowledge
	d) Common base of the information
	e) Transparency
3. Influence on political decisions	f) Common understanding of the process
	g) Effectiveness/Efficiency
	h) Shared understanding of impacts of results

3.3.3 Public Participation Evaluation Framework by Hasan, *et al.* (2018).

Though the evaluation framework for public participation process as proposed by Hasan, *et al.*, (2018) is more comprehensive and detailed because it links EIA stages with key public participation questions and criteria; and at the same time explains the required activities for effective public participation in detail, its criteria for process evaluation have not been categorically stated. However, what the framework provides in detail is how public participation for EIA should and must be conducted. In actual fact, an effective public participation process must equally address procedural performance and substantive performance. Procedural performance is determined by compliance to the applicable legislation whereas substantive performance is gauged by achievement of the set goals and objectives of sustainable development and public participation effectiveness (Mubanga & Kwarteng, 2020).

Table 3.3 Evaluation framework for effective public participation in EIA (Hasan, *et al.*, 2018).

EIA stages	Public participation questions	Activities for effective public participation	Evaluation criteria
Screening	<p>Were members of the public identified?</p> <p>Were local people contacted?</p> <p>Was the public consulted while preparing Initial Environmental Examination?</p>	<p>Stakeholders and local community to be identified before the project starts</p> <p>Local community to be consulted regarding impacts, project activities and opportunities for jobs.</p> <p>Local people must be consulted before IEE preparation</p>	<p>Inclusiveness and early involvement</p> <p>Equality and fairness</p> <p>Transparency</p>
Scoping	<p>Was there public participation during identification of environmental impacts?</p> <p>Were details of the project presented to the people?</p> <p>Was the public informed about how comments were made?</p>	<p>Local people should be consulted to harness local knowledge.</p> <p>Appropriate media should be used to share project information with the local people.</p> <p>ToR must be shared with the people for reviews and comments.</p>	<p>Influence and sharing of information.</p> <p>Process transparency and access to information.</p> <p>Transparency and fairness.</p>
Impact analysis	<p>Were the public expectations entertained?</p> <p>Was the draft EIA made available for reviews?</p>	<p>All issues raised by stakeholders must be considered.</p> <p>Appropriate media used to share draft EIA with local people.</p>	<p>Equality and fairness.</p> <p>Process transparency</p>
Mitigation and impact management	<p>Was the public consulted about identification of mitigation measures?</p> <p>Were participants addressed on how to engage with the facilitators?</p> <p>Was the project design made available?</p> <p>Did EIA report address concerns of the public?</p> <p>Did the final EIA report contain the summary of public comments?</p> <p>Was the public consulted to make inputs on post-evaluation of impacts?</p>	<p>Public consultation must be made to identify the mitigation measures</p> <p>Stakeholders must be informed about how they raise their concerns.</p> <p>Project design must be made available to the public.</p> <p>EIA report must address the public comments and reviews.</p> <p>Final EIA report must contain summary of issues raised by the public.</p>	<p>Process transparency and access to information.</p> <p>Complete information sharing</p> <p>Disclosing Information</p> <p>Interaction and access to justice and fairness.</p> <p>Public influence in decision making.</p>
EIA report review	<p>Did the decision making process include inputs of the participants?</p>	<p>Public inputs must be incorporated in decision making process.</p>	<p>Process transparency.</p> <p>Process influence and justice.</p>
Implementation and follow up	<p>Are there plans to involve the public in implementation and monitoring phase of EIA process?</p>	<p>Local community members must be involved in the implementation and monitoring phase of EIA process.</p>	<p>Process outcomes:</p> <p>Effectiveness, efficiency, access to justice and fairness</p>

3.3.4 Evaluation of the process implementation for the EIA development projects

The evaluation frameworks for public participation as elucidated on by Nadeem and Fischer (2011), Schroeter, *et al.* (2016) and Hasan, *et al.* (2018) have strong points and areas of concern in their various structures. Though one framework can be an improvement of the other, there is no particular evaluation framework that comprehensively addresses all aspects of public participation compatible to this research study. For instance, the EIA public participation evaluation framework by Hasan, *et al.* (2018) is the most comprehensive and detailed of the three evaluation frameworks in that it provides a plausible link between EIA stages and public participation questions thereby providing a list of necessary activities on how the process must be conducted in practice. However, its evaluation criteria needed adjustments in order to make it (framework) more compatible in terms of the evaluation and appraisal of public participation policy implementation for the EIA development projects identified. In the wake of this, public participation evaluation framework by Hasan, *et al.* (2018) has been adapted accordingly in terms of its evaluation criteria (Table 3.3) so that it can effectively address and influence the objectives and research questions for this study.

The evaluation criteria for public participation implementation for the four selected EIA development projects in the study area focused on issues pertinent to: early involvement, inclusiveness/representativeness, transparency, access to information, equality and fairness, public influence, implementation and follow-up, and establishment of value and trust. Succinctly put, this research study has subjected the implementation of public participation policy of the identified development projects to both procedural and substantive performance and in the process addressed its compliance with applicable EIA legislations; and social and environmental justice issues. However, in order to achieve this, public participation evaluation framework by Hasan, *et al.* (2018) has been accordingly adopted for the evaluation of the selected development projects since it fits the context of this study, though it needed some adjustments with regard to the evaluation criteria. In the wake of this, an evaluation tool has been developed as informed by this evaluation framework (Table 5.5). This evaluation framework has also influenced the design and contents of the questionnaire for the general public and interview schedules for both Environmental Assessment Practitioners and the key informants (Appendices 3, 4 and 5) which then serve as complimentary to the evaluation tool (Table 5.5).

3.3.5 EIA public participation evaluation criteria adopted for this study

The process of evaluation can be defined differently depending on the applicable context. This therefore also informs the types of criteria that can be developed for the evaluation of a particular programme. According to Chompunth (2011:98), “evaluation criteria are the standards used in the evaluation of the programme in which a judgement of effectiveness can be made.” The evaluation criteria developed in this context have been largely influenced by the research questions and objectives set for this study. In that one of the objectives of this study is to develop a context-based framework for effective public participation in practice and thereby promote sustainable development, the determination of evaluation criteria relevant for the four selected EIA development projects in the study area is therefore mandatory. In essence, the adoption of these evaluation criteria basically provides the manner in which the four selected EIA development projects have been evaluated in terms of their procedural and substantive performance with regard to public participation for EIA within the context of sustainable development. Though the evaluation criteria adopted for this study are based on the process evaluation framework proposed by Hasan, *et al.*, (2018), there is an influence of inputs and contributions by other academics like Nadeem and Fischer (2011), amongst others. The list of evaluation criteria applied to this study is summarised in Table 3.4.

Table 3.4 Summary of evaluation criteria applied to this study

Evaluation criteria		Explanation	Requirement for effectiveness
Procedural criteria	Early involvement	Participation process begins early in order to ensure that all participants are involved.	The public must be involved early in the planning process and this involvement must continue throughout (Hasan, <i>et al.</i> , 2018).
	Representativeness	Public participation process must be inclusive of all stakeholders and interested members of the community.	People that participate in a consultation process must comprise a broad representative sample of those affected and interested in the project (Andre, <i>et al.</i> , 2006).
	Transparency	The participation process is transparent in order to let the public see what is going on and how decisions are made.	The procedural ground rules and roles of the participants must be clearly defined and participation process must be driven by shared initiative (Hasan, <i>et al.</i> , 2018).

	Access to information	Participants must be provided with opportunity to access all information relevant for decision-making process.	Public participation must provide participants with high quality and understandable information in order for them to participate in a meaningful way (Andre, <i>et al.</i> , 2006)
	Equality and fairness	The process provides for equal and balanced opportunities for all participants to participate effectively.	The participation process is conducted in an independent and unbiased way (Hasan, <i>et al.</i> , 2018).
Substantive criteria	Influence	Participants are provided with opportunities to make inputs for decision-making process.	The process must focus on sharing the decision-making process and the balance of power amongst the stakeholders (Rowe & Frewer, 2000)
	Follow-up and feedback	This process involves dialogue between stakeholders and officials and the project information is shared amongst all stakeholders in a two-way communication format.	Public participation process must keep participants informed of the progress and a variety of techniques must be used to give and receive information, including face-to-face discussions (Andre, <i>et al.</i> , 2006).
	Values and trust	The process fosters value development of the process and trust amongst all stakeholders involved.	The process must aim to rebuild trust and relationships amongst stakeholders and their different interests and values must be considered (Hasan, <i>et al.</i> , 2018).

3.4 Case study design and case study selection

In order to evaluate the extent to which Environmental Impact Assessments (EIA) of selected development projects in Vhembe district comply with public participation as stipulated by EIA policy guidelines and regulations provided within EIA legislation in South Africa, a case study approach was adopted. This approach is suitable when investigating how I&APs were consulted and when establishing the extent to which their concerns were addressed in the Environmental Impact Reports (EIR). For this study, a case study approach was chosen as the main research strategy to explain and conduct an in-depth study of public participation process in the rural context. Four case studies, one from each of the local municipalities (Makhado, Thulamela, Musina and Collins Chabane) were carefully sampled in order to gather credible data and to avoid misrepresentation. In this study, development projects focused on several areas of development:

road upgrade, construction of residential township, resort construction and crocodile breeding farm (Table 3.5).

Table 3.5 Study sites in the Vhembe district

Parameter	Musina Project	Mhinga Project	Matsa Project	UNIVEN Project
Municipality	Musina Local Municipality	Collins Chabane Local Municipality	Makhado Local Municipality	Thulamela Local Municipality
Project type	Construction of residential township	Establishment of a crocodile breeding farm	Construction of a resort	Upgrading of access road to tar
Assessment type	S&EIR	BAR	BAR	BAR
Application date	May 2015	November 2014	May 2018	May 2019
Current status	Completed	Completed	In progress	In progress

3.4.1 Messina 4 MT township/residential development

According to the applicable legislation, NEMA (Act 107 of 1998) as amended, Environmental Impact Regulations of 2010 read in combination with government notices R.544, R.545 and R.546; scoping and full EIA process is required since this is an activity that entails the physical alteration of an unoccupied land for residential area and has a total area exceeding 20 ha and in the case in reference the land targeted for clearing is 85 hectares. In terms of R.545, Activity 15, “physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more; except where such physical alteration takes place for linear development activities; or agriculture or afforestation where activity 16 in this schedule will apply” (DEA, 2010). According to the Background Information Document (BID), the proposed project entails the construction of 896 residential units, 5 business units, a crèche, municipal area, a primary school and public open spaces. The total area of the farm is approximately 100 hectares.

Masingita Geo-Environmental consultants, as independent environmental assessment consultants, were appointed by Musina Local Municipality to facilitate the EIA process whereby they were required to identify and assess the significance of potential environmental impacts of

the proposed residential establishment. In that the application for the authorisation was done in May 2015, the EAP responsible for this project made use of applicable legislations as indicated above. Masingita Geo-Environmental consultants also developed the Background Information Document (BID) for the project. The EMPr, which is a framework providing guidelines to the developer on how best to implement mitigation measures and management regulations outlined in the S&EIR during construction and operation phases of the project, was also developed and attached.

3.4.2 Mhinga project: Xatumbu crocodile breeding facility

This project envisaged the clearing of the vegetation on the site for crocodile enclosures and the targeted area is 5 hectares. According to the Background Information Document, the targeted area entailed the construction of small enclosure for hatchlings to be kept for two years, 650m² large enclosure with two ponds to house 2 000 three year old crocodiles. Luvuvhu River is located just 1km from the proposed site and this is where the dams for the project would receive water. This project is located in Collins Chabane Local Municipality which was originally part of Thulamela Local Municipality according to the 2002 municipal demarcations. According to applicable legislation, NEMA (Act 107 of 1998) as amended, Environmental Impact Regulations of 2010 read in combination with government notices R.544, R.545 and R.546, this project requires Basic Assessment since the targeted area for vegetation clearance is only 5 hectares. Accordingly, the listed activity under R.544 of NEMA states that “the concentration of animals for the purpose of commercial production in densities that exceed thirty square metres per crocodile at any level of production, excluding crocodiles younger than 6 months requires Basic Assessment” (DEA, 2010:87).

For the processing of the application, the proponent and developer, LP-Mhinga crocodile capture and commercial breeding, required the expertise of a registered environmental assessment practitioner. The environmental consultants, P-Enviroholdings, identified and assessed the significance of potential environmental impacts of the proposed crocodile breeding facility on behalf of the developer. In that the application for the authorisation was done in November 2014, the EAP made use of 2010 EIA regulations amongst other applicable legislations. The EAP also developed the Background Information Document (BID) for the project. The EMPr, which is a framework providing guidelines to the developer on how best to implement mitigation measures

and management regulations outlined in the Basic Assessment Report (BAR) during construction and operation phases of the project, was also developed and attached.

3.4.3 Matsa project: Tshakamate Resort construction

Tshakamate Resort, as the developer, proposed the construction of a resort and associated activities at Ha-Matsa village in Nzhelele area within Makhado Local Municipality in Vhembe District. According to the Background Information Document, the proposed area entails the construction of additional facilities namely: 8 one-bedroom chalets, Lapa, heritage building, entertainment facility, bar, storeroom, offices, conference hall, parking space, swimming pools and a playground. For this project, Escon Consulting (Pty) Ltd on behalf of Tshakamate Resort had to conduct the requisite environmental assessment.

The BAR for this process was conducted in accordance with GNR No. 326 of 2017 in terms of (NEMA, Act 107 of 1998) EIA regulations of 2017. In terms of EIA regulations (GN R.327), the proposed activity is listed as Activity 27 which entails: the clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation, and as such this project requires Basic Assessment process (DEA, 2017). Precisely, the targeted area for the construction of this project is 18 hectares. The EAP was required to identify and assess the significance of potential environmental impacts of the proposed resort facility. In that the application for the authorisation was done in May 2018, the EAP responsible for this project made use of 2017 EIA regulations amongst other applicable legislations. The EAP also developed the Background Information Document (BID) for this project. The EMPr, which is a framework providing guidelines to the developer on how best to implement mitigation measures and management regulations outlined in the Basic Assessment Report (BAR) during construction and operation phases of the project, was also attached. However, the EMPr attached was poorly designed and as such was initially rejected before being reviewed. The rejection was due to the objectives which were not Specific, Measurable, Attainable, Realistic, and Time bound (SMART) – hence a directive that it be revised and subjected to another public participation process. This directive by the CA was eventually complied with.

3.4.4 University of Venda Project: Access Road Upgrade and a Bridge

According to the Background Information Document, Mawedza Geo-Environmental Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner by Nyeleti Consulting on behalf of the University of Venda to solicit Environmental Authorisation (EA) for the upgrade of 1.6 km access road (of which 500m portion of the road has been issued with EA) to tar from the R524 to the University campus. The proposed project included the construction of a new bridge as well. This project is for the 1.1 km portion of the road which requires EA in terms of NEMA EIA Regulations of 2014 (DEA, 2014). According to the Background Information Document this access road crosses over Mvudi River which is within the wetland. The project is located 2 km west of Thohoyandou town on the portion of a farm Beuster 253 MT and Palmaryville 254 MT within Thulamela Local Municipality in Vhembe district.

The proposed development is, in terms of Environmental Impact Assessment Regulation of 2014, a listed activity: Listing Notice 1, Activity 12, 19 and 27 and Listing Notice 3, Activity 12 and 14 (DEA, 2014). Accordingly, this project requires Basic Assessment process. The following specialist studies were claimed to have been conducted in order to determine potential risks and impacts associated with the proposed development: ecological assessment, heritage impact assessment and geo-technical studies.

3.5 Data source

- **Primary and secondary data**

Data was collected through primary (questionnaires and interviews) and secondary techniques (documents review). For primary source of data collection, interviews were conducted with EAPs and key informants of the identified development projects and questionnaires were administered to the general public of the respective areas where the projects are located. The aspect of document review as a secondary source of information considered existing records of EIAs and completed BARs and S&EIR as well as applicable environmental policy guidelines.

For the purpose of this research study, document review forms part of secondary source of data. Secondary source of information considered viewpoints and opinions of authors, researchers and scholars on public participation in EIA. Accordingly, documents for review are comprised of publications on issues concerning EIA and guidelines as provided in the applicable environmental legislation. Other documents forming part of this review include, amongst others: Basic

Assessment Reports (BARs) and Scoping and Environmental Impact Report (S&EIR) of the identified development projects in the four local municipalities of Vhembe district. This exercise was done in order to evaluate public participation as part of EIA for the development projects within the study area. This data collection method helped in conducting a review and assessment of the nature of the guidelines for public participation process provided within the EIA legislation in South Africa. Also through this method, a framework was developed for ensuring effective public participation process in conducting context-based public participation process. In this regard, objectives 1 and 4 are addressed.

3.6 Study population

This study focused on development projects in the four local municipalities in the Vhembe district. In this regard one development project that requires authorisation was identified for each local municipality within Vhembe district. “A target population is a specific collection of elements or the specified group of many cases from which a researcher draws a sample and to which results from the sample are generalised” (Neuman, 2011). In this context, the population refers to the development projects requiring EIA in Vhembe district. However, it is from a range of development projects which require EIA procedure that four of them were sampled for the purpose of this study (Table 3.5). Units of analysis were identified on the basis of the population identified above. Basically, for every development project, there are other stakeholders involved and for the purpose of this study the following units were identified: community members, key informants and EAPs or environmental consultants. As pointed out by Sinclair and Diduck (1995), “public participation involves on-going communication between project proponent and the local community/I&APs with the aim of improving decision making during planning, designing, and implementation and monitoring phases of the project.”

3.7 Sampling methods and size

Sampling is a procedure of identifying individual members of the population. This is made with a purpose of making statistical inferences thereby establishing general characteristics of which the whole population can be associated with. In this regard, sampling becomes a time-convenient and cost-effective tool necessary to avoid the complexity of conducting a research involving everyone within the population (McMillan, 2008). In simple terms, “a sample is a representative of the population that helps in determining information necessary to meet the objectives of the study and is thus more manageable to work with than the entire population” (Ramataboe, 2015).

Implicit with this assertion is that the type and aim of the study determine the form of sampling techniques which can be used to obtain the appropriate sample and required data. In this study, as dictated by the set specific objectives, random sampling method was used. The nature of this study also permit the use of non-random sampling method.

3.7.1 Simple random sampling

Simple random sampling method provides every individual within the population equal chance of being selected. This method of sampling is unbiased and its results conclusive (McMillan, 2008). In simple random sampling, every individual in the population has an equal chance of being selected for the sample. This sampling method is more suited to relatively homogenous populations with little variation amongst individuals (Gupta, *et al.*, 2021). This type of sampling is relevant to the aim of this research study. It is this type of sampling in which one case has been chosen from each of the four local municipalities with the expectation that studying each case will bring about informed generalisation of the findings. With reference to this research study, the four development projects have been randomly sampled due to their legal requirement for EIA, high public interest and their potential to cause extensive harm to the earth's systems. Precisely, of the four randomly sampled development projects, each of the four local municipalities is represented.

Basically, development projects sampled for this study were based on EIA documents collected from 2010 to 2019 within Vhembe district. The collected EIA documents from which sampling was done ranged from private to public and as such include: road construction, filling stations, farms, resort construction and several other activities within the four local municipalities in the district namely Thulamela, Makhado, Musina and Collins Chabane. Of the several EIA documents presented by Thulamela Local Municipality, the one for UNIVEN access road upgrade was randomly selected. Musina Local Municipality presented a variety of other EIA documents (except road upgrade) and one for residential development was randomly sampled. At Makhado Local Municipality, road upgrade and residential development EIA documents were put aside since they were already sampled in other local municipalities; and of the EIA documents available, the resort construction development project was sampled for this study. With the already sampled EIA documents in the other municipalities not forming part of the sample, from the rest of the documents presented by Collins Chabane Local Municipality, the EIA document for the farm development project was eventually randomly sampled.

Furthermore, two of the sampled projects are public meaning that access to information is possible: road upgrade and residential development project whereas the other two projects are private: crocodile breeding facility and resort construction. Regarding private projects, this implies that access to information is censored due to the issue of privacy and issues pertaining to environmental ethics. Also in that the two of the sampled development projects (resort construction and road upgrade) were on-going during the research study, this provided the researcher with the opportunity to attend public participation meetings so as to have first-hand information.

3.7.2 Systematic sampling

In soliciting data from the local communities, systematic sampling technique was used. In this context, questionnaire respondents were picked up in an unbiased manner in order to represent the population of affected communities in the locality of the four selected development projects. Simply put, regarding the quantitative aspect of this study, sampling targets were drawn from the vicinity of the four identified projects in the four local municipalities within Vhembe district. For the use of questionnaire survey in this study, 401 respondents in the four identified local communities completed the survey. To calculate the sample size, the following formula was used:

$$\text{Sample size} = \frac{Z^2 \times p(1-p)}{e^2} \div \left(1 + \frac{Z^2 \times p(1-p)}{e^2 N} \right)$$

Where N =population size, e =Margin for error and z =z-score

In this regard, “population size refers to the total number of people in a group that is supposed to be respondents whereas margin of error is the percentage that indicates how much one can expect the survey results to reflect views of the overall population” (<http://www.surveymokey.com/mp/sample-size-calculator/>). For the four development projects in reference, sampling of the respondents was done based on the population size according to the 2011 census. The confidence level was based at 95% and the margin of error at 9%. Based on the geographical areas where the development projects are located, 475 questionnaires were issued and those returned were: 102 (of 10 524 people) from Mhinga, 100 (of 5 573 people) from

University of Venda, 102 (of 31 133 people) from Musina Town and 97 (of 2 670 people) from Matsa.

3.7.3 Purposive sampling

This is the sampling method based on the description of the researcher. In this regard the researcher determines the criteria for sampling. Participants are sampled to be part of the study because they are conversant with what is being studied and as such they are more informed (Sarantakos, 2013). The participants for this study involved EAPs who have conducted EIA meetings of the selected development projects in the study area. The main aim of using purposive sampling in this regard was to allow the researcher to solicit views, opinions and ideas from participants who are knowledgeable, well informed and have better comprehension of public participation process in EIA. Basically, four EAPs, one from each of the selected development projects were purposively sampled for this study.

3.7.4 Snowball sampling

This method of sampling is used by researchers when the subjects are difficult to trace (McMillan, 2008). This type of sampling technique is a non-probability method of sampling commonly used by the researcher when there is difficulty in accessing all members of the target group (Abdulrahim, *et al.*, 2021). Owing to the need to conduct in-depth interviews with community members who were conversant with public participation meetings due to their previous experience of attending such meetings elsewhere in the past, snowball sampling method was used to identify such subjects as key informants. By identifying one participant meeting the set criteria, other participants within the community were as such identified through the information received from the initial participant. In essence, one identified participant led to the identification of another participant within the participants. Through this sampling method, three participants were sampled per development project selected in the study area, thus making a total of twelve (12) key informants.

3.8 Methods of data collection

The methods identified for this study are influenced by the research design and the type of data required to address the research questions and the stated specific objectives. For the purpose of this study, data was collected through documents review, content analysis, questionnaire survey and interviews with EAPs and key informants. The questionnaires (401) and interview schedules

(16) used in this study entailed both open-ended and close-ended questions. More importantly, the quality of data collected is very essential in achieving the aim of this study as well as drawing research conclusions accurately.

3.8.1 BAR and S&EIR review

Four development projects have been sampled to ensure that this empirical study is systematic. As defined by Creswell (2009:13), “a case study is a strategy of inquiry in which a researcher explores in depth a programme, event, activity and process on one or more individuals.” For the purpose and scope of this research study, cases of development projects in the four local municipalities of Vhembe district of the Limpopo Province were identified. The need to follow this pattern of doing this research is to avoid generalisation but to stick to the specifics as per departmental requirements for environmental authorisation. This type of data collection method helped with regard to assessing public participation practice by EAPs in relation to compliance with applicable environmental legislations of South Africa as carried out in the marginalised rural areas of Vhembe district (as entailed in the basic assessment, and scoping and environmental impact reports). A checklist for document review was used to evaluate environmental reports in terms of their contents and compliance with applicable EIA legislations and regulations (Table 5.2).

3.8.2 Questionnaire survey

In order to solicit data from members of the identified local communities, semi-structured questionnaires were administered. Precisely, the general public within the four local municipalities where the development projects are located were targeted as respondents and the semi-structured questionnaires were distributed to them. In this study questionnaires were restricted to two forms of questions: close-ended questions and open-ended questions. These questions helped the researcher to collect data related to the process of public participation and as such addressed objectives 1 and 3 of this study. Questionnaires were regarded as a suitable method of data collection with community members since it is economical to administer and also puts less pressure on the respondents. This method of data collection also helps to maintain uniformity in terms of responses which are compatible for analysis by SPSS software.

Table 3.6 Stratification of the administered questionnaires in Vhembe District

Number	Sampling area	Type of Municipality	Population 2011 census	Number of Questionnaires Issued	Number of Questionnaires Returned	Gender		Percentage of Questionnaires returned
						Female	Male	
1	University of Venda	Local	5 573	121	100	57	43	24.9%
2	Musina Nancefield	Local	31 133	116	102	54	48	25.4%
3	Mhinga Village	Local	10 524	120	102	43	59	25.4%
4	Matsa Village	Local	2 670	118	97	61	36	24.3%
	Total	4	49 900	475	401	215	186	100%
	Average/Total	1	12 475	118.75	100.25	401		25%

3.8.3 Interviews with EAPs

For the purpose of this study, interviews were conducted with the EAPs who facilitated EIA meetings for the sampled development projects. This was meant to get in-depth information from those with first-hand information. These participants have first-hand information and better comprehension of the EIA procedures and have conducted public participation process for the respective development projects. This method of data collection also provides flexibility to both the interviewer and the respondents in terms of responses and making follow-ups. Owing to time constraints, telephonic interviews were used to collect data regarding information pertinent to public participation process within the study area. Accordingly, the interview schedule was semi-structured and as such was restricted to two forms of questions: close-ended and open-ended questions. Furthermore, the instrument was designed in the manner that generates primary information and as such included a variety of questions. This instrument assessed EAPs compliance with regard to EIA guidelines for public participation as well as community's expectations on public participation. It was basically structured to address objectives 2 and 3 of this study. It was very pertinent that the researcher remained neutral during the interview process.

3.8.4 Interviews with key informants

Interviews with key informants were conducted in order to gain in-depth insight of public participation within the context of identified projects in Vhembe district. For this study, face-to-face interviews were conducted with the 12 key informants and questions were structured as informed by the research objectives. The key informants were sampled from community members who attended public participation meetings of the four development projects and have previous experience from attending other EIA meetings prior to these ones. This type of interview helped in terms of making follow-up questions and also provided opportunity to probe for more information. Though the interview atmosphere was conducive in terms of being open and free to participate, participants did not agree to audio-recording of the sessions for the fear of purging. However, the interview sessions were very effective and the participants were free to even voice their concerns, fears, suggestions and expectations, though they needed to be reigned in at times.

3.9 Validity and reliability of research instruments

Research data is collected with the use of various devices. For this research study, data was collected using questionnaires, interview schedules and review of environmental impact reports. Validity and reliability of the research instruments are very much crucial in ascertaining that results are accurate and conclusions drawn are plausible. In essence, a good research study must yield valid and reliable results. In order to ensure satisfactory results for this study, measures regarding validity and reliability were done on questionnaires and interview schedules used.

3.9.1 Validity

The issue of validity of the research instruments with regard to this form of study is of prime importance. According to Jackson (2006), validity determines if the instrument measures what it is intended to measure since the achievement of this goal makes the findings thereof valid as well. Expressed differently by Zikmund, *et al.*, (2013), “validity refers to the extent to which the study findings accurately depict the phenomenon being studied. The following types of validity are important for consideration: content validity, face validity, criterion validity and construct validity.” In considering all these forms of validity, this helped in terms of developing the questionnaires and interview schedules that are valid in terms of the information that they solicited thus ensuring that the findings thereof are valid. Through the process of instrument validation, verification is made to ensure that the instruments applied measure what they are intended to measure, that they are the most accurate instruments to use when compared with other instruments and this entails as well the manner and purpose of what they measure (Jackson, 2006). To ensure content validity, the interview schedule and questionnaire were first piloted and necessary changes effected.

3.9.2 Reliability

Reliability refers to the consistency of the numerical results as brought about by the use of the tool for measurement and as such the same results will be provided under the same circumstance every time it is applied (Delpont, 2005). For this study, the interview schedule and questionnaire were piloted thus ensuring detection of errors and effecting necessary changes thereof. This is necessary because perfect reliability is usually rare and as such steps need to be taken to improve the reliability of the research instruments to be used. Pretesting is necessary in order to check research instruments if they yield the intended results (Hilton, 2015). This form of exercise helps to refine the instrument by reducing chances for technical errors and glitches. Furthermore, the

researcher ensured that precautionary measures are taken into consideration to ascertain reliability of the instruments used in this research study. All the instruments used in this research study have multiple variables which helped in obtaining data with regard to the research aim and objectives. Where applicable, the five-point Likert scale was used as it provided respondents with options for choice.

3.10 Data analysis

Data analysis is a way of establishing meaning from the text provided thus making interpretation of the data collected (Creswell 2009). The manner in which data for this study was collected required that reasonable time be allocated for the researcher to organise and prepare data for analysis. Data generated was analysed using both qualitative and quantitative methods. On the other hand, data generated from EIA documents and policy reviews, open-ended questions of interviews and questionnaires was qualitatively assessed in order to solicit views and opinions of the respondents. However, data generated from closed-ended questions of interviews and questionnaires required quantitative analysis. This was done making use of descriptive statistics in Statistical Packages for the Social Sciences (SPSS), Chi-square test and Cramer's V. "Chi-square determines questions of relationships between two independent variables that report frequencies of responses or case" (McMillan, 2008:265). According to Nardi (2006), Chi-square measures independence of two variables and also inquires whether what the investigator observed is significantly different from what the investigator would have expected to get by chance alone. This test is commonly used to measure association of variables and also calculate the significant difference in the expectations of the community by their demographics (Kothari, 2007). Precisely, in that a mixed method was used in data collection it therefore follows that the analyses thereof was done accordingly.

3.10.1 Objective 1: Evaluation of community's level of awareness of EIA guidelines and regulations for public participation.

In that data collected from members of the identified local communities was done through the use semi-structured questionnaires which were restricted to two forms of questions: close-ended questions and open-ended questions, it therefore required that analysis be done qualitatively and quantitatively. "Qualitative data analysis required the building of themes and this also involves continual reflection about data collected since it is an on-going process" (Creswell, 2009:184). For this research objective, analysis of data solicited brought into perspective local communities'

viewpoints and opinions regarding public participation processes of the identified development projects in the study area. As such, the research question pertinent to objective 1 was as well addressed where community's level of awareness of public participation and their roles in EIA were determined.

As dictated by the nature of this research study, quantitative method was used to analyse some the data solicited from 401 respondents. This involved data coding and entry, data processing, data analysis and presentation; and data interpretation. Descriptive statistical data collected was processed through SPSS, Chi-square and Cramer's V which have programs to analyse and present data (Essien, 2015). Quantitative information from close-ended responses in the questionnaires is hereby presented in the form of tables and graphs which were developed in order to demonstrate data findings for objective 1. In addition to the data solicited being qualitatively and quantitatively analysed, hypothesis test was done on community members' knowledge of EIA guidelines and regulations for public participations.

3.10.2 Objective 2: Assessment of the extent to which EAPs complied with EIA guidelines and regulations for public participation.

For the purpose of this study, data collected through documents review, content analysis, questionnaire survey and interviews with EAPs and key informants was analysed qualitatively. For this study, face-to-face interviews were conducted with the 12 key informants and questions were structured as informed by this research objective. However, the four EAPs were subjected to telephonic interviews sessions due to time constraints. The data analysed was based on cases of development projects in the four local municipalities of Vhembe district of the Limpopo Province were identified. This type of data helped with regard to assessing public participation practice by EAPs in relation to compliance with applicable environmental legislations of South Africa as carried out in the Vhembe district and the documents analysed entailed information on the Basic Assessment Reports (BAR), and Scoping and Environmental Impact Reports (S&EIR). A checklist for document review was developed and utilised to evaluate environmental reports in terms of their contents and compliance with applicable EIA legislations and regulations (Table 5.2). However, evaluation criteria used for this analysis were informed by the evaluation framework for public participation as developed by Hasan, *et al.*, (2018). This evaluation framework was used as a yardstick to determine EAPs' compliance with regard to how they conducted EIA for the

respective development projects as per applicable guidelines and regulations for public participation.

3.10.3 Objective 3: Analysis of EAPs' public participation practice in relation to community's expectations

For this objective, data collected through questionnaires and interviews with EAPs and key informants was qualitatively and quantitatively analysed. This was informed by closed-ended and opened-ended questions as reflected in the research instruments administered to the respondents. "Qualitative data analysis is basically an inductive process of organising data into categories and identifying relationships among the categories" (McMillan and Schumacher, 1993:479) whereas quantitative data analysis involved data coding and entry, data processing, data analysis and presentation; and data interpretation (Essien, 2015). Descriptive statistical data collected was processed through SPSS, Chi-square and Cramer's V which have programs to analyse and present data. Quantitative data solicited from the close-ended responses in both questionnaires and interview schedules is herein presented in the form of tables and graphs. Finally, hypothesis test was done on community members' expectations for attending EIA public participation.

3.11 Ethical considerations

The issue of ethics with regard to research study is of prime importance. In essence, research study should not infringe the rights of the participants or even put their lives in danger – amongst other important issues for consideration. Basically, the entire conduct of the study strictly adhered to all applicable ethical principles of a scientific research. In this regard, the ethical issues adhered to during this study included permission to study, informed consent and confidentiality.

3.11.1 Permission to study

The research proposal for this study was presented to the Department of Geography and Environmental Sciences before being submitted to the University's Higher Degree's Committee for approval. The researcher solicited the ethical clearance certificate (SES/19/ERM/07/0805) with the University ethics committee and as such obtained permission to conduct this research study (Appendix 1). Furthermore, authorisation to conduct the research study was also obtained from Vhembe District Municipality wherein the four local municipalities are located (Appendix 2).

3.11.2 Informed consent and confidentiality

The researcher disclosed the purpose of the study to the participants. The rights of the participants in the context of applicable principles were also discussed. Participants were also assured that their personal information will not be divulged but solely used for the purpose of the study. The participants in this research study took an informed consent and as such participated voluntarily. Assurance was also given that the issue of confidentiality will be highly considered. Participants were also assured that there was no risk or financial costs to be incurred by them being involved in the study. Furthermore, the issue of participant's rights was projected as an issue of primary concern.

3.12 Data collection limitations

What was of primary concern, as anticipated like with several other research studies of this nature, were the issues of time and finances which were not readily available. Secondly, some people showed reluctance in participating during the research survey due to the lack of service delivery in this area since people have already developed apathy with anything related to the municipalities. Also very notable was the issue that once people's expectation for jobs was not met they showed high level of reluctance to be involved in the research study. And lastly there was a concern with the issue of red tape in soliciting EIA documents of the development projects from the authorities concerned since not all EIA documents were presented or accessed.

3.13 Chapter summary

This chapter focused on the methods used to investigate the research problem. The chapter also gave a detailed description of the selected development projects as informed by the Background Information Documents (BID). The chapter also adopted the evaluation tool for public participation of all the four selected development projects. A detailed explanation has also been made with regard to how data was collected and analysed. The research questions formulated in chapter one informed the research design and sampling procedures for this study. Methods of data collection were also discussed as well as the issue of ethical considerations. As is commonly the case with most of the research studies, constraints encountered during the investigation were also identified. Considerable efforts were made through effective control measures to ensure accuracy in the data collected and analysed.

CHAPTER 4: COMMUNITY'S LEVEL OF AWARENESS OF EIA PROCESS

4.1 Introduction

This chapter focuses on community's level of awareness of EIA process based on the data obtained from the Environmental Impact Assessments of selected development projects in the Vhembe district. Data was collected through questionnaires administered to the sampled community members in the study area. Interviews were also conducted with the twelve key informants from the four development projects. Also provided in this chapter are the detailed findings on the level of comprehension of the EIA guidelines for the public participation process by the communities in the study area. This chapter also gives results on a number of issues arranged in different themes. It is also expected that the results of the EIA projects would provide information on different views of public participation process. Furthermore, the presentation within this chapter also gives a detailed analysis of variables determining the level of awareness of communities in terms of EIA guidelines for public participation process in the study area. In this chapter, as determinants for the community's level of awareness of EIA process, variables identified include demographics of community members namely: gender, age, educational status and prior experience in attending public participation meetings. Microsoft Excel 2013 was used to capture data which was then transferred into SPSS (Statistical Package for Social Sciences) for analysis. Captured data was coded according to the levels of measurement and analysed using SPSS (SPSS version 27).

4.2 Respondents' demographic characteristics and level of EIA awareness

Different factors and issues interact in multiple networked spatial and linkages to produce a variety of issues on public participation process in the Vhembe district. However, to understand the process of public participation there is a need to be conversant with the substructures of the demography that shape and inform the core of the community members involved. Social demographic variables reflect the outcomes of the survey findings and existing literature. The results show demographic information of the study respondents. Accordingly, respondents for the crocodile breeding facility in Mhinga village were comprised of 43 females and 59 males making a total of 102. The situation was almost similar to that of the construction of residential complex at Musina in terms of the total number of respondents but differed regarding gender composition thereof in that with the latter project females (54) were more than males (48). The access road upgrade project for UNIVEN reflected 100 respondents of which 43 were females and 57 males.

The resort construction at Matsa village had 97 respondents of which 61 were females and 36 males (Table 3.5).

With regard to age, the highest frequency for the four development projects in terms of respondents was amongst the youth (18-35 years at 58.1%) with the second highest being that of the middle aged group (36-45 years) at 33.4% and the lowest being that of the elderly (>55 years) at 8.5%. Accordingly, this can be attributed to high unemployment rate amongst the youth in South Africa thus confirming their availability during weekdays when the survey was conducted. According to StatsSA (2022), the unemployment rate has increased to 63.9% for the group aged 15-24 years old. On the other hand, unemployment stood at 42.1% for the 25-34 age group thus prompting the government to find ways to combat youth unemployment.

4.2.1 Gender and awareness of EIA

This section dealt with questions and issues based on how public participation for EIA should be conducted as well as the necessity of this process. This also included the determination of objectives of conducting EIA as a prerequisite for the authorisation of the proposed listed development projects. The results hereby reveal that most of the respondents (66.1%) do not understand EIA procedure and how public participation should be conducted during this process. Precisely, 71.6% of the women lack precise knowledge and comprehension of how public participation for EIA is conducted and this can be attributed to their low level of education as compared to their male counterparts. Also notable in this context is that most of the respondents with regard to the development projects are females (53.6%). The reason being that most of the women are more often found at home most of the time than men during data collection. Though there is a variance in terms of level of awareness of public participation for EIA between males and females, the general depiction is that only 33.9% of the respondents have the knowledge of the process in reference. This is a clear indication that the majority (66.1%) of them do not understand this process. The results of the data generated through the questionnaire indicate that more females (53.6%) attended EIA project meetings than it was the case with males and this can be attributed to their availability since they don't have work engagements during weekdays like it is the case with males (Table 4.1). As noted by one of the key informants from the resort development project at Matsa village:

“Most women have been left on their own to fend for their children by their migrant husbands who are in Gauteng in search of better survival means.”

Table 4.1 Gender and EIA awareness.

			Gender		Total
			Female	Male	
Do Not Understand (DNU) /Understand	Don't understand	Count	154 ^a	111 ^b	265
		% within DNU/Understand	58.10%	41.90%	100.00%
		% within Gender	71.60%	59.70%	66.10%
	Understand	Count	61 ^a	75 ^b	136
		% within DNU/Understand	44.90%	55.10%	100.00%
		% within Gender	28.40%	40.30%	33.90%
Total	Count	215	186	401	
	% within DNU/Understand	53.60%	46.40%	100.00%	
	% within Gender	100.00%	100.00%	100.00%	

4.2.2 Knowledge of the process of EIA and age

Findings of the survey in Table 4.2 indicate that the elderly (73.50%) did not know EIA process as compared to the other age groups. Basically, the level of process awareness amongst the three groups; youth, adults and the elderly is generally very low being 34.3%, 35.1% and 26,5% respectively. This gives an overall knowledge level at 33.9%. However, there was no statistically significant differences (Table 4.6) in the levels of awareness of the process of EIA by age groups and this can be due to the lack of exposure to EIA issues. As pointed out by one of the community leaders:

“The problem with these people is that they attend EIA project meetings with their own agendas”
(Key informant from Musina development project).

And in this regard, job opportunities are always at the top of their priorities and not the knowledge of EIA process. To them, nothing matters more than getting job opportunities thus find means to survive or improve their quality of life.

Table 4.2 EIA awareness and age

			Age			Total
			Youth	Adults	Elderly	
DNU/Understand	don't understand	Count	153 ^a	87 ^a	25 ^a	265
		% within DNU/Understand	57.70%	32.80%	9.40%	100.00%
		% within Age	65.70%	64.90%	73.50%	66.10%
	understand	Count	80 ^a	47 ^a	9 ^a	136
		% within DNU/Understand	58.80%	34.60%	6.60%	100.00%
		% within Age	34.30%	35.10%	26.50%	33.90%
Total		Count	233	134	34	401
		% within DNU/Understand	58.10%	33.40%	8.50%	100.00%
		% within Age	100.00%	100.00%	100.00%	100.00%

Each superscript letter denotes a subset of age categories whose column proportions do not differ significantly from each other at the .05 level.

4.2.3 Educational status and level of EIA apprehension

With regard to the level of education of respondents, most of them (54.1%) have less than grade 12 whereas very few (15.5%) of them have post-grade 12 qualifications. Table 4.3 shows the level of awareness of the process of EIA by education status. It was hypothesised that the more educated one is, the better the understanding of the process of EIA. However, findings show that there were significant differences in the proportions of respondents who indicated they understood EIA process by education status (Table 4.3).

Table 4.3 Educational status and level of EIA apprehension

			Education			Total
			<Grade 12	Grade 12	>Grade 12	
DNU/Understand	Don't understand	Count	138 ^a	81 ^a	46 ^a	265
		% within DNU/Understand	52.00%	30.60%	17.40%	100.00%
		% within Education	63.60%	66.40%	74.20%	66.10%
	understand	Count	79 ^a	41 ^a	16 ^a	136
		% within DNU/Understand	58.10%	30.10%	11.80%	100.00%
		% within Education	36.40%	33.60%	25.80%	33.90%
Total		Count	217	122	62	401
		% within DNU/Understand	54.10%	30.40%	15.50%	100.00%
		% within Education	100.00%	100.00%	100.00%	100.00%

Each superscript letter denotes a subset of Education categories whose column proportions do not differ significantly from each other at the .05 level.

4.2.4 EIA process insight and employment status

Tables 4.4 shows the level of awareness of EIA process by employment status. The results reveal that those who are employed (27.9%) showed the lowest level of awareness when it comes to how the EIA procedure is conducted. This can be attributed to lack of interest in the process since their employment brings them some sort of contentment. This concurs with the observation made in a study of public participation in Bangladesh in which amongst other factors Hasan, *et al.*, (2018:14) found that “local people expected positive impacts on their livelihoods as well as opportunities for jobs when they attended EIA public hearings.” However, regarding the employment status of the participants, this seems not to be a significant variable in determining the level of EIA knowledge amongst community members. Basically, irrespective of their employment status, most community members do not know how public participation for EIA is conducted owing to the fact that most of them are getting exposed to EIA process for the first time (Table 4.4.).

Table 4.4 EIA process insight and employment status

			Employment			Total
			Not Employed	Self-employed	Employed	
DNU/Understand	Don't understand	Count	192 ^a	42 ^a	31 ^a	265
		% within DNU/Understand	72.50%	15.80%	11.70%	100.00%
		% within Employment	67.60%	56.80%	72.10%	66.10%
	Understand	Count	92 ^a	32 ^a	12 ^a	136
		% within DNU/Understand	67.60%	23.50%	8.80%	100.00%
		% within Employment	32.40%	43.20%	27.90%	33.90%
Total		Count	284	74	43	401
		% within DNU/Understand	70.80%	18.50%	10.70%	100.00%
		% within Employment	100.00%	100.00%	100.00%	100.00%

Each superscript letter denotes a subset of employment categories whose column proportions do not differ significantly from each other at the .05 level.

4.2.5 Previous experience and EIA comprehension

In this context, it was hypothesized that people who had attended public participation processes before understood the process of EIA. Findings of the study in Table 4.5 show that inasmuch as a less proportion of people who had attended the public participation process before (59.70%) did not understand the purposes of EIA, compared to 63.50% who were attending for the first time, the difference was not large enough statistically to represent a statistically significant difference (Table 4.6). This can be due to ill-conceived perceptions about the purpose of EIA meetings.

Table 4.5 Previous experience and EIA comprehension

			Previous experience		Total
			First time	Attended before	
DNU/Understand	don't understand	Count	148 ^a	117 ^a	265
		% within DNU/Understand	55.80%	44.20%	100.00%
		% within Previous experience	63.50%	59.70%	66.10%
	understand	Count	85 ^a	51 ^a	136
		% within DNU/Understand	62.50%	37.50%	100.00%
		% within Previous experience	36.50%	30.40%	33.90%
Total		Count	233	168	401
		% within DNU/Understand	58.10%	41.90%	100.00%
		% within Previous experience	100.00%	100.00%	100.00%

Each superscript letter denotes a subset of previous experience categories whose column proportions do not differ significantly from each other at the .05 level.

4.3 Notification and advertisement for public participation in EIA process

There are various sources of information by which respondents got to know about the proposed projects. The different types of sources of information may be dependent upon the level of exposure within the community or at times even the level of education of the community in reference. In essence, percentage of modes of communication differ from one community to the other and in this regard there are various determining factors.

4.3.1 Modes of communication used to notify community members about projects

The results illustrate that the highest form of media through which people knew about the EIA projects in their vicinity were community meetings. Basically, rural communities commonly interact together through community meetings since they are the most convenient mode of communication. Also of note is that public participation invitations made during community meetings have a capacity to reach out to many members of the community. The lowest form of media which was used based on the results were in some instances the radio. This is because the radio is not a compulsory mode of communication when it comes to public invitation for

participation, hence its low percentage in terms of the number of community members it has reached out to.

Communication through newspapers was not common within the study areas where the EIA projects took place. With the newspaper as a mode of communication, the challenge is that not everyone had access to such a mode of communication since it has to be bought and this is also compounded by the fact that the language used was English which is not a native language particularly to the unlearned members of the rural community. Basically, newspapers, though being stipulated as a mode of communication as per EIA regulations, are found to be ineffective largely because they are not readily available to all and also due to the fact that most community members have low educational status. Precisely, according to this study most of the respondents have less than grade 12 in terms of their educational qualification thereby implying that only a very few of the community members will find the newspaper a convenient mode of communication for them. Though the most commonly used means of communication of late are social media platforms, like Facebook, WhatsApp and twitter, amongst others, the only drawback in this regard is that they are not the stipulated modes of communication as per EIA legislations and as such their use did not gain much traction.

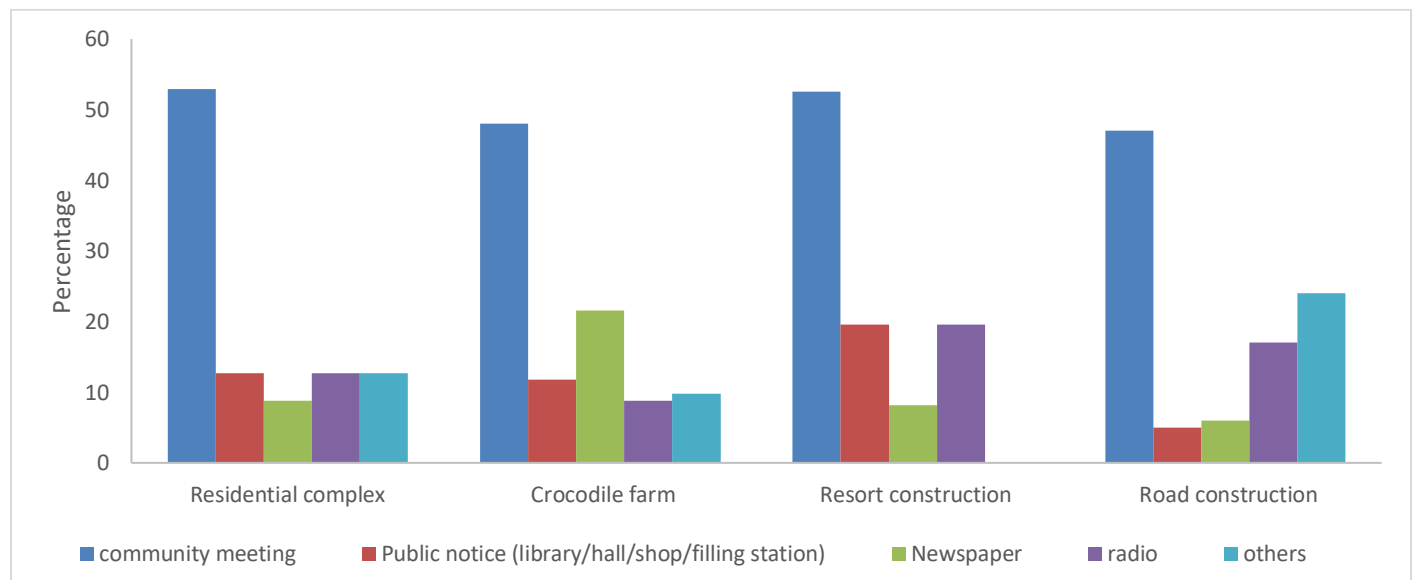


Figure 4.1 Modes of communication regarding the introduction of the projects.

4.3.2 Effective mode of communication for public participation in EIA projects

With reference to Figure 4.2 the effectiveness of method of communication cannot be the same everywhere and every time. This differs from one area to another and from one community to the other. However, effectiveness in this regard is determined by the number of community members who have responded to the invitation for public participation. Put differently, effectiveness can be determined by the magnitude of the turn out to the meeting as determined by the mode of communication used for invitation. The rate of success differs from one mode of communication to the other. Generally, a considerable number of the participants preferred community meetings whereas a small number of respondents preferred other methods of communication whilst the lowest preferred form of communication is the newspaper (3.4% n=16). The newspaper as a mode of communication is least preferred due to its inconvenience in terms of means of access and the language used since English is not the language most participants are conversant with due to their low level of educational status (Table 4.3).

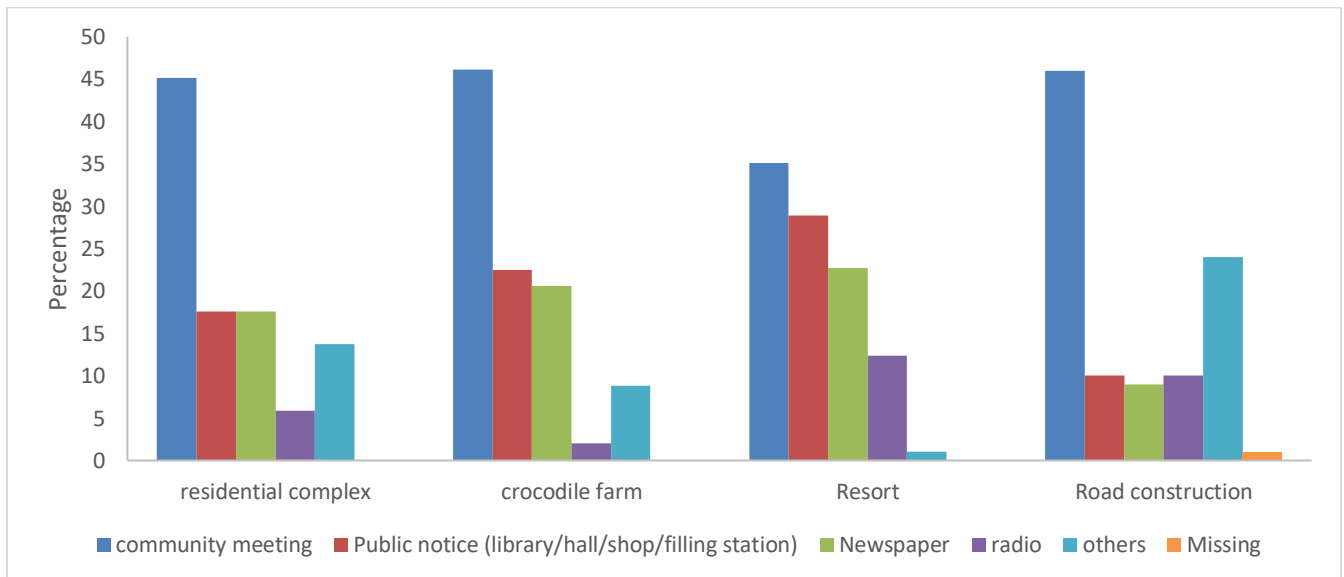


Figure 4.2 Type of media platforms preferred by the public for EIA projects

Taking into consideration that most of the respondents have less than grade 12 in terms of their educational qualifications, it therefore follows that also a significant number of them got the information about the invitation for public participation meetings through community meetings rather than newspapers. Also at the base of the ladder in terms of modes used for the invitation for public participation is the onsite notice. With some of respondents not being formally aware of the invitations it is therefore indicative of the fact that despite following the standard procedure for

notification by EAPs as stipulated in EIA legislation, the projects in reference did not receive the required level of publicity.

In terms of EIA regulations, invitations for public participation should be done through public notice advertisement that should be displayed at a visible place on the site and also through local newspaper that is accessible to the intended audience (DEA, 2017). The finding in this regard is that members of the public who received the invitation for public participation through the stipulated modes of communication as per EIA legislation (local newspaper and public notice on site) only constitutes a very small portion of the respondents. This is clearly indicative of the fact that the majority of the community members are not conversant of the legislative requirement for invitation for public participation as stipulated by NEMA and applicable statutes.

To the majority of the respondents, their preferred mode of communication for the invitation for public hearings are community meetings. This is implicit of the fact that despite the compliance by EAPs to EIA regulations for the invitation of the community members for public participation meetings, most of them still believe that the effective mode of communication to them is through community meetings rather than public notices on sites and local newspapers as stipulated by EIA regulations. This therefore means that unless these preferred and effective methods of communication are incorporated into EIA legislation for public participation, EAPs will have difficulties in continuing to abide by applicable public participation specifications as stipulated in the EIA regulations. Furthermore, it is explicit therefore that the majority of the participants do not even know that the issue of invitation by public notice and local newspaper is a legal requirement for the EIA procedure.

4.4 Reasons for public involvement in the EIA process

The results pertaining to reasons for public participation for the selected development projects illustrate that the respondents (68%) show an agreement with the notion that public participation is a democratic right. This can be attributed to political orientation amongst the local communities regarding issues of rights particularly regarding the issue of service delivery. The same notion can as well be observed with regard to the involvement of members of the community that it is a legal requirement for EIA. The results with regard to this show that the many respondents (67,2%) know that the involvement of the public during EIA meetings is a legal requirement. Furthermore, the results with regard to reasons for public participation indicate that most of the respondents (67.9%) also agree with the notion that by involving members of the local community during public

participation provide an opportunity for the exchange of information with the environmental consultants. The trend in terms of agreement regarding reasons for public participation seems to be the same in that there is majority agreement (70.5%) with the notion that public participation process helps in involving the public regarding decision-making process. Furthermore, though there is an agreement with most of the respondents (60.5%), that the application for authorisation cannot be approved without the record of public participation, results hereof show that some respondents are not aware of this regulation. Almost similar observation was made regarding the notion that public participation provides an opportunity for interaction by different stakeholders (Appendix 6).

- **Public participation in EIA process is a democratic right**

Whilst it is a clear objective that public participation creates a platform for those affected by the development opportunity to have a say (Petts, 2003), the apathy to be part of public participation by the elderly can be attributed to the use of inappropriate modes of communication which do not appeal to them – hence their low level of attendance. Public participation is necessary as people who are historically disadvantaged are given opportunity to make contributions. In this study area, the majority of the respondents fall in this category and as such make public participation even more necessary as they are afforded opportunity to participate and raise their concerns. Though most of the respondents agree with the notion that public participation is their democratic right, some of them are still not sure (Appendix 6).

- **Public participation is a legal requirement for EIA**

The findings hereby depict that with regard to public participation for EIA projects being a legal requirement, some of the respondents disagree whereas most of them are unsure (Appendix 6). This implies that any form of overlooking this process by EAPs would invite litigation measures or protests as it has commonly been the case in most of the local municipalities in Vhembe district. Lately, protests have turned out to be a weapon in the hands of the disgruntled in this region and even elsewhere in South Africa. This observation mirrors that of Enriquez-de-Salamanca (2021) in that disgruntled community members usually resort to protests.

Quite precisely, in that environmental decisions made by the relevant authorities have a bearing on the welfare of members of the local community, it would rather be unfair and unjust to deny the public opportunity to participate in EIAs (Hartley & Wood, 2005). Basically without public participation, EIA becomes devoid of a very critical component without which project legitimisation

is compromised. In essence, public participation should be inclusive meaning that all stakeholders should be involved (DEA, 2017). Implicit with these assertions is that public participation is a mandatory legal requirement of EIA and without it, the public is deprived of a formal way of addressing their fears and concerns as well as making meaningful contribution towards decision-making.

- **Opportunity for the exchange of information through public participation**

According to the findings, there is a significant support that public participation provides an opportunity for stakeholders and public to exchange information (Appendix 6). Only a few of the respondents disagreed with this notion. However, as pointed out by Canter (1996), public participation as a process benefits both the ordinary public and the agency in that they both exchange necessary information crucial for decision-making. This sentiment has been echoed by Andre, *et al* (2006) in stating that public participation stimulates discussion amongst different stakeholders thus resulting in better projects development. This implies that whilst experts provide the public with technical information and expertise, the public in return provides them with indigenous local knowledge thus enhancing collaborative governance and ensuring that development projects are ecologically sustainable. However, in some instances community members are denied opportunity to engage fully and in the process they are denied better understanding of the process. For instance, one key informant said:

“As locals we are left with no understanding of how a specific project will affect our lives. Sometimes there is minimal consultation with leadership structures only and the message is then passed on to the community particularly if the community is divided. The way public participation and consultation are conducted during the EIA processes leaves us feeling that we have no say in the proposed projects” (Key informant from Mhinga area).

- **Public participation helps to involve the community in decision making**

The finding in this regard is that most of the respondents disagree with the notion that public participation helps to involve the community in decision-making. Only a handful of the respondents agree (Appendix 6). In that the process of public participation involves interaction amongst stakeholders whereby information is exchanged does not guarantee that all the inputs made will be incorporated in decision-making. If public inputs are not considered for decision-making, this may in a way dampen the level of participation and in the process stakeholder trust will wane away regarding the decisions made. With the public not assured that their inputs will be

considered for decision making their support for the process and the project will not be steadfast. Also of concern is the manner in which EAPs conduct the process of public participation. For instance, one of the respondents said:

“Sometimes the EIA practitioners are not honest. They are biased, corrupt and at times exaggerate projects’ benefits to the community and as such mislead us so that we accept their proposed project during public participation meetings” (Key informant from Musina).

- **Public participation is a requirement for authorisation of project application**

With only some of the respondents agreeing to the notion that public participation is a requirement for project approval, and most of them being unsure, it therefore implies that the majority of them are not conversant with EIA regulations for authorisation (Appendix 6). Implicit with this finding and assertion is that once the public knows that without public participation there is no consideration for authorisation for the project application, pressure groups may develop with the sole objective of derailing the whole process for their own greedy interests.

4.5 Discussion on the findings concerning communities’ demographics

This discussion is based on the results presented with regard to the level of communities’ awareness of EIA guidelines and regulations for public participation concerning development projects within the study area.

4.5.1 Correlation between level of awareness and communities’ demographics

This section presents analysis and interpretation thereof with regard to communities’ level of awareness and their demographics from a quantitative perspective. A Chi-square test was used to test the hypothesis set in chapter one. Chi-square, according to McMillan (2008:265), can determine “questions of relationships between two independent variables that report frequencies of responses or cases”. According to Nardi (2006), Chi-square measures independence of two variables and also inquires whether what the investigator observed is significantly different from what the investigator would have expected to get by chance alone. Chi square is commonly used to measure the association of variables. In order to determine perceptions of community members, Chi-square test was used. This helped to establish differences in the perceptions of the community on their knowledge of the EIA process in terms of their age, gender, level of education, employment status, and have attended an EIA public participation meetings before.

“Cramer’s V, on the other hand, is the most widely used nominal association used to measure the strength of relationship regardless of the data sample size. Cramer’s V was used to measure effect size. Cramer’s V measures the strength of relationship for any size of contingency table, and it offers good norming values from 0 (zero) to 1 (one) for relative comparison of the strength of correlation regardless of the table size. It is worth mentioning here that Cramer’s V is an index of the strength of association only. Additionally, the limitation of Cramer’s V is that it cannot be utilized to compare the strength of one relationship to another correlation. For Cramer’s V, 0.0 to 0.30, the strength is considered no relationship to weak; for Cramer’s V, 0.31 to 0.70, the strength is considered moderate relationship; while for Cramer’s V from 0.71 to 1.0, the strength of the relationship is considered strong” (Essien, 2015).

In this Chapter two sub-hypotheses were tested, namely:

- Community members’ awareness of the purpose of EIAs is a factor of their demographic profiles (i.e. their age, gender, education status, employment status)
- Community members’ awareness of EIAs is a factor of them having attended an EIA meeting before.

Table 4.6 gives a summary of the cross-tabulations (Tables 4.1- 4.5) and results of the Chi-square (χ^2) test used to associate age, gender, educational status, employment status and previous experience in attending the public participation process with understanding EIA procedure. The $p < 0.05$ was considered significant. Except for gender ($p < .05$) there is no significant association observed on the understanding of the purposes of EIA by demographic profiles and having prior experience in the public participation process. Based on that the null hypotheses that awareness of the purposes of EIA is not a factor of respondents’ demographic profile is accepted. The null hypothesis that ‘prior attendance of public participation is not a factor in awareness the purposes of the EIA processes is also accepted.

Table 4.6 Summary results of factors associated with awareness the process of EIA

	Chi-square	df*	p-value	Cramer's V
Gender	6.355	1	.012*	.126 ⁰
Age	.939	2	.625	.048 ⁰
Education	2.425	2	.298	.078 ⁰
Employment	3.859	2	.145	.098 ⁰
Previous Experience	1.633	1	.201	.064 ⁰

*= $P < 0.05$, **= $P < 0.01$, ***= $P < 0.001$; 0 = no relationship to weak; 1 = moderate relationship; 2 = strong relationship; df^* = degrees of freedom

4.5.2 Justification of the hypothesis

With reference to Table 4.2, only a very few of the respondents were elderly people (8.5%) whereas most of them were youth (58.1%). Similarly, studies by Simpson and Basta (2018) suggest that when the youth become progressively more involved in environmental decision-making, projects of this nature continue to have a meaningful connection and influence. In this regard, efforts made for sustainability purpose will in future be enhanced.

Community members depicted low level of awareness of EIA process and procedure despite some of them being in possession of higher qualifications. In that most of the respondents have less than grade 12 qualification, this is even made more complicated in that the capacity to understand EIA as a process requires a particular expertise and not just general education. Precisely, not every educated person will have a better knowledge of the EIA process and procedures. Environmental management as a field is specialised hence a need that EAPs undergo speciality training so that they can carry out this process effectively and efficiently. Basically, without expert knowledge community members will just use common sense in order to assimilate the proceedings during EIA project meetings. More importantly, the EAPs' use of technical language associated with EIA procedure is very unfortunate to the marginalised community members in that they are not interacted with as most of the issues are new and too technical for their level of understanding. However, even those who are educated may not necessarily have the capacity to assimilate EIA technical language that may be used during EIA project meetings.

Though previous experience of having attended public participation meetings in the past could be summarily viewed as a necessary factor in determining understanding of the EIA process, deep seated perceptions and expectations may overshadow the purpose of attending public participation meetings. Similarly, Enriquez-de-Salamanca (2021) observed that certain public participation meetings are politically charged and at some stage the ultimate purpose of such meetings is derailed. However, regular attendance of properly conducted public participation meetings can be pivotal in offering opportunity for community members to develop and be capacitated accordingly. Quite notable is that due to lack of standard framework for public participation, development projects are conducted differently by EAPs thereby denying

community members opportunity to be equitably capacitated in terms of knowledge and understanding of the EIA process. Studies by Du Pisani and Sandham (2006) suggest that the general public has no interest in the EIA process and this can be attributed to low levels of education. Quite precisely, unlearned community members in rural areas are more concerned about the benefits associated with development rather than the impacts of development on the natural environment.

4.6 Chapter summary

This chapter dealt with objective 1 of the research study whereby data generated focussed on the evaluation of communities' level of awareness with regard to guidelines for public participation for EIA process as stipulated in the applicable environmental legislations. Specific items attended to include demographic and socio-economic status of the respondents: sex, age, qualifications and employment status, amongst others. Analysis, interpretation and discussion of the data generated were also done in this chapter. Essentially, this study found out that communities' level of awareness of EIA process is generally very limited and this can be attributed to lack of requisite skills and knowledge to make meaningful and deliberative engagements. The next chapter deals with the assessment of the extent to which EAPs have complied with the guidelines for public participation for EIA process.

CHAPTER 5: EAPs' PRACTICE DURING PUBLIC PARTICIPATION FOR EIAs

5.1 Introduction

This chapter provides results that describe the EAPs level of compliance with EIA regulations for public participation in the Vhembe district of South Africa. It outlines the primary data collected through interviews and secondary data in the form of the EIA reports compiled by the respective EAPs. Themes established through the data collected are discussed in this chapter linking them with relevant theory discussed in chapter 2. In essence, EAPs' respective Environmental Impact Reports (EIR) were evaluated through a checklist meant to determine EAPs' level of compliance regarding EIA regulations and applicable environmental legislations.

5.2 EAPs qualifications regarding compliance to EIA legislation

Each of the four practitioners had to comply with applicable regulations determining requirements needed for one to be appointed as a qualified EAP as outlined in NEMA (Act 107 of 1998, as amended) (DEA, 2014). The results illustrate that the EAPs who prepared the EIA reports and conducted the public participation process for the identified EIA projects have all obtained their postgraduate degree qualifications at honours level. Furthermore, they were all within the age group of 26-35 years at the time they conducted the respective EIAs. With regard to gender, three EAPs are females whereas only one is a male.

Table 5.1 Demographics and personal details of EAPs

	Musina project	Mhinga project	Matsa project	University of Venda project
Qualifications	Postgraduate Degree (Hons.)	Postgraduate Degree (Hons.)	Postgraduate Degree (Hons.)	Postgraduate Degree (Hons.)
Age Group	26-35 years	26-35 years	26-35 years	26-35 years
Gender	Female	Female	Male	Female

5.3 Documents' review of the sampled developments projects

Accordingly, the development projects sampled for this research study concern development of a residential complex, crocodile breeding facility, resort construction project and upgrade of access gravel road to tar. These development projects were randomly sampled. They were also found to potentially cause negative impacts on the environment as well as to have potential to draw interest from the local communities. In that these development projects are listed in terms of EIA regulations, they therefore require authorisation and as such have to undergo EIA

procedures for consideration by the competent authority. Accordingly, activities in listing notice 1 require basic assessment and those in listing notice 2 require scoping and EIA. Listing notice 3 pertains to activities requiring basic assessment but being different from those activities in listing notice 1. In this regard, compliance of projects' information documents (BARs, S&EIR and EMPr) developed by the EAPs were assessed against the relevant listing notices, processes and requirements. The documents reviewed as developed by the respective EAPs were obtained from the local municipalities within Vhembe District. In order to make the process of document review and assessment objective, a checklist was developed (Table 5.2).

5.3.1 Findings for Musina residential complex development

With pertinence to the residential complex development, the S&EIR included the specialist studies which covered the ecological impact assessment report, geotechnical report and heritage impact assessment report (Table 5.2). Public participation was conducted by the same environmental consultants and this was supported by the following attachments as part of the final EIA report: newspaper advert, photographs of onsite notices, emails for invitations, invitations to I&APs, pictures of community members and stakeholders who attended the meeting, agenda and minutes of the public participation meeting as well as the attendance register of the participants. In terms of applicable environmental legislations, the consultants complied with some of the requirements for public participation for EIA (Table 5.5).

5.3.2. Findings for Xatumbu crocodile breeding facility establishment at Mhinga

Regarding the crocodile breeding facility, the BAR included the specialist studies which covered the ecological impact assessment report, geotechnical report and heritage/archaeological impact assessment report. The specialist reports and EMPr attached were comprehensive and detailed. Public participation was also conducted by the same EAP and the following documents were attached to the final report: newspaper advert, photographs of onsite notices, invitations to I&APs, as well as the attendance register of the participants (Table 5.2). In this regard, the EAP has partially complied with the basic requirements for public participation as per EIA regulations due to the missing attachments of the agenda and minutes of the meeting and other matters pertaining to public participation as reflected in Table 5.5.

5.3.3 Findings regarding Tshakamate Resort development at Matsa village

The BAR for this development project included the specialist studies which covered the ecological impact assessment report, geotechnical report and heritage impact assessment report (Table 5.2). The specialist reports attached were comprehensive and detailed. Public participation was conducted by the same environmental consulting company and the following documents were attached to the final report: newspaper advert, photographs of onsite notices, invitations to I&APs, minutes of the public participation meeting, presentation slides, as well as the attendance register of the participants (Table 5.2). In this regard, in terms of applicable environmental legislations, the consultant partially complied with some of the requirements for EIA since the EMPr was subjected to review. However, public participation regulations were not all complied with and as such lacked in some areas in terms of compliance (Table 5.5).

5.3.4 Findings for the University of Venda access road upgrade

As for the University of Venda access road upgrade, document review indicates that it is only the ecological impact assessment that was attached to the BAR as the only form of evidence. Quite notable, is the absence of any document to prove that public participation ever took place despite claims made by the EAP that the process was done as part of BA process as per EIA requirement (Table 5.2). In this regard, in terms of applicable environmental legislations, the consultant did not comply with all the requirements for EIA. The EAP also used the 2014 EIA regulations to compile the report instead of using the 2017 EIA guidelines. Basically, the EAP did not comply with all the regulations and guidelines for public participation when conducting EIA process (Table 5.5).

Table 5.2 Document review for the sampled development projects in Vhembe district

Parameters	Musina Project	Mhinga Project	Matsa Project	UNIVEN Project
Municipality	Musina	Colins Chabane	Makhado	Thulamela
Project type	Residential development	Crocodile facility development	Resort construction	Road upgrade
Area covered	85 hectares	5 hectares	18 hectares	1,1 kilometres
Assessment type	S&EIR	Basic Assessment	Basic Assessment	Basic Assessment
Legislation	2010 EIA Reg.	2010 EIA Reg.	2017 EIA Reg.	2014 EIA Reg.
Application date	May 2015	November 2014	May 2018	May 2019
BID	Presented	Presented	Presented	Presented
EMPr compliance	EMPr is compliant with EIA regulations	EMPr is compliant with EIA regulations	Initial EMPr was not fully meeting all EIA standards	Initial EMPr was not fully meeting all EIA standards
Specialist reports	• Ecological	• Ecological	• Ecological	• Ecological
	• Geotechnical	• Geotechnical	• Geotechnical	No evidence attached
	• Heritage	• Heritage	• Heritage	No evidence attached
Newspaper advert	• Available	• Available	• Available	No evidence attached
Onsite notices	• Present	• Present	• Present	No evidence attached
I&APs invitation	• Complied with	• Complied with	• Complied with	No evidence attached
PP agenda	• Available	Not available	• Available	• Available
Minutes of meeting	• Available	Not available	• Available	• Available
PP meeting roll call	• Complied with	• Complied with	• Complied with	• Complied with
Participants' photos	• Attached	[Not available]	• Attached	[Not available]
Presentation slides	[Not available]	[Not available]	• Available	[Not available]

5.3.5 General summary of the document review during EIA process

The four development projects had to follow the regulations in terms of the National Environmental Management Act (Act 107 of 1998) of the Republic of South Africa. These regulations entail the steps involved at different levels of assessment that the EAPs need to take in order to fulfil the required procedures of the EIA process. The results show that the EIAs public participation process as outlined in Table 5.2 were developed and outlined as listed activities; and required

public participation as part of environmental authorisation requirement before submission of applications to the competent authority for consideration.

Based on the results, the four development projects were required to submit reports as per EIA legislation. The results indicate that all the projects managed to put up newspaper advertisements as specified by the applicable regulations. The three projects also submitted Basic Assessment (BA) reports and the one for residential development, S&EIR. The EAPs followed procedures to assess the positive and negative impacts of these projects on the environment before submitting their applications for authorisation.

The results demonstrate that the EAPs, to a certain extent, complied with the applicable EIA guidelines for public participation when the process was undertaken. The Competent Authority (CA) and the registered interested and affected parties were informed about the projects in all four areas and given 30 day notice to comment on the reports as illustrated in Table 5.3. The results show that the EAPs also followed the relevant recommendations on the environmental audit reports to the competent authority in all the four development projects.

Based on the regulations which state that when undertaking public participation, in the event where the EAP or specialist is considered biased or is conflicted, another EAP or specialist must be appointed to externally review all work undertaken by the EAP or specialist prior to conducting any public participation process, the results from the studies show that there was no appointment of a new EAP in any of the four selected development projects. However, this was the case despite the fact that some community members who participated during public meetings were concerned about issues they raised but did not receive consideration by the EAPs in some of the identified development projects.

The results also illustrate that all the projects were made public though through communication platforms which were not compatible with the type of community members they were targeting. For instance, not all community members invited got the information through newspaper advertisements because not all of them are used to reading newspapers. Furthermore, providing EIA report to the public through websites was not the best platform for rural community members. In essence, though EAPs complied with applicable regulations for information dissemination, not everybody targeted could access such documents.

Table 5.3 Compliance level of the EAPs based on the EIA regulations

	Musina	Mhinga	Matsa	UNIVEN
The Competent Authority and Registered Interested and Affected Parties were provided with an opportunity to comment on the reports for 30 days before	Yes	Yes	Yes	Yes
Holder submits an Environmental Audit Report (EAR) to the CA, and recommendations to amend the EMPr or closure plan, in order to rectify the shortcomings	Yes	Yes	Yes	Yes
Appointment of a new EAP after failure of the initial EAP to be independent	No	No	No	No
Submission of the Environmental Audit Reports to the CA and recommendations to amend the EMPr to rectify shortcomings identified in the EAR subjected to an public participation process	No	Yes	No	Yes
Enough opportunity given to the public to participate in the public participation process within the advertised period	Yes	Yes	Yes	Yes
Submission of all necessary reports within stipulated period of time such as BAR and S&EIR	Yes	Yes	Yes	No

5.4 Interviews with the EAPs

In order to initiate consultation with the different stakeholders, the four projects used different approaches. For instance, Mhinga and Matsa EAPs contacted the local traditional headmen who helped with regard to initiating the process whereas at Musina Local Municipality, the resident officer responsible for public participation within the municipality was very much helpful to see the process succeed, particularly because this was a municipality project. At UNIVEN, the development manager in liaison with the Geography senior lecturer in the Department of Geography and Geo-Information Sciences assisted in this regard. Furthermore, different communities came to know about these development projects in different ways. Most community members at Musina (residential development), Matsa (resort construction) and Mhinga (crocodile breeding facility) came to know about the development projects in their respective areas through community meetings, whereas most of the students and employees at the University of Venda (road upgrade) were informed through campus and onsite notices.

In general, invitations for all the four development projects were made in terms of applicable EIA regulations and guidelines for public participation. Findings show that the EAPs used the following forms of communications to invite community members for public participation meetings namely: community meetings, public notices (onsite notices) and newspaper advertisements. However, newspaper advertisements did not use local languages in inviting participants for public participation meetings and this was a disregard for the applicable regulation. The provision within EIA legislation (NEMA) is that the public should be informed early with regard to development proposals that may affect their lives or livelihoods and that should be done amongst other platforms through placing advertisements on a local newspaper and consideration should be made for disadvantaged communities or people who cannot read or write to be informed through public meetings (DEA, 2017). Unlike what is a common practice in Pakistan where “Pakistan Environmental Protection Agency Regulations 2000 under section 10 mandate that public notice or invitation for public participation be published in English or the local Urdu language” (Nadeem & Fischer, 2011:37), the situation in South Africa is a bit different in that the legislation does not stipulate in terms of which language should be used except to say that “local language of the Registered Interested and Affected Parties (RI&AP) should be taken into account when serving a notice and when selecting a newspaper for advertising” (DEA, 2017:10). In this regard, local language can mean local in the context of the country South Africa or province or district and this may not necessarily work for the disadvantaged local communities in areas like Vhembe district where there are different language groups. In spite of this, the matter was also made complicated by environmental notices which were published amongst numerous other advertisements under classified section of the newspaper. As was the case in Pakistan, many villagers who participated during EIA public meetings did not come to know about the project meetings through newspapers but through friends and neighbours (Nadeem & Fischer, 2011). Furthermore, specific invitations were issued to relevant government agencies, competent authorities and people with special interests. Generally, all EAPs agreed on the notion that the nature of the community is influential in terms of the type of communication that should be used to invite community members for public participation meetings:

“It depends on the type of community involved, but we always use the platform of communication which is accessible to the majority of community members, such as an announcement at community meetings, public notices or onsite notices and sometimes through the radio.” (EAP for Musina project).

“We usually rely on the traditional leaders to organize time for us to meet community members personally, so that the information is relayed to them without distortion.” (EAP for Matsa project).

In addition to the above sentiment, the findings indicate that effectiveness of mode of communication across the sampled site varied from one project to the other as the EAPs in Mhinga, Musina and Matsa projects preferred the use of community meetings whereas the one for the University of Venda project preferred social media platforms as an effective method to invite community members for public participation meetings.

“In the area that I have worked, for instance, most people make use of social media platforms for communication, so we decided to further communicate with them through such platforms besides the commonly used modes.” (EAP for UNIVEN project)

“In that the area where I was conducting public participation is rural, we used community meetings for invitations and interaction with community members.” (EAP for Mhinga project).

Though the use of modes of communication for inviting the communities for public participation meetings vary, the variety of communities in terms of age and level of education does not require a one-size-fits-all means of communication (Table 5.4.). It is always advisable to check and identify with the majority preference as maximum participation is pivotal. Something that was strikingly noticed was that newspaper advertisements meant for the invitation of community members to attend public participation were in English despite the low level of educational status depicted within the majority of community members.

Table 5.4 Commonly used and preferred modes of communication within the communities

	Residential development	Crocodile breeding facility	Resort construction	Road upgrade
Form of communication used to conduct Public Participation	Community meetings, onsite notices and newspaper advert.	Community meetings, onsite notices and newspaper advert	Community meetings, onsite notices and newspaper advert	Community meetings, public notices and newspaper advert
Preferred form of communication	Community meetings, social media and radio	Community meetings and radio	Community meetings.	Social media platforms and radio

The facilitation of public participation meetings varied from one project to the other and this was influenced by the composition of the participants in terms of language and diversity regarding educational status. Nancefield location in Musina town (residential development) is very much diversified in terms of community composition and in this regard different languages were interchangeably used during the public participation meeting: Tshivenda, Tsonga and English. At Matsa village (resort construction) they used Tshivenda; Mhinga village (crocodile breeding facility), Tsonga and UNIVEN (road upgrade), English. However, participants for the road upgrade were involved in deliberative interaction with the facilitator as they were mostly students.

Venues for public participation meetings were conducive and accessible to the majority of the participants even though just a few of them raised concerns in terms of timing particularly for those for the resort construction and crocodile breeding facility. Though the public participation meetings were compliant in terms of the provided agenda, the majority of the participants were interested in job opportunities and skills development rather than EIA issues related to the proposed projects. This was disclosed by some of the respondents during interviews with key informants and a similar situation was observed by Hasan, *et al.*, (2018:14) in conceding that “peoples’ interest in attending EIA public hearings in Bangladesh was mainly prompted by opportunities for jobs and improvement of livelihoods.”

With regard to how the process of public participation can be improved, the following suggestions were put forward. Suggestions made by the EAPs with regard to the improvement of public participation in EIA varied. Though they wanted to remain anonymous, some suggested that members of the community need to be exposed to and capacitated regarding educative and learning experiences in environmental issues in order to make meaningful deliberations during public hearings. Secondly, it was suggested that there be capacitation of communities in terms of discussion skills and techniques. Thirdly, it was suggested that communities be encouraged to form environmentally oriented structures like Non-Governmental Organisations (NGOs) which can help them with regard to issues pertaining to conservation of the natural environment and its resources. Quite surprising though, one of the EAPs indicated that public participation in EIA is so onerous an activity that it should be scrapped.

5.5 Evaluation of EAPs' practice during public participation for EIA

An evaluation framework by Hasan, *et al.*, (2018) was adapted and modified in order to evaluate compliance and effectiveness of public participation in the development projects in the four respective local municipalities in the Vhembe district. For the purpose of this study, evaluation criteria identified are based on process compliance and outcomes performance namely: inclusivity, early involvement, complete information disclosure (access to information), transparency and access to justice, influence in the decisions made, interaction, effectiveness and efficiency. The evaluation criteria identified were used to assess procedural and substantive performance of public participation in practice.

Though most of the consultants complied with some of the requirements for public participation as determined by applicable EIA regulations and guidelines, there were areas in which certain criteria for process evaluation were not complied with (Table 5.5). For instance, regarding the screening phase for all the four projects, there was no study carried out to identify the stakeholders and public groups before the start of the projects and as such there was no early involvement of the participants. In this regard, it is therefore implicit of the fact that the issues of fairness and transparency were not complied with. With regard to Xatumbu crocodile breeding facility, the fact that this is a private project, just like the Tshakamate resort construction project, most of the local people were not so interested, hence the lack of interaction amongst the local people and the facilitators of the public hearings. However, the road upgrade project to the University of Venda depicted some sort of heightened interaction amongst the participants and the consultant.

Opportunity for the respondents to participate showed limitations at two projects namely crocodile farm and road upgrade projects in that the level of agreement was at 41.2% and 30.0% respectively. Those who were comfortable with the opportunity presented to them to participate showed a level of agreement with this notion at 60.8% for residential complex project and 95.4% for resort construction project (Appendix 7). Regarding impact identification and analysis, the evaluation of the facilitation made by the four consultants as indicated herein is based on data presented in Appendix 9. The manner in which the four EAPs conducted public participation for the respective development projects was based on the nature of the projects and participants' interest as well as the consultants' experience and expertise in conducting EIA. Furthermore, public concerns raised during mitigation and impact management phase of the EIA process were not fully addressed. Furthermore, the integration of local knowledge and expertise knowledge which have occurred between local people and the environmental consultants conducting EIA

process and facilitating public meetings was very inadequate and some instances non-existent. Precisely, the issue of transparency and access to information proved to be very elusive for the environmental consultants during the scoping and impact analysis phases of the EIA process.

Mitigation and impact management phases of the four development projects almost suffered the same fate in that the stakeholders were not informed about how they should raise their concerns and inputs and also about how their contributions would be addressed. Also of serious concern was that the EIR/BAR did not address all the concerns, views and comments raised by the public during public meetings. Quite concerning, however, was that for all the four development projects, the public was not allowed to give inputs on the post-evaluation of impacts and mitigation measures and as such public influence in the decision-making process was curtailed. Basically, the public was not provided with opportunity to make contributions with regard to decision-making process for all the development projects. Finally, there was no provision made for the local people to be involved in the implementation and follow-up phases of all the four development projects in the study area. Again, there were no provisions made for the local people to be capacitated in terms of knowledge and values acquisition as well as development of skills. In essence, public participation process as carried out during the EIA process in the four development projects lacked in terms of access to justice, stakeholders' capacitation and effectiveness and as such the substantive performance of this process can be considered neglected by the respective EAPs (Table 5.5).

Table 5.5 Evaluation of public participation of the selected development projects in the study area.

[This evaluation tool is an adapted and modified framework by Hasan, *et al.*, (2018)].

EIA stages/phases	Evaluation criteria/parameters	Evaluation of public participation			
		Development projects			
		Residential development	Crocodile breeding	Resort construction	Road upgrade
Screening	Stakeholders and local people were identified and consulted before the start of the project (Early involvement).	No	No	No	No
	Contacts were made with local people about project activities, impacts and job opportunities (Fairness and justice).	Limited	No	No	Inadequate
	Integration of local and expert knowledge (Interaction and fairness).	Insignificant	No	No	No

Scoping	Detailed project information was shared with local people using appropriate media (Transparency and access to information).	Minimal	Inadequate	Minimal	Inadequate
	There was complete dissemination of information (Access to information).	No	No	No	No
	Terms of reference of the project was shared with public for reviews (Fairness and transparency).	No	No	No	No
Impact analysis	Representation of all stakeholders.	CA absent	CA absent	CA absent	CA absent
	Concerns and expectations of all stakeholders were considered (Fairness).	Minimal	Not ensured	Minimal	To an extent
	Draft EIA was shared with local people (Transparency and information access).	Yes	Yes	Yes	Yes
	Access to information by the public.	Limited	Not accessible	Impeded	Limited
Mitigation and impact management	Stakeholders were informed about how their concerns were addressed (Fairness).	No	No	No	No
	The detailed design was made available to the public (Transparency).	Yes	Yes	Yes	Yes
	The EIR/BAR addressed all views and comments of the public (Fairness).	Not all	Not all	Some of	Not all
	Final EIR/BAR contained summary of all public comments and responses.	Partly	Some of	Not all	Partly
	Public was allowed to give inputs on post-evaluation of impacts and mitigation measures [Public influence in the decision-making process].	No	No	No	No
EIA report review	Public inputs and concerns were accounted in decision-making process (Transparency and access to justice).	Limited	Insignificant	Limited	Insignificant
Implementation and follow up	Local people were involved in the implementation and monitoring of EIA (Involvement and influence).	No	No	No	No
	Local people were capacitated in terms of knowledge, skills, values and attitude.	Very limited	No	No	Very limited

5.6 Community involvement in the EIA process

- **Public participation in the planning and design phase**

Taking into consideration the findings from the empirical study with regard to the development projects in the Vhembe district, members of the communities were generally not consulted during planning and design phases of the projects. This generally confirms the notion that development projects are not necessarily for the communities but for the developers whose vested interests and preferences are being influenced by their own agendas. Even though developers just like EAPs know that public involvement in development projects is a legal requirement, for them to overlook this requirement is usually deliberate and purposeful. From a democratic point of view, inclusivity is a good idea since it allows everybody to participate thereby ensuring compliance.

- **Public participation in the screening and scoping phases**

Also with screening and scoping phases of the identified projects, findings from the empirical study indicate that the majority of the respondents were not consulted. This affected participants' knowledge regarding processes and procedures for screening and scoping for development projects. In this regard, public participation objective of presenting opportunity to learn and be capacitated in terms of environmental knowledge and related skills has been curtailed. Put differently, though the participants could have made contributions or inputs in the process, the missed opportunity denied them such and this may translate to low level of support for future projects.

- **Public participation in S&EIR/BAR preparation and reports review**

The findings from this empirical study indicate that no members of the community were involved when reports were prepared and reviewed. This means that the EAPs did not fully comply with the EIA regulations for public participation (Table 5.5). In a similar study, Hasan, *et al.*, (2018) concede that practice of public participation in EIA faces diversified barriers like lack of requisite skills and knowledge. Basically in situations where the participants feel that those leading the discussions, and in this case the EAPs, are talking past them, their participation level drops. However, even if community members were given opportunity to make inputs, their lack of knowledge and expertise in the issues discussed would be a handicap to them. Precisely, lack of capacity posed a serious challenge in terms of project interest.

- **Public participation in decision-making phase**

Findings through this study have proved that the respondents were not involved in the decision making process (Table 5.5). In this regard, Hartley and Wood (2005) concede that when people feel that something is a “done deal”, they show resentment and stop participating. Usually, there are those community members who have a perception that should their contributions be not considered then something is a done deal. Regarding this misplaced perception, Hourdequin, *et al.*, (2012) warn that the issue of equal opportunity to participate should not be misconstrued to imply that everyone has an equal role during public participation meetings. Some individuals are placed in better positions to serve appropriately in terms of decision making due to their acquired technical expertise, skills and knowledge. In this case it is the relevant competent authority who is required by law to make the ultimate decision regarding project authorisation, however inputs by members of the community should be considered.

5.7 EAPs’ transparency about projects’ information during EIA process

Findings in this context indicated that public involvement during the planning phase of the development projects was non-existent and this has been qualified by this empirical study in that the respondents indicate that they were not consulted or involved (Table 5.5). This being the inception stage of the project and process, implications are that the public has been denied an opportunity to make inputs with regard to the plans and designs of the development projects and as such did not embrace the proceedings of the process at the inception stage. Similar reflections have as well been observed with the disclosure of the purpose of the project. The findings as derived from the empirical study depict that very few of respondents who have indicated that the purpose was disclosed during the initial stage of the process (Table 5.5). Implicit with this is that the public was not consulted early enough in the process and thereby denied their democratic right of influencing the project through their inputs at crucial EIA stages.

Also very notable is that the results purported by this study is that public access to the information regarding negative and positive impacts of the projects was very limited. EAPs did not provide majority of the participants with the required information since only a few claimed to have had this privilege. Basically, the impact analysis stage of the EIA was mainly dependent on EAPs being probed with questions since they were not fully disclosing the impacts of the proposed projects to the stakeholders during public hearings. Taking into consideration that every form of development somehow affects everyone’s quality of life, the disclosure of the projects’ negative and positive

impacts on the environment is not only imperative but also obligatory in terms of National Environmental Management Amendment Act, 2008 (At No. 62 of 2008). In this regard, public consultation has been found wanting. This platform could have created an opportunity for the EAPs to exchange information with the local people. Succinctly put, with the EAPs not disclosing adequate information regarding environmental impacts by the proposed development projects denied the public and the EAPs opportunity to engage in meaningful and vibrant deliberations where technical information by the experts is pitted against indigenous knowledge from the laypeople about the environment. In this regard, comprehensive public participation which contributes to healthy and vibrant democracy as advocated by DEA (2017) is curtailed and undermined.

Furthermore, findings as solicited from this empirical study indicate that consultation of the public with regard to maps and data presented as well as time allocated for the public to assess project impacts were not adequate. This can be attributed to the considerable amount of time taken when EAPs were trying to make the information comprehensible to those who amongst the stakeholders are not experts or knowledgeable about maps and data presented. Only a few of the respondents agreed that data and maps presented provided them with adequate information to be able to make meaningful decisions and these could be those few knowledgeable members of the community who participated in the EIA public hearings for the proposed development projects. Another notable concern is that a few of respondents indicating that the time given for the public to assess project impacts was adequate. This reflection is indicative of the fact that the manner in which EAPs disseminated information deprived the public effective and comprehensive consultation and in the process the public's level of understanding of the project and processes involved was not enhanced. It therefore raises a question as to how the public will be capacitated in order to make independent decisions and also come up with plausible environmental initiatives with the ultimate objective of ensuring that sustainable development takes place in their area.

5.8 Discussion

This discussion is based on the results presented above with regard to how the EAPs conducted public participation for EIA as per applicable guidelines and regulations.

5.8.1 Document review and interview analysis

The findings as based on the empirical evidence provided reveal that EIA practice with regard to public participation in Vhembe district is generally inconsistent and as such require urgent

consideration. However, despite the weaknesses identified, there are strengths and areas showing compliance with applicable EIA regulations. The two identified development projects: residential development and establishment of crocodile breeding facility have complied with the minimum required standards in terms of applicable legislation and application for authorisation. Of the four development projects, the construction of residential units required S&EIR since it is a listed activity requiring the clearance of vegetation exceeding 20 ha whereas the other three activities required Basic Assessment Report (BAR) owing to their nature and footprint in terms of vegetation clearance as per applicable NEMA legislation (Act No. 62 of 2008 as amended). All the four projects also complied in terms of presentation of the Background Information Document (BID).

Despite the two development projects being somewhat compliant in terms of applicable EIA regulations, findings as based on the empirical evidence have shown stark difference with regard to issues and aspects of the EIA reports which require EAPs' level of competence, integrity, experience, expertise, exposure and compliance with applicable ethical standards. This is so despite all the EAPs being in possession of post-graduate degrees in the field of environmental management. This can be attributed to the lack of broadly and widely accepted standards amongst academics and practitioners as to what constitutes good practice in EIA. This becomes more compounded because each EIA process depends on the EAP's interpretation of the applicable legislation – public participation process included. The specialist reports presented for the three projects were inclusive of the following areas of study: ecological impact assessment, geotechnical assessment and heritage impact assessment. However, the specialist reports attached were very technical and somewhat inconsistent with the activities applied for and this was an indication of the fact that EIA in practice is done solely for compliance.

Something very striking to take note of was that the road upgrade project, though based on the latest EIA regulations and guidelines, only restricted its specialist report on ecological impact assessment. The manner in which the specialist reports were drafted for all the four projects raises a suspicion that these were mere desktop studies and as such were not entirely informed by the observations and findings made during the site visits. Only two EMPr were developed comprehensively and as such compliant with applicable legislations: Musina (residential development) and Mhinga (crocodile breeding farm). The other two EMPr were poorly developed and not meeting the required standards – hence they were turned down by the competent authority (CA) for review and were subjected to another public participation process.

The findings based on documents reviewed indicate that EMPr for the development activities identified are glaringly different in terms of contents and formats except for a fact that one requires S&EIR and the other three BAR. This therefore speaks of the stark difference in EAPs' expertise and experience. There is a concern as well in the nature of EIA as a process. Empirical evidence hereby confirm that EIA is based on prediction, particularly when it comes to the drafting of EMPr and specialist reports. In essence, evaluation of the outcomes of a predicted process cannot be objective – hence the glaringly different and inconsistent structures of the presented EMPr for the development projects in reference. The predictability nature of EIA process is very concerning since this brings into play the issue of inconsistency not only in academic circles but also to the practitioners. The dependence of such an important aspect of EIA process, EMPr, on the experience and expertise of the EAPs implies that there can be different outcomes for the same project when conducted by different EAPs. In the wake of this, it therefore follows that despite an array of plausible environmental legislations, development project activities which put the environment under threat will most likely continue to receive authorisations.

5.8.2 EAPs practice during EIA public participation meetings

With reference to the EIA documents (BAR and S&EIR) reviewed and the interviews conducted, public participation has been found to be wanting and inconsistent in practice. This can be attributed to a plethora of factors. Public participation as a process is highly contested in the academic arena (Glucker, *et al.*, 2013) and the same observation prevails in practice. In this perspective, Bishop and Davis (2002) concede that public participation as a concept has long been argued about and subjected to various connotations. A closer look at some of the academic studies reveals that most scholars do not agree over the lexical meaning of the process of public participation in the context of EIA (Glucker, *et al.*, 2013). The overview provided in this context (by definition and in practice) confirms that there is no consensus on what constitutes authentic and genuine public participation in EIA hence the display of inconsistency with regard to its application in the different development projects. In the wake of this, there is therefore a need for the development of framework for public participation practice as proposed by this study. Quite concerning to note is that there is no evidence attached confirming the undertaking of public hearing for the road upgrading project whereas the crocodile breeding facility shows that the process has been done differently when compared to the other two projects (Table 5.2). This is indicative of the fact that there is no definite prescribed framework for public participation process

in EIA practice. As a result, one particular development project can therefore have a different public participation process and outcomes owing to the different approaches and techniques used by different EAPs.

Also to take note of is the manner in which EAPs conduct public participation as reflected by the attachments made to the documents reviewed (Table 5.2). Owing to the predictive nature of EIA process, the implementation of public participation process has as well been found wanting in terms of its objectivity by EAPs. Regarding the general requirements for application for authorisation, it is stipulated that the developer should appoint an EAP who is independent and have thorough knowledge of the applicable laws and be objective through compliance with applicable regulations even if this results in views and findings that are not favourable to the application (DEA, 2014; DEA, 2017). A concern in this regard is that the EIA requirement according to NEMA regulations is that EAP must be independent of the developer. However, in practice, since the EAP is remunerated by the developer, they will most likely have no employment if their EIRs often recommend the “do nothing” option (Sandham & Pretorius, 2008). Succinctly put by Rossouw, *et al.*, (2003), environmental consultants are only considerate of concerns raised by proponents since they are indebted to them and as such turn out to be only accountable to them and no one else. In essence, in that the consultants did not take into consideration public inputs when developing the environmental impact reports is indicative of the fact that they are only accountable to their employer who is the applicant and no one else.

In the wake of these assertions, assumptions made are that environmental assessment practitioners either avoid EIAs which are likely to attract unfavourable verdicts by the competent authority or else get involved in illicit practices with some aspects of the EIA procedure like exaggerating potential projects’ benefits and ignoring or suppressing negative impacts and risks thereof. In the process, concerns and inputs raised by those directly affected by the project during public participation, community members in particular, are ignored. Implicit with this is that the value of public participation as a crucial element of EIA is basically undermined by those whom the fair and objective implementation of the process is bestowed upon. In that the EAPs work for the developers is a fundamental institutional flaw. This is because the EAPs are likely to be conflicted between conducting an objective, fair and inclusive public participation process (favourable or unfavourable) and satisfying their clients (developers). The identified flaw needs urgent attention if EIA as a process (public participation included) still has to meet its objective of sustainable development and thereby address the issue of social and environmental justice.

The empirical evidence displayed in the documents reviewed and through interviews conducted herein is that EAPs conduct public participation most probably for the sake of compliance. This is evidenced by reflection of those EAPs who only met the minimum requirements of the applicable legislation. To this O’Faircheallaigh (2010), lamented that certain public participations turn to be tokenistic in that they are done solely for administrative purpose. To the EAPs, meeting minimum requirements of the applicable legislation for EIA and public participation is not against the law, after all to them it saves them time for other projects and commitments. However, with the desire to make public participation more effective and efficient, observation of minimum stipulations of the law cannot do justice in bringing back confidence and trust of the communities negatively affected by the impacts of development projects. As noted by Rossouw, *et al.*, (2003), generally in practice, consultants only comply to the minimum requirements of the applicable legislation whilst developers prefer to engage with practitioners who can solicit authorisation at the shortest time possible. Given the varying nature and composition of the communities subjected to the process of public participation, the tendency of sticking to the stipulated minimum requirements applicable to this process cannot bring the intended outcomes in all circumstances. There is a need for the EAPs to go beyond the requirements by incorporating other interventions in order to enhance the process and make it more comprehensive. “There is therefore no simple recipe for effective public participation that can be applied in all cases” (Hourdequin, *et al.*, 2012). “This is quite relevant to the South African context in which the issue of civil society is a problematic concept where many members of the public are not properly educated about their rights in terms of the Constitution and NEMA” (Hamman, *et al.*, 2000).

Of a serious concern of late, is the issue of biasness by project proponents. And this is something that cannot be ruled out with regard to the projects in reference. As pointed out by Sinclair and Diduck (2017), many participants have raised concerns regarding the practice of having EAPs (answerable to the project proponents) being the only ones conducting public participation events. This practice can seriously compromise the credibility and quality of public participation process and eventually the whole EIA procedure. Enriquez-de-Salamanca (2018) concedes that because developers promote projects, they would make efforts for a favourable EIA and in this regard manipulation of the process can be through ensuring that EAPs hide data or exclude alternatives or fake them or at times avoid complete disclosure of information to the public if it may lead to unfavourable verdict. This was evidenced by the fact that most of the times the EAPs had to be

probed in order to make disclosure of certain mandatory information about impact analysis by considering such as classified information.

The research findings based on the assessment of public participation practice by EAPs is that they have conducted public participation differently despite the prescribed EIA guidelines for the process and this confirms that there is no definite procedural framework for this process in practice – hence the inconsistencies displayed. This can be attributed to what Murombo (2008) raised in asserting that South African EIA laws are considered to be ineffective tools to promote sustainable development as they leave much discretion to Environmental Assessment Practitioners (EAPs) regarding the form in which public participation should assume. Another issue is that, there is a disjuncture between communication platforms used by EAPs and the objectives of public participation as displayed by their use of inappropriate participation techniques for input generation and consensus building sessions. For instance, the use of websites to solicit public comments and inputs about the project is passive and as such cannot even be effective when used in rural communities where most of the community members are marginalised and illiterate. Precisely, small group meetings and focus groups can be suitable to solicit sensitive or classified information from members of the community instead of public meetings whereas public hearings are found to be effective for inputs and comments from large public groups.

Literature has as well proved that practitioners consider public participation as a tool to achieve a set objective and not as an objective in itself. Sandham and Pretorius (2012) concede that “the occurrence of lack of objectivity and independence in the emphasis of the EIR appears to be evidence of lobbying for a particular point of view, usually in favour of development” no matter what the costs of what the point of view is on the environment and implicitly on the community’s well-being in the long run. This is therefore implicit of the notion that practitioners conduct public participation most likely for compliance instead of its desired outcomes. In that the EAPs do not bother themselves to involve local people in the implementation and monitoring phase of the EIA process is indicative of the fact that they are only concerned about the procedural performance of the process and not its substantive performance thereof. Also of concern, as pointed out by Hourdequin, *et al.* (2012), “the issue of equality in terms of access to information presents a situation that exacerbates a lay-expert tension and as such have a potential to generate mistrust and resentment.” Put in simple terms, public participation – as presented under current legislation and circumstance - has its own limitations and undesirable consequences, and this has been proved by the empirical evidence discussed in this chapter.

5.9 Chapter summary

This chapter focussed at the level of compliance by EAPs regarding EIA regulations and guidelines for public participation. Data was generated from interviews conducted with the respective EAPs and the review of EMPr, S&EIR and BAR submitted to the competent authority for consideration regarding the applications submitted for authorisation. The empirical evidence solicited indicates gross inconsistency in how EAPs conduct public participation for EIA. Though EAPs have, to a certain level, complied with applicable EIA regulations and guidelines, concerns are hereby raised that there is a need to have the EAPs consistently monitored in practice. This would ensure that EIA and public participation processes are consistent with applicable environmental legislation and also the substantive performance of the process as well. In general, research findings indicate that public participation, like other aspects of EIA, was done solely for compliance. Another concerning issue is that findings in this regard indicate that public participation was missing during implementation and monitoring phases of the already completed projects. This, unfortunately, denies the public opportunity to monitor compliance in terms provisions and guidelines within the EMPr. The next chapter deals with public participation practice by EAPs in relation to communities' expectations.

CHAPTER 6: COMMUNITY'S EXPECTATIONS ON PUBLIC PARTICIPATION

6.1 Introduction

This chapter aims to discuss public participation practices by the EAPs in relation to community expectations in the identified development projects within Vhembe district. Data in this context was collected through questionnaires which were administered to the sampled members of the different communities in the study area. Interviews were also conducted with key informants sampled from the participants of public participation meetings of the sampled development projects within the study area. The underlying factors are two folded and were determined by the community's way of thinking and the actual practice of the EAPs in conducting public participation for EIA process. Environmental management literature as well as the evidence from the EAPs and key informants were sourced to unpack the issues which were a cause for concern especially to the affected communities. The presentation within this chapter also gives a detailed analysis of variables assessing public participation practice by EAPs in relation to community expectations in the study area. Variables assessed in this chapter are based on communities' demographics evaluated against their expectations: skills development, job opportunities and environmental protection. In this regard, Microsoft Excel 2013 was used for data capturing which was then transferred into SPSS (Statistical Package for Social Sciences). Prior to the analysis, captured data was coded according to the levels of measurement. Data analysis was done using SPSS (SPSS version 27). For data analysis, Chi square and Cramer's V value were used and analysis was set at 0.05 confidence level. A Chi-square test was used to test the hypothesis as mentioned in chapter one. This test is commonly used to measure association of variables and also calculate the significant difference in the expectations of the community by their demographics (Kothari, 2007).

6.2 Openness of EIA process for public participation

Regarding openness of the EIA process during public participation for the different development projects, public participation process was carried out differently by the respective EAPs hence their varied responses to the questions posed. Regarding the convenience in terms of time for meetings, it is only the respondents from the road construction project who showed the low level of agreement with the notion (35%). The rest of the respondents showed high level of agreement at 57.9% for the crocodile farm, 68.6% for the residential complex and 87.7% for the resort construction project. Furthermore, accessibility of the venue almost have the same trend with the

meeting time. Low level of agreement was reported with the road upgrade project (34.0%). Unlike with the road upgrade project, the level of agreement was 57.8% for the crocodile farm, 67.4% for the residential complex project and 87.6% for the resort construction project (Appendix 7).

Opportunity for the respondents to participate revealed limitations at two projects namely crocodile farm and road upgrade projects in that the level of agreement was at 41.2% and 30.0% respectively. Those who were comfortable with the opportunity presented for them to participate showed a high level of agreement with this notion at 60.8% for residential complex project and 95.4% for resort construction project. Liberal participation in terms of expression of own views by participants was reflected in the two development projects, residential complex (59.8%) and resort construction project (93.8%). However, expression of own views by participants was limited at crocodile farm and road upgrade development projects where agreement levels were at 38.3% and 31% respectively.

The level of dialogue and agreement amongst participants and consultants displayed high level of incidence at the residential and resort construction projects with the agreement levels at 55.9% and 77.4% respectively whereas the level of agreement to this notion for the crocodile farm and road upgrade projects were at 40.8% and 32.0% respectively. Almost the same trend was reflected when it comes to the notion as to whether personal consultation was made with those directly affected by the respective development projects. Low level of agreement was observed with crocodile farm project (39.2%) and road upgrade construction (40.0%). Most of the respondents agreed that there was direct consultation with those who were directly affected by the development projects; residential complex (57.8%) and resort construction (89.7%) (Appendix 7).

6.3 Discussion: Openness of EIA process for public participation

The empirical evidence pertaining to the development projects identified indicate that even though community members were afforded opportunity to attend public participation meetings at venues and times somewhat convenient to most of them, their views and opinions were either overlooked or downplayed particularly when they have high likelihood to jeopardise the pre-determined motive of the project despite being given freedom to express such views and opinions. This confirms the notion by Rossouw, *et al.* (2003) that EAPs prefer to have sessions that are immune of problems and confrontations. In essence, observations made are that when issues of serious concerns are raised, EAPs have a tendency of not arguing or showing a contrary view thus

avoiding debates and confrontations but such views end up not being (adequately) responded to and in the process arguments are watered down instead of being enhanced. As evidenced by the minutes of the public participation meetings attached to the EIA documents; questions and concerns recorded were found to have an insignificant contribution to the nature and effectiveness of the process. For instance, when community members ask questions with pertinence to provisioning of job opportunities, it then becomes evident that the issue of environmental protection and conservation is not a priority to them. In this regard, the issue of social and environmental justice is not receiving priority. Precisely, when projects that have a large footprint on the environment in terms of impact like clearing of a derelict land of over 20 hectares does not raise concerns with the community members, it therefore shows their lack of capacity to project on such development impacts on their livelihoods. This kind of interaction may also be attributed to the lack of experience or integrity by the concerned EAP. This, however, rendered the process of public participation as being tokenistic and as such it is only conducted for compliance and administrative purposes (O'Faircheallaigh, 2010).

6.4 Capacity building and education through public participation

Regarding the issue of capacity building through public participation the respondents from the four developments projects gave varied responses thus indicating the different ways in which the EAPs have carried out this process as well as the composition and the behavioural dynamics of members of the communities in the study area. Responses concerning opportunities for sense of ownership showed 50% agreement with the notion by the respondents at the crocodile farm, 62.7% of the respondents for the residential complex also agreed to this notion and overwhelming response of 96% of respondents at the resort construction project agreed with the same notion whereas only 32% of the respondents for the road upgrade project also agreed. With regard to sense of ownership, this implies that community members buy into the proposed development project and as a result show their willingness to participate in the process and see it successful.

As for the fact that public participation offered community members opportunity to be capacitated with regard to conflict resolution, responses showing agreement at a low level were those of crocodile farm and road upgrade showing 36.2% and 36.0% respectively. Responses by those who are associated with residential complex construction project and those associated with the resort construction project revealed 56.9% and 81.5% agreement with the notion that people were capacitated in terms of conflict resolution. Almost the same trend was reflected regarding

responses by respondents at the crocodile farm (33.3%) and road upgrade project (35%) with regard to the notion that the process capacitated them in terms of skills, values and attitudes whereas residential and resort construction projects indicated a high level of agreement with this notion at 56.9% and 79.4% respectively.

The notion regarding opportunity for learning about the environment for the crocodile farm was agreed upon by 42.1% of the respondents and only 28% by the respondents at the road upgrade project. The respondents at the other two projects: residential complex and resort construction indicated a significant level of agreement at 57.8% and 89.7% respectively. The same trend was almost repeated with regard to the notion that the process addressed their concerns and fears with somewhat low level of agreement observed with the crocodile farm (37.2%) and road upgrade project (45.0%) projects (Appendix 8).

6.5 Discussion: Capacitation and educative perspective of public participation

Quite considerable with the research findings is that the majority of the respondents considered the process to have capacitated them in terms of basic skills (to conduct EIA and public participation), values, attitudes and knowledge acquired about environmental issues (like environmental protection and conservation). Similarly, other forms of research have found that public participation creates scope for the citizens to develop skills (O'Faircheallaigh, 2010; Morrissey, 2000) and be educated (Hasan, *et al.*, 2018). This purpose for public participation in EIA is considered problematic by some scholars (Cooper & Elliot, 2000). Provided within environmental legislation is that participants should be developed in terms of skills and capacity which will in turn help them to achieve equitable and effective participation (NEMA, Act 107 of 1998, as amended) (DEA, 2017). This provision makes the process of public participation two pronged: being educative and compliant in terms of EIA regulations. While this is not impossible to achieve, much needs to be done in terms of planning given the contextual nature and composition of the rural communities in the study area. Precisely, this nature of public participation can become overwhelming for a novice EAP and complex to carry out without critical planning and foresight of inherent problems associated with this process. Basically, the primary objective of inviting stakeholders for public participation is not to educate them about environmental issues and EIA process, as perceived by all four EAPs but to ensure that the application for project authorisation is successful. All other purposes and objectives of public participation are basically considered of secondary importance by the EAPs. Put categorically, to the EAPs, the mandate

that public participation should enhance acquisition of knowledge, skills and values as prescribed by the EIA regulation (DEA, 2017) is not bestowed upon them and as such they should not be held responsible.

In practice, EAPs prefer to conduct a process that is precise, concise and without hiccups (Rossouw, *et al.*, 2003). In essence, multi-purposing of public participation as a process does not receive approval of the environmental consultants given its time consuming nature. To the EAP, invitation of I&APs for a public participation meeting is a necessary requirement for EIA purposed at affording them opportunity to make inputs and contributions that will positively influence decision making for the envisaged development project. However, to be able to make meaningful contributions and inputs thus making public participation effective, the general public as part of I&APs must be capacitated first. Basically, there is a need to capacitate the general public in terms of knowledge, skills, information, rights, values and attitudes before engaging them in EIA deliberations (DEA, 2017). These efforts and interventions can make public participation process more effective and objective and the involvement of the general public meaningful. In doing this, time can be saved and the purpose achieved in a reasonable space of time because all the participants will have some form of orientation and will thus in the process eliminate unnecessary issues and behavioural traits unwelcome in open and deliberative discussions.

Basically, issues like personal or individual preferences, expectations and interests can be pruned off in the preceding encounters before actual public participation sessions take place. Put in simplicity, it is therefore imperative to build public awareness regarding environmental issues and EIA procedures as it helps the public to make informed contributions and inputs during public participation meetings which can be rigorous at times. Pre-public participation sessions like workshops and awareness campaigns have been found to be very effective where civic organisation members were given responsibility to discuss project information and publicise their impacts to the general public (Hasan, *et al.*, 2018).

Explicit with the manner in which EIA process has been conducted by various EAPs for the projects presented is that there are various perceptions, expectations and perspectives influenced by many factors which have nothing to do directly with the process itself. Communities from which I&APs were drawn have different beliefs, inclinations, political orientations and level of education which in turn play a pivotal role in influencing their judgements. The nature and composition of the communities from which I&APs are drawn cannot and should not be ignored as this may

determine the success or failure of the EIA process. Put in simple terms, though there are stipulated EIA guidelines and regulations on how public participation should be conducted, the outcomes vary from one project to the other as they are determined by their structure and influence of the communities involved and the varying level of EAPs' expertise, experience and integrity. Implicit with this assertion is that given the situation, public participation for the identified development projects did not yield the same outcomes despite being subjected to "similar" EIA procedures. Succinctly put, the nature and composition of the I&APs may call for a particular approach (or combination of approaches thereof) in conducting public participation process. In essence, EIA involves environmental decisions which have intricate dimensions (Hourdequin, *et al.*, 2012). In other words, there are several contextual factors which should be considered by the EAP in designing an effective public participation process since an overlook of this important aspect may render the whole EIA process devoid of its prime objective.

The empirical evidence presented herein confirms that the format in which the process of public participation was carried out for EIA varied from one project to the other despite them being regulated by the same piece of legislation (NEMA). In this context, this is also compounded by the manner in which different individuals within the community expressed their perception with regard to, for instance, the benefits they can derive from the development project. Whilst there is variation in terms of how the respondents identified with the development projects, this is also a depiction of how differently public participation has been conducted by the respective EAPs. This type of attribute cannot be objectively evaluated and as such what might have informed their perceptions about the projects may to a certain extent differ from one person to the other – hence this outcome. Precisely, what may be perceived good by one person may not be necessarily good to another solely because it may not meet the individually perceived standards or criteria. With some participants, once they feel positively inclined to a particular project they can help in terms of successfully implementing that particular project as well as enhancing its legitimacy. To others, the existing underlying conflicts within the community may have found a platform for discussion and in the process fester other problems or issues during public participation for EIA. This is confirmed by the fact that the empirical evidence presented with regard to conflict resolution by public participation doesn't have absolute majority of the participants agreeing that this process helped in resolving conflicts. This has been confirmed by one of the key informants from Musina residential development project: "These types of meetings sometimes reveal how deeply divided we are as a community. Old issues sometimes resurface and make the situation even worse. Some people have fraudulently acquired South African citizenship and are now at the forefront of

seeking skills development and job opportunities. They think that we don't know them." This is suggestive of the fact that, at times, public participation meetings become fertile ground for festering divisions amongst community members. In the context given, some community members feel that there are those who should not be entitled to any benefits from the project and the process itself since they have acquired South African citizenship fraudulently. This cannot help in terms of conflict resolution with regard to EIA issues under discussion but further exacerbate conflicts because of deep seated issues like xenophobia.

6.6 Communities' level of satisfaction about public participation for EIA

As is the case with previous scenarios, responses concerning the four development projects with regard to satisfaction level of communities about impacts identified are varied. Concerning the notion as to whether possible impacts were adequately identified, respondents at the crocodile farm showed the lowest level of satisfaction at 25.5% whereas most of the respondents (58.8%) were undecided. Also with almost similar level of satisfaction regarding the adequacy of identification of possible impacts was depicted at the road upgrade construction (39%). There has been a reflection of high level of satisfaction by respondents from the residential complex construction (58.8%) and resort construction project (88.7%).

Regarding the adequacy of the determination of environmental impacts, the high level of satisfaction was depicted by respondents at the resort construction project (88.7%). However, the road upgrade construction displayed the lowest level of satisfaction at 27% with most of the respondents undecided (47%). Respondents at the crocodile farm were generally undecided (44.1%) in terms of adequacy of determination of environmental impacts whereas those who pleaded satisfaction were 34.4%. The residential complex development project showed a satisfaction level by respondents at 48.1% with those undecided at 36.3%. Regarding the consideration of impacts and alternatives, the highest level of satisfaction (75.2%) by respondents was recorded at the resort construction project. However, the rest of the development projects received low level of satisfaction: residential complex 47% with 34.3% undecided, road upgrade at 40% with 35% undecided and crocodile farm at 34.3% with 45.1% undecided.

Adequacy of address of issues and concerns of participants had the highest level of satisfaction (82.5%) by respondents at the resort construction project however the rest of the projects had somewhat low level of satisfaction: residential complex 51.9%, with 31.4% undecided, crocodile farm at 36.2% and 42.2% undecided and road upgrade construction at 36% with 38% undecided.

Recommendation of mitigation measures drew the highest level of satisfaction with the resort construction project at 84.6% followed by residential complex development project at 54.0%. The level of satisfaction was low at the following projects: road upgrade construction at 33% with 29% undecided and crocodile farm at 23.5% with 54.9% undecided (Appendix 9).

6.7 BARs and S&EIR review

There is a stark variance amongst responses generated by respondents with regard to logistics pertaining to how EIA has been conducted in the four development projects. The crocodile farm project has shown lack of compliance with regard the registration of I&APs which was at 12.7%, invitation for comments at 15.7%, access to comment on reports at 12.7%, attachment of public comments on the final report at 9.8% and response to the comments made by the public at 13.7%. A better improvement in terms of the mentioned aspects of logistics was shown by the residential complex project whereby the registered public to become I&APs was at 52%, invitation to make comments at 53.9%, access to make comments on the reports at 38.2%, comments attached to the final report meant for submission at 35.3% whereas response made to the comments was at 49%. The highest and most favourable responses to the issue of logistics pertaining to how to conduct EIA was observed with the resort construction project where registration of members of the public as RI&APs was at 79.4%, invitation to make comments was at 83.5%, access to make comments at 71.1% attachment of public comments to the final document at 63.9% whilst responses made to the comments submitted stood at 84.5% the level of compliance with regard to administrative logistics for the road upgrade project was at an average of 30% for all the five aspects (Figure 6.1).

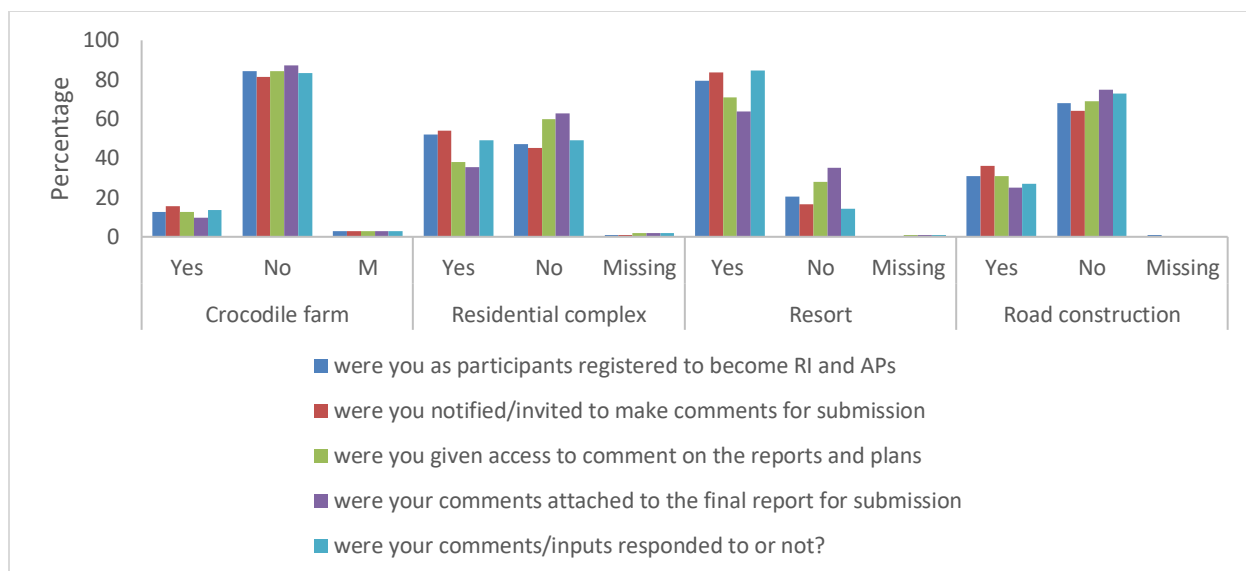


Figure 6.1 Administrative logistics regarding EIA reports

6.8 Discussion: EAPs' practice versus community expectations

Community expectations are varied particularly because they are determined by different factors. For instance, political and cultural inclinations are determining factors influencing community perceptions of how public participation meetings are carried out within their vicinity. Another point to note is how individual community members show their satisfaction regarding how public participation for EIA was conducted and this is usually evaluated subjectively due to variations in terms of previous experience, educational status and at times even gender. Nonetheless, the manner in which EAPs conducted public hearings compounds the already complex issue. The issue of objectivity and independence by the EAPs as required by EIA regulations is still a matter of serious concern. Findings in this context have it that not all possible environmental impacts of the projects were disclosed let alone being adequately addressed. The same observation of lack of independence and objectivity as displayed by EAPs was noted on the determination of significant impacts on the environment and so was their consideration as evidenced by the minutes of the public hearings. Furthermore, consideration of recommendations made for the mitigation measures seemed to be a desktop analysis as two of the four projects have their EMPs initially rejected before they were reviewed because they were not meeting the required standards and specifications. In general, EAPs practice for all the projects never fully met communities' expectations. "To some of us, this thing was a waste of time because only those who are politically connected benefited by getting jobs" (Key informant for access road upgrade project). The manner in which public participation is conducted whereby participants are not given opportunity

to influence decisions made creates uncertainty regarding their future role in the process (Hasan, *et al.*, 2018).

6.9 Factors influencing community expectations for EIA public participation

In this Chapter two sub-hypotheses were tested, namely:

- Community members' expectations for attending EIA public participations is a factor of their demographic profile (i.e. their age, gender, education status, employment status);
- Community members' expectations for attending EIA public participations is a factor of their past attendance of EIA meetings and understanding the process of EIAs.

In the beginning of this study and in the literature review, it was apparent that community's expectations for attending the public consultations were different from those set out by the legislation and environmental experts. It was hereby hypothesized that the majority of community members attend public consultations with the expectation that they will be trained or get job opportunities. Regarding what the rationale for public participation is, findings of the survey in Table 6.4 show that only 5.5% of the participants indicated that public participation during the EIA process is for environmental protection, with a high proportion of females (66.00%) indicating that it is for job opportunities and high proportion of male respondents (53.20%) indicating that it is for skills development. Tables 6.4 and 6.10 show that there was statistically significant differences by gender in expectations from the public participation, with a significantly higher proportion of males indicating that their expectation from the public participation process is for skills development.

- **Justification of the hypotheses:**

With reference made to the results presented in terms of expectations from public participation and gender, results have revealed that there is a statistically significant difference by gender in expectations from public participation that males' preference is for skills development than environmental protection and job opportunities. Basically, skills development seems to be a sustainable solution to poverty since job opportunities provided during the projects are usually available for a short term. In that most rural community members are unemployed and that jobs provided by development projects are usually for a short term, skills development seems to be a better option for males in particular because they can be capacitated to fend for themselves even beyond project's lifespan. This observation mirrors that of Simpson and Basta (2018) in that public

participation offers participants with opportunities for skills development. Generally, females' expectation during public participation meetings is mainly job opportunities since most of them have to find instant economic solutions for themselves and their kids. In this regard, community expectations thus do not correlate with those of EAPs and environmental legislation where the prime purpose is environmental protection rather than job provisioning and skills development. Furthermore, it was also expected that different age groups will have different expectations for attending public participation with the youth and adults vying for job opportunities more than the elderly people. The hypothesis that the youth and adults attend public participation meetings for job opportunities is hereby accepted. A correlation was also established that respondents with more than grade 12 qualifications attended public participation meetings with the expectation of environment protection. However, with all variables taken into consideration, it is hereby established that there is no correlation between the EAPs expectations and those of the community members with regard to attending the public hearings for EIA.

6.10 Chapter summary

This chapter dealt in depth with the research instruments used to solicit responses from the public (questionnaire) and interviews conducted with the key informants. Consideration has been made to ensure reference to the four development projects. Various responses have been looked into as part of the empirical evidence solicited during this research study and findings have indicated that EAPs practices were to a great extent not in line with communities' expectations and some EIA regulations. This observation was also confirmed by research studies in other areas. Several hypotheses were tested and some accepted in terms of their correlation with the presented results. Overall, the null hypothesis that there is no relationship between the EAPs expectations and the community's expectations from the public participation process was accepted. Regarding findings as based on the specific objective for this chapter, generally, EAPs are only qualified to conduct EIA procedures and as such have shown incompetence in conducting public participation due to lack of requisite expertise. Another point to note is that EAPs did not conduct separate public participation meetings for the vulnerable and disadvantaged people as required by EIA legislation (perceived process manipulation). Of serious concern though, is that communities have shown high levels of dissatisfaction due to the fact that not all of their interests, concerns and preferences were adequately and effectively addressed. The next chapter is purposed at designing a framework for the improvement of public participation practice through a context-based adaptive approach.

CHAPTER 7: CONTEXTUALISING PUBLIC PARTICIPATION IN EIA PRACTICE

7.1 Introduction

On the background of findings and discussions made with regard to how public participation for EIA has been conducted in the study area in reference, this chapter seeks to provide innovative measures to help ameliorate the current state of affairs and suggest improvements and way forward with the aim of ensuring that future development projects are ecologically sustainable. Though there is a general view that public participation is an integral component of EIA, as is the case in point, there is however a need to make it desirable, equitable, efficient and more effective in practice. In this chapter, the rationale for an improved public participation process for EIA is hereby discussed and a strategic framework developed so as to make the process more effective and contextual in practice.

7.2 Linking empirical evidence with the research aim

With the research study now completed, it is therefore imperative to locate the empirical evidence to the purpose of this study. The central aim of this study is to evaluate the extent to which Environmental Impacts Assessments of selected development projects in Vhembe district comply with the public participation process as stipulated by EIA regulations and guidelines as provided in environmental legislation of South Africa. The empirical evidence as purported by this research study is that generally, community members in Vhembe district have limited comprehension of how EIA process and public participation should be conducted and so it is the same with the issue of their rights particularly regarding how fair the process should be in terms of their treatment during public participation meetings. In that most of the community members are not educated, their level of comprehension of environmental legislation is virtually non-existent and this handicaps their contribution when it comes to the exchange of information during deliberations. Generally, public naivety in terms of applicable legislation for EIA and public participation alike open them up for manipulation by EAPs during public participation meetings and other forms of public engagements.

Quite concerning, however, is the tendency by practitioners to just stick to the minimum requirements of legislation without making efforts to go an extra mile in facilitating public participation process as an integral component of EIA. Precisely, practitioners don't go beyond the requirements in their execution of duties. To the practitioners, public participation in EIA is viewed as onerous a process which should be scrapped in order to help speed up the

authorisation process by the competent authority. Some scholars concede that EAPs consider public contribution as time wasting in that the public lacks capacity to engage technically. Generally, practitioners consider input by ordinary members of the public as insignificant, irrelevant and uninformed. Essentially, public participation as part of EIA process is considered by practitioners as a waste of time and therefore an unnecessary requirement for this procedure. In the wake of this, EAPs tend to manipulate the process for their own interests, for instance, soliciting project approval in the shortest time possible and without hiccups. More importantly, public participation is considered a risky process in that community members cannot handle confidential information and as such prospects for a successful application are jeopardised by their involvement (Hourdequin, *et al.*, 2012).

Of note, however, is that EAPs and community members in general do not always find each other during public participation. Their expectations are not only varied but also competing and conflicting at most of the times. For instance, EAPs strive to have successful applications and as such may present “compliant” documents to the competent authority without following due process particularly when it concerns public participation. On the other hand, community members are concerned about opportunities for jobs and skills development. In the wake of this unfortunate circumstance, EAPs and community members usually spend most of the time speaking past one another and in some instance even rendering public participation process chaotic in that their expectations and preferences are usually diverse and polarised. In contrast, where the practitioners and community members happen to find the common ground during deliberations at times it is due to collusion to subvert applicable environmental legislation and agree on an ecologically unsustainable proposal for a development project. This usually comes into play when both parties try to avoid confrontations or delays and dash for a win-win situation.

7.3 Need for the development of public participation framework in EIA practice

Given the situation and the context in which public participation is being currently carried out in Vhembe district, there is a need to implement new innovations and urge desire to go beyond the requirements if public participation must remain a credible and necessary component of EIA. There is a need for new approaches to public participation and creating cycles of engagements and effective techniques for deliberative participation as opposed to single opportunities (Sinclair & Diduck, 2017). It is therefore imperative to consider contextual factors pertaining to project type and magnitude; and the nature and composition of the stakeholders/participants if public participation is to be made a desirable and effective tool for EIA. The findings revealed by the

empirical data solicited in this study are indicative of the concerning gaps evident in EIA regulations and guidelines for public participation in practice. Quite precisely, the currently issued document by DEA on public participation guidelines is not inclusive and considerate of public participation goals and objectives. The provision within NEMA Section (2)(4)(f) that requires people to be capacitated in terms of knowledge acquisition thereby making public participation effective (DEA, 2017) is glaringly overlooked in practice. In order to help improve on the deliberative discussions and contributions by community members during public participation meetings, this study suggests that environmental non-Governmental Organisations should help capacitate community members in terms of skills and knowledge acquisition. This can help expedite the actual process of public participation since community members will participate as informed and capacitated stakeholders thereby making deliberations more interactive and effective.

As is currently the case with the new public participation guideline document, the public is required to make written comments and make submission thereof within thirty days and failure of which will imply that there were no comments made (DEA, 2017). This is what Sinclair and Diduck (2017) are wary of in that in practice, the process of public participation has become passive and as such denies the public opportunity for dialogue and discussion. This form of participation is not only passive but also exclusive in nature because not every stakeholder will have access to such opportunity to make submission of the required comments. In actual fact, this (plat)form of participation eventually leads to participation deficit as the process can no longer be interactive. In the wake of these assertions, the greater masses of the people, by virtue of them being illiterate, will continue to occupy the back benches of deliberations during public participation as they will not be equipped to make meaningful contributions. This study therefore suggests that NGOs should have a role in the capacitation of community members regarding EIA and public participation process. Accordingly, Li, *et al.*, (2018), concede that when public participation lacks inclusivity, the realisation of sustainable development is difficult. In its current state, this EIA document (that seeks to make public participation inclusive and effective) will continue to expose the vulnerable and disadvantaged people to anthropocentric decisions favouring injudicious and ecologically unsustainable development activities.

Secondly, in that public participation has been found wanting in practice because of the various inconsistent methods, mechanisms and approaches applied by various EAPs is a cause of concern. This is indicative of the challenges and shortcomings characterising the process in

practice. Succinctly put, even though public participation as an integral component of EIA has guidelines and principles prescriptive of the manner in which it should be conducted in practice, there is still no standard procedural framework for its implementation. Under this circumstance, as evidenced by the empirical data in this study, EAPs approach and implement this process differently, and this kind of practice leads to inconsistency thus rendering the process flawed and therefore undesirable. Furthermore, without standard procedural framework for implementation, evaluation of the meaningfulness and necessity of this process in EIA is virtually impossible and as such lacks credibility. In this regard, evaluation of public participation as a process cannot be objective. This is so precisely because quality participation needs to go beyond procedure or checklist approach if it has to benefit decision-making and participants in a substantive way (Simpson & Basta, 2018). However, a meaningful and effective participative process includes amongst other items: integrity, accountability, fair notification, inclusiveness, capacity building and a positive communication environment (Steward & Sinclair, 2007) but unfortunately with the current state of affairs in Vhembe district this is far from being realised – hence a need for this intervention.

7.4 “Public participation” before public participation

A well prepared process can be very cost-effective in the long run. This study seeks to suggest a need for a programme that should be put in place and followed precisely before actual public participation takes place if goals and objectives for this process have to be realised. Accordingly, Simpson and Basta (2018), maintain that structuring public participation can provide practitioners with a format that can make public participation for those affected by the proposed project necessary and effective. This is much so because as per EIA guidelines, public participation is expected to make consideration of inputs made by those likely to be affected by the proposed development (DEA, 2017). To make this possible in a more considerate manner for human rights, in particular right to privacy, “public participation” before actual public participation is thus necessary. This, in essence, can make the environment for personal disclosure of needs, preferences and values conducive unlike during a formal public participation format which can be uncomfortable to others particularly the vulnerable and disadvantaged masses of people commonly found in rural areas. Furthermore, this can as well help avoid what can be termed passive public participation which Hasan, *et al.*, (2018) observed in their study in Bangladesh where local people were found to be inexperienced and as such became silent listeners. Basically, ubiquitous interactions between authorities and the public make public participation more proactive and in the process persuasive strategy increases participation by the public (Lee, *et al.*,

2017). Put differently by Eiter and Vik (2015), the process of public participation that encourages active participation by the public particularly during planning process makes the process effective.

7.4.1 Organising and planning for public participation

According to Sinclair and Diduck (2017), current developments require public participation to have newly designed programmes whereby new approaches are incorporated with the aim of supporting public participation. This helps to make the process interactive and adaptive. In the wake of this assertion, it therefore is implicit of the notion that there is a need to create new plans for public participation. In this case, this planning can help improve public participation by making it meaningful in that community members will be orientated about the envisaged proceedings before the actual process starts. The responsibility of organising, planning and co-ordinating this process should be given to the locally based designated NGO which is conversant of the local inherent contextual factors. This pre-public participation session must be attended by all the potential stakeholders and as such will be beneficial to all as it helps to ensure that the newly designed approaches are relevant to the context thereby encouraging process effectiveness (Sinclair & Diduck, 2017).

Planning in this manner can also help in establishing relationships amongst the different stakeholders in that this will provide opportunity for the NGO to have public's expectations and preferences interacted with (by the facilitator and stakeholders) and reconciled well before actual public participation in case they are conflicting or competing. This is also very crucial in building trust amongst the stakeholders. It is during this preparatory session that the facilitator will determine the requisite skills and expertise for a participative and meaningful participation programme. This includes resourcing the process by ensuring that there is adequate staff and finances. The assigned NGO staff must have the requisite skills, expertise and experience; and this is attainable through training work exposure and workshops amongst other means. In the process, identification will be made where there are gaps requiring capacity development and training on the side of the facilitating team so as to ensure readiness (EPA, 2019). Furthermore, this process will help the participants to locate themselves in the bigger picture and as such know how they will contribute in terms of making inputs. The need for prior planning for public participation is necessary because this process is dynamic in nature. In this regard, the dynamism of public participation as a process requires concomitant strategies to make it an efficient and effective tool in the EIA procedure. For instance, in order to address smaller communities, the form of communication suitable for this is public meetings (Jiang, *et al.*, 2016).

7.4.2 Stakeholders' identification and profiling

It is therefore imperative to conduct a situation analysis in order to determine the right group of participants in the process (EPA, 2019). Owing to the fact that different stakeholders come from different backgrounds, they therefore have varied perceptions, expectations, preferences and interests and as such there is a need for them to be profiled. Communities directly affected by the proposed project should be prioritised. Following them should be a group of those interested in the project or decision. It is, however, advisable to stay alert for new voices including future generations. Also of prime importance are individuals and Non-governmental Organisations (local/provincial/national) with specific interests, pressure groups, organisations with economic/industrial development interests, government agencies, tribal authorities, and more importantly the vulnerable and disadvantaged people (EPA, 2019). Basically, the identification process should be inclusive yet voluntary (not compulsory). Precisely, inclusive stakeholder participation promotes trust and credibility (De Santo, 2016). This exercise will help the facilitator to make careful considerations in determining the form of communication that should be of effective use during the process. Basically, a meaningful public participation depends on effective communication with the stakeholders.

In establishing effective relationship for the meaningful process, it is imperative to be considerate of the local dominant language and the possible cultural differences and accommodate such accordingly. Furthermore, meeting with the participants from onset helps in developing positive relationships necessary for a successful process. For instance, working together with the stakeholders to design the programme for public participation can improve the level of participation by community members in the process (EPA, 2019). It is at this stage of the process that there should be sharing of information thus helping public participants to find ways to be better involved in the process (Zhou, *et al.*, 2019). Put in simple terms by Schroeter, *et al.*, (2016: 122), "prior to commencing with any deliberative process, all participants have to be given the chance to get on the same level of information in order to be able to engage in a sensible and productive debate." This, however, should be the responsibility of the appointed environmental Non-Governmental Organisation (NGO). In this regard, interaction between and amongst stakeholders and facilitators must be encouraged through dialogue as it helps in ensuring effective participation and productive decision making process. It is at this stage that the facilitators will model the type of behaviour that will be productive and eventually make the process successful (EPA, 2019). Also very important at this planning stage is to conduct interviews with

stakeholders on individual basis so as to know about their specific concerns, interests and values thus help to accommodate the vulnerable and disadvantaged members of the community.

7.4.3 Identifying appropriate level of participation

Stakeholder composition presents a unique situation requiring an appropriate approach and given this situation, there is therefore no particular right form of participation. This is a reiteration by communication and collaboration planning theory in asserting that this form of exercise is a collective endeavour. This planning theory facilitates the exchange of ideas and as such promotes coordination of efforts towards sustainable development. When conducting public participation, the choice of a suitable and appropriate form of participation is determined by the prevailing circumstances and contextual factors and this is what the facilitator must be considerate of. For instance, a public notice is a passive form of participation, public hearings constitute consultative participation and workshops are an interactive form of public participation (Jiang, *et al.*, 2016:40). Precisely, a particular stakeholder composition or magnitude of the proposed development activity will call for a particular form of participation. However, it is imperative to be considerate of participation needs and interests of the key stakeholders in order to avoid the disgruntled to seek other avenues to influence the decision (EPA, 2019).

Depending on the nature and composition of the stakeholders as it is with the nature of the proposed project, consideration should be made to select an appropriate level of participation or a concomitant combination of the applicable approaches. Succinctly put, the use of different public involvement techniques as determined by the prevalent circumstances discounts the one-size-fits-all approach. Basically, different public participation techniques are used at targeting different groups or individuals in different but requisite and appropriate ways. For instance, mediation can be used for consensus building whilst open-house approach is best suited to generate input (Jiang, *et al.*, 2016). With this, it is therefore apparent that an inappropriate use of a particular approach for a particular objective may not bring the desired results. “A good intention, with a bad approach, often leads to a poor result” (De Santo, 2016: 95). Of the possible choices, the following levels of participation are identified: inform, consult, involve, collaborate and empower (DEAT, 2002). As noted by De Santo (2016), the lowest rung of participation is “inform” and the highest is “empower”. The higher the level of participation, the higher the degree of control the public has over the activities (Langer, *et al.*, 2017). Basically, effectively capacitating and

empowering community members to a point that they are able to conduct a genuinely effective and efficient public participation for EIA is a great move to a bottom-up approach for the process.

However, it should be noted that it is not always the case that the highest level of participation will result into effective public participation. The identified level of participation should be applied with caution during actual public participation as prevailing circumstances during the process may dictate otherwise. Precisely, there should not be a predetermined positioning in terms of the choice made to a point that it gets enforced when the situation has changed. In essence, the facilitator should be flexible and yet firm during the actual public participation process so as to apply appropriate level of participation and adapt the process accordingly.

7.4.4 Preparation for collaborative decision-making process

In order to have an open and yet meaningful public participation, it is imperative for stakeholders to fully understand the decision process to be used as well as how and when public input will be obtained. This can be made possible by allowing participants to gather in smaller groups thus helping them to learn about each other's perceptions (EPA, 2019). Roleplaying this representation of the process can be very helpful. This can help in determining how their respective inputs will be obtained and assimilated; how decision criteria will be established and by who will the final decision be made.

In terms of current applicable South African environmental legislation (NEMA, Act 107 of 1998), decision making is the competence of the competent authority (DEA, 2017). This discussion is not attempting to suggest that provisions of the legislation in terms of decision-making process will be compromised or subverted. However, public participation will remain an integral component of the decision-making process and as such planning will be made as to how stakeholders' inputs will be incorporated in the final decision. This planning step is necessary as it creates a platform where stakeholders and facilitators are at the same learning curve about issues thus be able to develop alternatives and solutions together.

7.4.5 Linking communication platforms with public participation objectives

Once the decision process is determined, it then follows how the public will be informed and this requires an effective and appropriate platform of communication so as to maintain clear expectations among all the stakeholders (EPA, 2019). Basically, not every form of communication

will be suitable and appropriate to every stakeholder and setup. In that prior discussions would have been made with the stakeholders, consensus would have been reached as well as to which form of communication will be used regarding informing, generating input, consensus-building and ensuring agreements. Precisely, the form of communication to be used will be determined by the set objective. However, as a precautionary measure efforts should be made that all stakeholders are informed and exposed to traditional and current forms of communication. This helps in ensuring an informed and deliberate decision appropriate to them and the type of project they envisage to get involved in. Though the provided list is not exhaustive, applicable forms of communication applied in public participation in EIA process include: public hearing, written comments, public meetings, focus groups, workshops, advisory groups, newsletters, interviews, websites, surveys, mailing lists, briefings, open house, social networking (Facebook, twitter, Instagram, WhatAapp, etc) (EPA, 2019). As indicated earlier on in this discussion, these forms of communication cannot be applied for every purpose and at every stage of the process. For instance, public meetings are best suited to smaller communities whereas briefings are generally designed for smaller groups (Jiang, *et al.*, 2016).

Furthermore, newsletters can be targeted to unlimited but manageable participants hence literacy is determinant. Instruments used to generate public input help the participants to share information and express their views. For instance, interviews are meant for individuals or small group and are best suited to learn about individual perspective on issues. Focus groups are purposed at exploring attitudes and opinions in depth for small groups of participants. Public meetings are meant for smaller communities where they will be presented with opportunity to disseminate information and receive comments or feedback from the public. The reiterative is that no one-size-fits-all. For instance, consensus workshops are suitable for large groups of people where less controversial decisions are to be made (EPA, 2019).

7.5 Framework for implementation of effective public participation in EIA

The current situation regarding public participation in theory and particularly in practice has been quite challenging and concerning and so is its evaluation process. In the wake of this, there has been consistent calls by scholars, academics, authors, researchers and practitioners that public participation be redesigned in order to make it relevant, meaningful, effective and a desirable instrument for assessment (Hourdequin, *et al.*, 2012; Glucker, *et al.*, 2013; Drazkiewicz, *et al.*, 2015; Xie, *et al.*, 2017; Sinclair & Diduck, 2017; Hasan, *et al.*, 2018; and Zhou, *et al.*, 2019). Put

rather differently, “there is an urgent need to explore more efficient and effective means and modes of public participation, right now” (Wu, *et al.*, 2017:187). Accordingly, this study therefore seeks to develop a framework that makes public participation context based, flexible and adaptive an approach regarding its implementation and evaluation. This comes on the background that many academics and researchers concede that the one-size-fits-all approach has failed to achieve the set goals and objectives for public participation in EIA (both in terms of process and outcomes).

Basically, the inconsistent and somewhat inconsiderate manner in which public participation is conducted as per EIA regulations is devoid of the prevailing contextual factors thus ultimately undermines the goals and objectives of the process – hence this proposal. However, consideration is hereby made that the application of the proposed context-based adaptive approach to public participation practice and evaluation does not compromise applicable environmental legislations and scientific knowledge. Precisely, creativity, innovation, flexibility and adaptability are requisite for public participation effectiveness due to its context-related challenges. This process is open to new possibilities and solutions. Public participation success hinges on clarification of objectives, responsibilities and obligations. The appropriate approach should be considerate of transparency, openness, honesty and integrity so that it should be considered fair and just (DEAT, 2002).

- **Context-based adaptive process**

This section focuses on developing an adaptive framework for implementation and evaluation of public participation process in EIA. It is hereby proposed that an independent locally-based environmental Non-Governmental Organisation (NGO) be formed and its composition should include honest reputable members whose integrity is beyond reproach. Such members should be representatives of: academics, policy-makers, practitioners, consultants, facilitators and representatives of community structures (including traditional leaders, civic organisations, ward councillors, private landowners; and vulnerable and marginalised persons). This locally based NGO should work in collaboration with the Environmental Assessment Practitioners Association of South Africa (EAPASA). In this context, the NGO can have a monitoring role for EAPASA in that it will be locally-based and as such be in touch with the local community. As and when necessary, the NGO will be in a position to provide indigenous knowledge and the locally based technical expertise. This can also help in terms of easily identifying the contextual factors inherent in the local area. The primary responsibility of this organisation is to ensure credible and

meaningful implementation of public participation for EIA both institutionally and practically. Furthermore, this organisation should be answerable to an independent ethical body thus to ensure that professionalism and high ethical standards are always maintained and adhered to. Basically, there should be a set of obligatory duties, responsibilities and professional standards they must adhere to as proposed in Table 7.1. Actually, the whole process of public participation must be divided into three but functionally interactive and continuous phases as discussed below.

A: Preparatory phase:

In this phase it is suggested that legislative requirement will be promulgated to ensure that an independent NGO is formed of representatives of the local community structures but this should be inclusive of individuals from various fraternities like academy, consulting and relevant community structures. An executive committee must be appointed to ensure that the organisation is professionally administered in terms of logistics, soliciting funds and its day to day running. A successful story regarding NGO-run projects has been recorded in Bangladesh by Hasan, *et al.*, (2018:13) where “NGOs are either entirely or partially funded in the form of loans or grants by international donor agencies where they require them to comply with the set terms and conditions, among which effective public participation at various stages of EIA is a mandatory exercise.” Owing to the stage and level of EIA development in Bangladesh, there is that high likelihood that this exercise of NGO involvement can work for South Africa. “NGOs working in sub-Saharan African nations like South African have recorded success in that they have been found to be very effective to disseminate EIA information thus ensure active public participation” (Hasan, *et al.*, 2018:16). Precisely, the NGO will have monitoring and advisory role in the EIA process but working independent of the EAP yet in a collaboration with the EAPASA. The role of the NGO at this stage is to plan and design public participation programme together with the relevant stakeholders. It is at this stage that relationships are established between the NGO and the stakeholders and also amongst the stakeholders themselves. Doing skills audit amongst the NGO staff members is very pivotal and so is the formation of expert panels. However, once expertise and skills gaps are identified, it is therefore imperative to do requisite training or workshops thus enhance resources necessary to make the process effective.

It is also important in this stage to identify and profile the stakeholders involved. Stakeholders may come from different backgrounds with different and at times conflicting and competing interests, perceptions, preferences and expectations. To solicit these attributes requires appropriate mechanisms – hence a need for a context-based adaptive approach. Efforts should

be made that those attributes are reconciled and competent NGO expert panels should be responsible for this. Furthermore, the expert panel with requisite competence must facilitate orientation with regard to which appropriate level of participation will be used during the actual public participation process. This requires conditioning of varying behaviours of the participants to what will work best for the entire group and process. Of critical importance, is to prepare the participants for decision-making process. Basically, decision making criteria should be established in a consultative and deliberative process where everyone will have a contribution to make and consensus and agreements reached. Lastly, determination of appropriate communication technique suitable for community members, process goals and objectives is made at this stage. This is necessary to ensure that an appropriate technique is used for the right process goal and objective. Also of prime importance is the briefing and capacitation of the expert panels and the stakeholders respectively in terms of EIA procedure. Agreements should also be made amongst facilitators and participants with regard to conflict resolution methods to be used. Such agreements and protocols should be agreed upon during the preparatory phase of public participation so as to help avoid unnecessary confrontations during the implementation phase of the process. With all these being done, a feasible participation platform is created thereby ushering the implementation phase.

B. Implementation phase:

It is in this phase that there will be meaningful interaction between the EAP and the stakeholders involved. The platform established through the preparatory phase of public participation ensures that there is an open exchange of information amongst the role players in a transparent and objective manner. The EAP will thus facilitate the implementation phase of public participation with the NGO assuming advisory and monitoring roles. In this regard, the stakeholders are afforded the right to be informed and also to participate. Transparency in this regard is ensured by making all project documents available for perusal by the stakeholders involved; and questions and concerns raised effectively addressed. The stakeholders inputs made are incorporated into the draft document purposed for submission to the competent authority. This will not only make the process transparent but also participative and interactive.

Furthermore, the final report meant for submission to solicit authorisation from the competent authority has to be reviewed and considerations made by the stakeholders involved (with the assistance of the expert panels of the NGO). In essence, decisions made during public participation should be arrived at through consensus and deliberative agreements. In actual fact,

decisions made will have to be interrogated and in the likely event of conflicts or disagreements, the relevant expert panel within the NGO will facilitate conflict management process amongst the contending role-players as per agreed methods and approaches done in the preparatory phase. Trade-off may be made through persuasion, conciliation, mediation and arbitration so as to ensure that the common ground is found yet without compromising applicable legislations and plausible empirical knowledge available. The decisions made will then have to be enhanced before being implemented. Quite notable is that the implementation phase will be expeditious in that the preparatory phase would have capacitated community members and other stakeholders in order for them to make meaningful contributions thus make the process effective.

C: Evaluation phase:

Evaluation process is a very effective tool of assessment particularly when it is applied in public participation since its success or failure can be determinant of the authenticity of EIA procedure. In this regard, the role of the NGO expert panels will be advisory and this will be made possible when working with the community as it presents them with educative and capacity building opportunity. For evaluation, two facets of public participation will be evaluated so as to determine the success or failure of the process. The two facets are: process or procedural evaluation and outcomes or substantive evaluation. Firstly, process evaluation will focus on the following criteria: transparency, access to information and inclusivity. Secondly, outcomes evaluation will focus on: capacitation or empowerment of community members, quality of the decisions made and influence.

Categorically put, public participation will qualify as being an effective and meaningful tool in EIA only if it is found to be inclusive, fair, transparent, participative, interactive, objective, educative and trustworthy. However, heed should be taken that a successful public participation process does not necessarily translate into a successful project. In some instances, public participation as a process is mutually exclusive of the project it has been designed and planned for. This proposal therefore suggests an extended role of the NGO in that it should go beyond monitoring of public participation process. Identified projects which the NGO monitored and evaluated public participation should be subjected to monitoring and evaluation by the same NGO during project implementation: construction, operation and decommissioning phases since this helps in terms of consistency. Precisely, public participation should not be discontinued once the environmental authorisation for the project has been solicited since this will help to hold the developer liable to comply with all the conditions for the authorisation.

Consideration of lessons learnt during public participation subjected to this proposed framework will be imperative in order to make necessary improvements. In that there is no perfect recipe for public participation in EIA, it therefore calls for adjustments, amendments and modifications as and when necessary. Succinctly put, the proposed framework should be adjusted, amended, modified and realigned accordingly in order to make it an effective adaptive context-based approach yet with consideration made for applicable legislation and scientific knowledge.

Table 7.1 Proposed duties and professional obligations for the NGO

	Duties and responsibilities	Ethical/legislative obligations
A: Preparatory phase:	<ul style="list-style-type: none"> • Organising public participation process: <ul style="list-style-type: none"> ✓ Planning and designing the programme with EAPs ✓ Establishing relationships amongst all stakeholders ✓ Doing skills audit amongst the NGO staff members ✓ Forming expert/consultancy panels • Identification and profiling of stakeholders: <ul style="list-style-type: none"> ✓ Communicating roles, rights, obligations ✓ Setting criteria for participants' roles ✓ Establishing interests, perceptions, preference, etc ✓ Reconciling conflicting interests, perceptions, etc ✓ Registration of participants and stakeholders • Determining appropriate participation level: <ul style="list-style-type: none"> ✓ Adapt participation level according to context ✓ No one-size-fits-all approach (no right approach) • Prepare participants for decision-making: <ul style="list-style-type: none"> ✓ Establishing decision-making criteria ✓ When and how to obtain public input ✓ When are public inputs incorporated for decision ✓ Orientating public in collaborative decision-making • Determine appropriate communication tools: <ul style="list-style-type: none"> ✓ Adapt tools according to pp goals and objectives: ✓ Inform: newspaper, social network, websites etc ✓ Generate input: public meetings, interviews, etc ✓ Consensus building: focus groups, workshops, etc 	<ul style="list-style-type: none"> • Transparency: access to information and right to know • Access to justice: right to be informed and right to participate • Skills and capacity building: Public capacity building for decision-making process • Honest and open process • Conflict resolution: skilling • Inclusivity: participation by all • Learning and educative: • Influence to decision-making
B: Implementation phase:	<ul style="list-style-type: none"> • NGO: monitoring and advisory role • Implementation of public participation in EIA • Meaningful engagement of EAP and Stakeholders with the NGO observing/monitoring • Exchange of information: between public & EAP • EIA draft report: inclusive of public inputs • Final EIA report: review and consideration 	<ul style="list-style-type: none"> • Transparency: access to information and right to know • Access to justice: right to be informed and right to participate • Exchange of information: learning and educative role • Conflict resolution capabilities

	<ul style="list-style-type: none"> • Decision-making process: interrogation & review • Trade-offs: conciliation/mediation/arbitration • Implementation of process decision and project 	<ul style="list-style-type: none"> • Consensus and agreements • Monitoring
<p>C: Evaluation phase:</p>	<ul style="list-style-type: none"> • Procedural and substantive evaluation • NGO works in collaboration with the community • Procedural/process evaluation: <ul style="list-style-type: none"> ✓ Early involvement ✓ Transparency ✓ Access to information ✓ Inclusivity/Representativeness • Substantive/outcomes evaluation: <ul style="list-style-type: none"> ✓ Influence ✓ Quality of decisions made ✓ Follow-up and feedback ✓ Capacitation/Empowerment • Lessons learnt • Adapt/Amend/Modify/Redesign the framework 	<ul style="list-style-type: none"> • Capacitation • Knowledge empowerment • Skills development • Environmental protection • Quality assurance

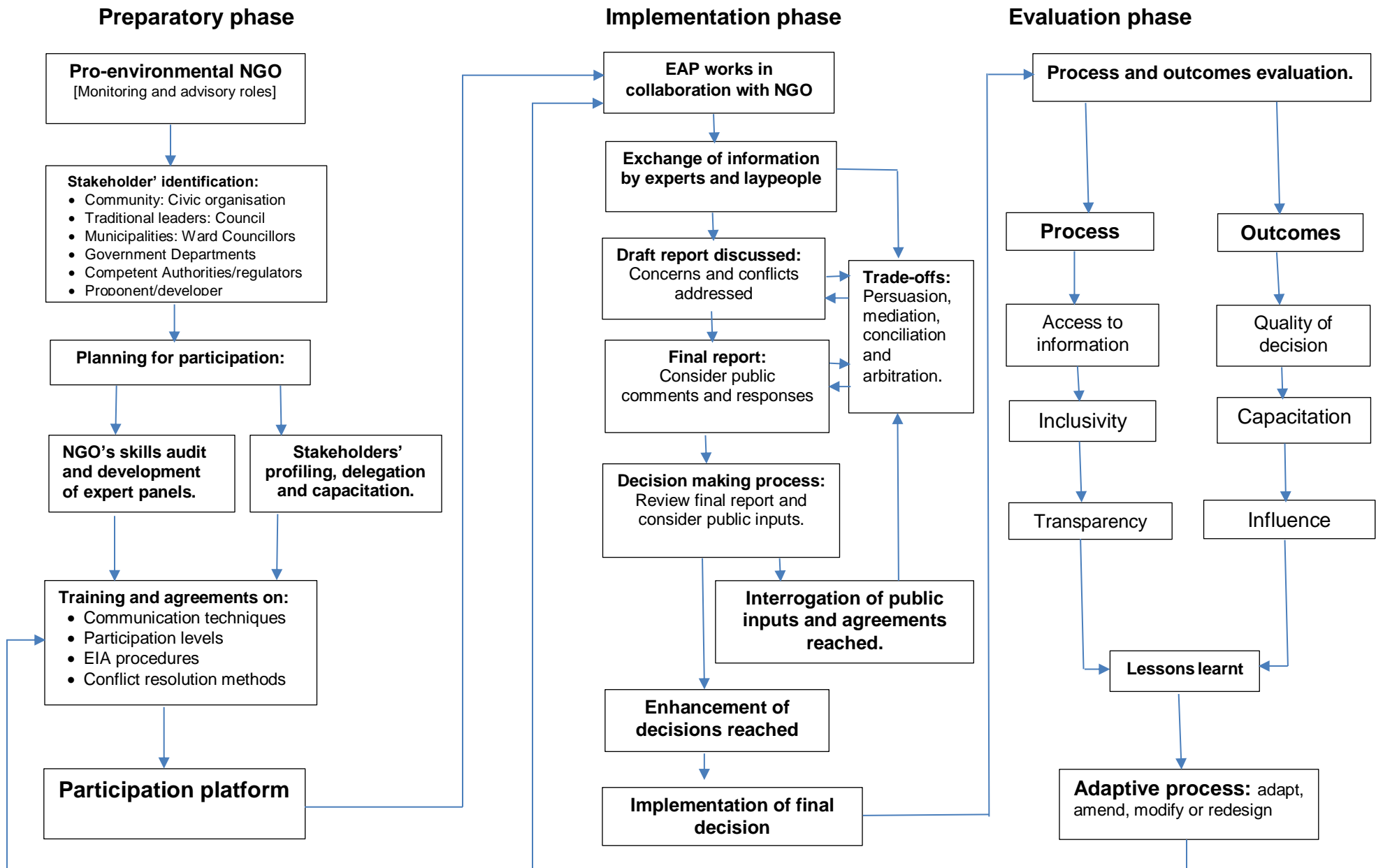


Figure 7.1 Framework for effective context-based adaptive public participation in EIA.

7.6 Framework validation and verification

By nature a framework is not exactly the same with the system it represents. In essence, a plausible framework must implement the assumptions correctly (verification) (Hilton, 2015). It is, however, important to note that validation does not imply verification despite that in practice the two concepts are always mutually inclusive of the other. Quite precisely, verification is intended to ensure that the framework does what it is intended to do and to do that the framework developer should carry out analysis of the framework to ensure that it behaves correctly (Hilton, 2015).

However, validation demonstrates that the framework is a credible representation of the actual system that it reproduces system behaviour with enough fidelity to satisfy analysis objectives (Hilton, 2015). With regard to expert intuition, the framework output must be looked into closely and behaviour will be done through appropriate analysis. Concerning real system measurements the comparison thereof is reliable and preferred way to do validation but in practice this may seem to be infeasible to the high costs this system incurs. Regarding theoretical analysis, if the results of an operational analysis coincide with the framework output it therefore may be considered that the framework behaves correctly (Hilton, 2015).

With regard to this study, the proposed framework was subjected to a rigorous critique by an independent group of environmental assessment practitioners who work with EIA issues on regular daily basis. This therefore presented to them an opportunity to have a critique of the framework as compared to what they do on daily basis, applicable legislations and applicable scientific knowledge. Another point of note is that the same framework was also tested of its validity and reliability by a group of stakeholder engagement specialists one from each local municipality within Vhembe District. What was common amongst the two groups of experts in terms of findings was that public participation involves interaction amongst different stakeholders who have different interests which are at times competing and conflicting. In the wake of this, there are therefore different types of conflicts and misconceptions amongst the participants depending on their level of education status and influence as determined by their religious and political inclinations. For instance, opposition political parties of the ward may oppose the project solely because it may seem to give credit to the current ward councillor. However, the framework provides for the intervention by the expert panels in dealing with various types of conflicts, through mediation, conciliation and arbitration amongst other forms of intervention without any form of bias or partiality. Another point of note is that the conflicts amongst different participants cannot

be resolved through the same form of intervention and in this regard this framework has a provision of expert panels involving different field specialists helping to address conflicts and differences amongst those involved.

Furthermore, the notion of conducting “public participation” before actual public participation as proposed through the framework developed was found to be workable by the critique group of EAPs and stakeholder engagements experts as it is found to help the interested and affected parties in terms of capacitation with regard to EIA regulations and procedure. This has been found to also provide a platform of aligning and reconciling competing and conflicting interests and concerns thereby providing a good platform for the actual public participation process to be carried out effectively and efficiently. In actual fact, this has been found to be a good platform to also set ground rules for the participating stakeholders thereby reducing conflicts. Precisely, the EAP has an opportunity to also make determinations as to which communication techniques, participation level and conflict resolution strategies to use during public participation.

This framework also provides an opportunity to interrogate the inputs and comments made before the writing of the final report which as well is also made transparent for evaluation by all stakeholders. In essence, the draft report is discussed in terms of issues and concerns raised during consultation before the final report is compiled thereby making the process open and transparent. Another key point is the evaluation process, which is not taken into serious consideration in practice is hereby presented through this framework thus bringing in a facet so integral to the entire EIA process in ensuring that sustainable development goals are realised. A critique evaluation by the respective EAPs and stakeholder engagement specialists presented an opportunity for lessons to be learnt and the framework amended, modified and redesigned accordingly thus ensuring that the process is adaptive and context relevant. It has been found that in practice, different EIA projects present different conflicts in terms of their magnitude and complexity and as such cannot be addressed through the same method thereby requiring a context-based adaptive approach for public participation. However, the EAPs and stakeholder engagement experts involved in the process of framework validation and verification complained about the “high level” of resource (time and money) consumption incurred when implementing this proposed framework. Despite the envisaged challenge, this study maintains that the empowered and sustained public participation suggested by this proposed framework will cumulatively eventually offset such costs in the long run. Basically, stronger participatory process, though lengthy and costly, can provide the basis for sustainable development (Mauerhofer,

2016:484). This is because the targeted stakeholders (community members) will be efficiently and effectively capacitated through collaboration with NGO experts to the level that they can run EIAs (public participation included) on their own thus achieve the much needed sustainable environmental management.

7.7 Chapter summary

This chapter contributed significantly to theory by developing a context-based adaptable public participation framework. This, in essence, makes public participation meaningful and an effective tool of EIA procedure. This study proposed a three pronged approach in which public participation has to undergo, thus making it practicable and easy to implement. The first step involves planning for public participation and this helps in introducing the public to the contents and dynamics of the process and the project. It is in this phase where the community members are capacitated in terms of public participation, EIA guidelines and procedures and the necessary mitigation measures for project development. This exercise helps in establishing relationships and equipping the community to make meaningful contributions towards decision making. This phase also prepares an appropriate platform for phase two which is the implementation phase. It is in phase two where the actual implementation of public participation takes place. The already formed expert panels work in collaboration with the EAP on the different facets of public participation as determined by their roles and expertise. Adjustments, adaptations and modifications in the process are effected as and when the context or prevailing circumstance dictates and this is done without compromising on the provisions of applicable legislations and scientific knowledge. Evaluation phase follows the decision-making process in which the application shall have solicited approval from the relevant department. Evaluation phase is dichotomised. It involves process and outcomes evaluation facets. This helps in terms of quality assuring the process of public participation. It is in this phase wherein lessons learnt are assimilated into effecting necessary changes and improvements to the process and the framework.

Public participation in this regard has been formulated in a context-based construct thereby discounting the one-size-fits-all approach which practitioners found not to be a suitable recipe for all projects under all circumstances and contexts. The proposed approach requires adaptation and adjustments as and when the contexts dictate. Furthermore, contextualising on participation level and communication techniques helps in according appropriate means for ensuring an effective and successful process. With this approach, there is an improvement of democratising

decision making process, preventing and mitigating negative environmental impacts, capacitating the local communities in terms of skills and knowledge thus promoting sustainable development of economic activities in the region. Furthermore, sound relationships are established and thus create social harmony and stability for future projects development. Public confidence on the process is established and so it is with government's ability to govern. Categorically put, this pragmatic approach is envisaged to effectively deal with the inherent limitations, challenges and shortcomings of public participation process in current EIA practice.

In essence, this chapter dealt with the exposé` that public participation in its current form in EIA has a plethora of limitations, challenges and shortcomings, hence a need to address these issues. This study has developed a pragmatic framework for public participation that envisages at dealing away with this practical glitch. This exercise has been prompted by the fact that practitioners concede that in its current form, public participation in EIA is problematic and that the currently used one-size-fits-all approach has failed and as such, there is a need for the process to be redesigned. The proposed framework is designed to be context-based and adaptable so as to fit prevailing circumstance thus make public participation more effective and desirable a tool for EIA practice. The next chapter deals with the research conclusions and recommendations.

CHAPTER 8: CONCLUSIONS AND RECOMMENDATIONS

8.1 Introduction

The results generated through questionnaires, interviews and documents' review have led to the development of a context-based adaptable framework for public participation in EIA presented in the previous chapter. This chapter is purposed at presenting the research conclusions and then make necessary recommendations as informed by interpreted data and research discussions made thus address the research aim.

8.2 Research conclusions

8.2.1 Community's level of awareness of EIA guidelines for public participation

In general, the level of awareness of EIA guidelines and regulations for public participation process by the respective communities in the areas where development projects have taken place has been found wanting as depicted by the empirical evidence discussed herein. This can be attributed to a plethora of factors namely: ineffective communication methods for meetings' invitations, lack of environmental technical knowledge and deliberative skills, lack of full disclosure by EAPs and lack of adequate access to information, poor management of public participation process by EAPs and other associated technicalities. The empirical evidence presented indicate lack of awareness of EIA guidelines and procedures for public participation by communities in Vhembe district. Put rather differently, generally the public has a low level of knowledge of EIA process, regulations and guidelines for public participation. Basically, communities' level of knowledge of EIA guidelines for public participation is sorely wanting and as such handicap them in terms of participation during public hearings. However, this study has revealed that there is no absolute correlation between communities' level of awareness of EIA guidelines and regulations for public participation and their demographics.

8.2.2 EAPs' compliance in conducting public participation for EIA

Generally EAPs have complied with some of the minimum requirements for EIA procedure but the EIA reports and EMPr presented were glaringly different implying that there are no standard criteria to determine how public participation should be effectively carried out in practice. EAPs have conducted public participation differently despite the applicable EIA guidelines for the process and this confirms that there is lack of adequate compliance, monitoring and enforcement. There is a disjuncture between communication platforms used by EAPs and the objectives of public participation as evidenced by them being indiscriminately and inappropriately used for

invitation, input generation and consensus building. EAPs were not transparent enough in disclosing information for the development projects and this has been displayed when they have to be prodded during question sessions in order for them to provide more information. The public's right to access information was infringed by EAPs who made such information only available in libraries and through websites which turn out to be inappropriate platforms for the majority of community members who are illiterate, vulnerable and disadvantaged. Though libraries are a legitimate platform through which the general public can be reached out so that they make comments and inputs for EAPs' consideration before finalising applications for decision-making, communities' inability to interact with such documents due to their technicality renders this form of publicity inconsiderate of contextual factors on the ground. Of course this may not be considered an act of deliberately circumventing applicable EIA policy implementation by EAPs, yet a very crucial stage of policy implementation is hereby neglected. Bluntly put, making the information available through websites and at libraries should not be misconstrued at making it accessible since the marginalised communities are disadvantaged and as such cannot access information presented through this kind of communication platform. This is so particularly because these communication platforms are passive in nature and as such do not present opportunity for interactive deliberations. In fact, most of the communication platforms provided for by EIA guidelines for public participation are foreign to the majority of local community members.

8.2.3 EAPs' public participation practice in relation to community expectations

While there is broad consensus amongst scholars that the process of public participation is necessary for effective EIA (Glucker, *et al.*, 2013), there is a need for it to be improved (Andre, *et al.*, 2006), redesigned (Du Pisani & Sandham, 2006), promoted and made more effective (O'Faircheallaigh, 2010) owing to a plethora of shortcomings (Du Pisani & Sandham, 2006) and inherent flaws (Rossouw, *et al.*, 2003) regarding the manner in which practitioners and other stakeholders carry out this process. In practice, public participation in EIA as portrayed in this study is faced with many problems and various limitations. Similarly, Hughes (1998) has found that practitioners have failed within the EIA process to ensure that public participation amongst various stakeholders is genuine. One of the issues of great concern, as noted in this study, is the high level of inconsistency amongst environmental practitioners (within the same region, Vhembe district) whilst using the same EIA guidelines for public participation as promulgated in NEMA (Act 107 of 1998). Precisely, public participation in practice is in a dire situation and as such needs to be improved and made more effective, credible, genuine and an indispensable tool for EIA

process. The empirical evidence in this regard has it that there is no correlation between EAPs expectations and the community's expectations from the public participation meetings.

8.3 Recommendations

This section is dedicated at making recommendations for this research study as informed by the research findings already made. This section is also purposed at answering the research questions already presented. Although these recommendations are aimed at improving the prevailing conditions in public participation in EIA of development projects in the study area referred to, necessary caution should be taken to consider contextual factors and as such avoid considering this approach as a one-size-fits-all. The recommendations made in this study are based on the research objectives as indicated hereunder.

8.3.1 Community's level of awareness of EIA guidelines for public participation

It has been established through this research study that potentially affected and interested communities are diversified and as such should be informed about the proposal for development well in advance and through appropriate and effective means of communication relevant to their contexts. This implies that public participation process must have a framework that incorporates a preparatory phase meant to engage potential I&APs prior to the actual process. It is in this phase that potential I&APs will have access to objective and credible information regarding their rights, responsibilities and obligations concerning public participation in EIA. It is also at this stage where community members are trained and empowered accordingly in order to make public participation process participative and interactive and as such become effective in terms of procedure and outcomes.

Furthermore, it is in this forum where potential I&APs will be capacitated in terms of knowledge regarding public participation guidelines and EIA procedure as per NEMA regulations. This proposal is purposed at promoting an open, transparent, inclusive and participative engagement of the communities in the process. This exercise will make the community appropriately capacitated to make meaningful interactive deliberations necessary for decision-making in EIA. In the wake of this, public participation will be more effective, desirable and genuine a process for EIA. More importantly, this exercise can help the community to have a voice concerning environmental issues within their locality thereby making them to be valuable watchdogs. In this regard, they will question and also subvert unsustainable development projects.

8.3.2 EAPs' compliance in conducting public participation for EIA

Basically, by virtue of the nature of their job, EAPs are not necessarily public participation facilitators. This, therefore, implies that to effectively facilitate public participation meetings requires specialised attributes which include amongst others: personal skills, sound ethical standards and integrity, and sound conflict management techniques. Furthermore, it is imperative that consistent and effective assessment and monitoring of the EAPs or environmental consultants in practice be done by an independent agent (EAPASA) in collaboration with Non-Governmental Organisations (NGOs). This is because NGOs have their roots in local communities and will thus feel indebted to them in terms of accountability. However, to ascertain their impartiality and independence, the NGOs must be accountable to an undisputable ethical body. This alternative gives a different dimension to the current situation where EAPs feel indebted to the developers and accountable to EAPASA only.

Therefore, it is hereby proposed that to achieve high standards of EIA practice, practitioners (EAPs and public participation facilitators) must be effectively and consistently monitored by EAPASA and NGOs. This should be augmented by yearly renewal of practice licence based on authentic and successful appraisal of practitioner's yearly performance. Furthermore, the public should also have inputs with regard to the appraisal of the practitioners' performance. For instance, practitioners' extra efforts to make public participation process successful and meaningful should earn them more points during appraisal.

8.3.3 EAPs' public participation practice in relation to community expectations

It is hereby suggested that there should be effective ways of implementing and evaluating public participation for EIA. In the wake of this assertion, it can be agreed upon that there is a need to be considerate of the contextual factors pertaining to the nature and size of the development project or activity and composition of the participants; and make suitable and appropriate adaptations. In essence, it is virtually impossible that one form of participation technique can be used in all types and sizes of development projects as well as all types of stakeholders. Precisely, it is hereby proposed that a context-based adaptive approach be employed during public participation as informed by prevailing circumstances and contextual factors yet being compliant with applicable legislations and scientific knowledge.

8.4 General recommendation

For credible and genuine public participation to take place, the public must be involved during the early stages of EIA and in the process capacitated accordingly to make sure that they make meaningful contributions to the process. This can be made possible by being transparent in disseminating information to the public and making sure that requisite information is accessible to them by providing project summary in a language and mode of communication that is appropriate, easy to understand, relevant and encouraging participation. Besides the technical executive summary required as part of the report submitted, there should be a simplified version of the summary with the translation done in local language. Simply put, the executive summary of the report must have a parallel version which is non-technical in language also with a translation in a local language. More importantly, whosoever (practitioners, government agencies, developers, etc.) breaks the law must face consequences. Succinctly put, there must be effective consequence management.

Public participation should go beyond the approval stage of the project. The engagement of the public should also cover implementation and monitoring stages of the project. This helps the public in “monitoring” the whole assessment process. With this continuous public engagement, the developer will be compelled to comply with all the aspects in the EMPr thereby ensuring sustainable development. Continuous engagement of the public beyond environmental authorisation will help in verifying the relevance of the mitigation measures proposed. This is in no way undermining the role of the Environmental Control Officer and the provisioning of weekly audit reports but that public participation in this regard will serve as a complementary measure. Efforts should also be made to ensure that there is improvement on compliance, monitoring and enforcement in order to ensure that sustainable development goals are attained.

More importantly, the public review period for water use licence (as regulated in terms of Government Notice R.267 in Government Gazette 40713 dated March 24, 2017; Water Use Licence Application and Appeals Regulations) must be reduced from 60 days to 30 days so as to synchronise it with the EIA projects (regulated in terms of National Environmental Act (Act 107 of 1998), GN No. R.326). This proposed change is warranted by the fact that the public is usually confused regarding the due date for the submission of the comments for consideration in the final report and the review period for water use licence.

8.5 Closing the knowledge gaps in EIA public participation practice

The central aim of this study was to evaluate the extent to which Environmental Impacts Assessments of development projects in Vhembe district comply with the public participation as stipulated by EIA policy guidelines and goals provided within EIA legislation in South Africa. Though public participation is considered a crucial and necessary device for EIA, what has turned out to be of serious concern is the lack of standard criteria for what constitutes good practice in EIA. In the South African context, numerous studies have been carried out regarding EIA and how public participation as a distinguished feature of EIA can be made more effective. Precisely, research studies pertaining to public participation have been focussed specifically to process evaluation. This has left a research paucity with regard to public participation implementation procedure in instances where rural areas present unique contextual factors regarding the dynamism of communities which are largely illiterate and vulnerable. Despite the provided EIA guidelines for public participation, the process has remained out of touch with reality since the one-size-fits-all approach has failed to realise the main objective of this process in practice. Succinctly put, there is no pragmatic procedural framework for the implementation of public participation in EIA compatible to the context presented by areas like Vhembe district. Put rather differently, the unique contextual factors presented by Vhembe district communities require concomitant procedure for the pragmatic implementation of public participation in EIA. Another paucity exposed through this study is the lack of requisite knowledge and skills by marginalised community members which handicap them to make meaningful and deliberative contributions so as to make the process participative. With such capacitation, as ensured by training of expert panels of NGOs, public participation can be made more effective particularly on its substantive performance.

In the wake of the fact that there is currently no definite practical framework for the implementation of public participation process considerate of contextual factors on the ground, particularly in rural areas, this research study has developed a context-based adaptable framework for the implementation of public participation in practice thereby ensuring that the process is plausible and pragmatic. Put in simplicity, developed herein is a framework that makes public participation practice context-based, flexible and adaptable an approach regarding process implementation and evaluation. This is meant to improve public participation process as an integral component of EIA thus make it procedurally and substantively necessary in environmental management for sustainable development. Furthermore, the study area in reference has not been subjected to this kind of study before since no public participation report of this kind has ever been issued. Again,

the study area has of late been subjected to the construction of numerous anthropocentric development projects which turn out to be ecologically unsustainable. In this regard this study has developed the first implementation framework for public participation adaptable for use for current and future development projects in the study area. The size of the study area has provided opportunity for a detailed study of the issue in reference. The results hereof have made significant inputs towards the improvement of public participation practice in general. Some of the procedures suggested in the developed framework can be applied elsewhere in South Africa considering the contextual factors presented by communities in other areas across the country.

Furthermore, this study has provided information for the improved implementation model for public participation in EIA for rural development projects in South Africa. The findings made in this study can also help scholars, academics, practitioners, consultants and decision-makers in environmental management to improve in their areas of competence in terms of issues pertaining to public participation as a concept and its practical implications in different contexts. With this proposed framework, there will be improvement in terms of assessment, monitoring as well as the management of participation activities resulting in ensuring successful development that is considerate of well-being of everyone. Through this framework, members of the community will also benefit in terms of capacitation and skills development thereby leading to citizen control of the EIA and public participation process. Precisely, the sound theoretical and practical articulation of public participation within EIA has significant academic and practical contribution.

8.6 Further research

There is rather an abrupt use and reference of certain aspects within public participation which need streamlining in order to find a way to address this process from the same perspective. This will maintain consistency in terms of terminologies used in order to avoid confusion. Just as much as the concept public participation is contested, so it is with its associated synonyms. Precisely, public participation in EIA has been defined differently by a variety of experts (academics, researchers, authors, practitioners, etc.) in a variety of contexts for different purposes and objectives. The indiscriminate use of terms: approaches, forms and levels of participation; and methods, tools and techniques for communication is not helping the process either. Further research is encouraged in order to make this framework inclusive of various mechanisms and techniques of participation thus making it more effective and a desirable tool in EIA. However, future studies can help in terms of practical validation and necessary adaptations and changes

can be effected accordingly. This can also be done in collaboration with the establishment of approaches that can make public participation necessary even beyond project construction period thus ensure effective management of sustainable development. This is a subject for post-doctoral studies.

8.7 Study limitations

The idea of context-based adaptable approach regarding the framework for public participation is a new conception and as such may face resistance from the practitioners particularly because of its inclusion of a preparatory phase which can be considered to be a resource constraint in terms of time and finance. This is much so taking into consideration that most EAPs tend to only comply with some of the minimum requirements of the applicable legislation. In this regard, this research study cannot be a panacea for every form of problem that can be encountered when conducting public participation in EIA practice. Furthermore, in that practitioners want to conduct EIA at the shortest time possible, this framework for public participation can be considered a burden to the already “onerous” process.

8.8 Summary

This study investigated the extent to which Environmental Impact Assessments of development projects in Vhembe district comply with public participation practice as stipulated in EIA regulations and guidelines provided within applicable environmental legislation in South Africa. This has been done through literature and documents review. Large-sample survey was also conducted within the public and interviews conducted with key informants and the respective EAPs in order to understand problems, challenges, constraints, limitations and shortcomings associated with the practice of public participation in EIA of development projects in Vhembe district. As evidenced by the continuous review and amendments of NEMA, provisions within South African environmental legislation have strong regulatory mechanism but sorely lacks in terms of monitoring and enforcement – hence the lack of standard procedural framework for conducting public participation in EIA practice.

In the wake of this, this study has developed a context-based adaptive framework for the implementation of effective public participation in EIA. The implementation of this framework is envisaged at making the process contextual in practice, participative and thus be more meaningful, effective, efficient and desirable. Given the varied contexts in which public participation is conducted, this framework cannot serve as an absolute perfect plan that can be efficiently applied to all forms of public participation in all EIA development projects under all

circumstances. This framework is therefore not universal but handy because it can be adjusted, amended, adapted and modified to suit prevalent circumstances yet without compromising on applicable legislations and scientific knowledge.

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Appendix 1: Research Ethics Certificate

RESEARCH AND INNOVATION
OFFICE OF THE DIRECTOR

NAME OF RESEARCHER/INVESTIGATOR:

Mr TA Magosha

Student No:

8900993

PROJECT TITLE: An evaluation of public participation process in environmental impact assessments of development projects in Vhembe District.

PROJECT NO: **SES/19/ERM/07/0805**

SUPERVISORS/ CO-RESEARCHERS/ CO-INVESTIGATORS

NAME	INSTITUTION & DEPARTMENT	ROLE
Dr NS Nethengwe	University of Venda	Supervisor
Dr NV Mudau	University of Venda	Co - Supervisor
Mr TA Magosha	University of Venda	Investigator – Student

ISSUED BY:

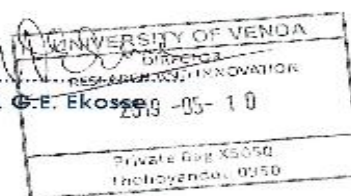
UNIVERSITY OF VENDA, RESEARCH ETHICS COMMITTEE

Date Considered: May 2019

Decision by Ethical Clearance Committee Granted

Signature of Chairperson of the Committee:


Name of the Chairperson of the Committee: Senior Prof. **G-E. Ekosse** 2019-05-10



University of Venda
PRIVATE BAG X5050, TLOKOENG, VENDA, LIMPOPO PROVINCE, SOUTH AFRICA
TELEPHONE: 0151 932 6000/9310 FAX: 0151 932 9000
"A quality driven, financially sustainable, rural based Comprehensive University"

Appendix 2: Permission to conduct the research study

VHEMBE DISTRICT MUNICIPALITY
PRIVATE BAG X5006, THOHOYANDOLI, 0950
TEL: 015 960 2000, FAX: 015 962 1017
Website: www.vhembe.gov.za




Ref: 4/2/1
Enq: Mphaphuli T.K
Date: 27 September 2019

ATTENTION: Magosha T

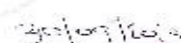
APPLICATION TO CONDUCT ACADEMIC RESEARCH: YOURSELF.

1. Your application dated 01 August 2019 refers
2. It is with pleasure to inform you that your request mentioned above is hereby granted to you.
3. Please contact the GM Community services, Mr Mathule N 0828197397 in order to arrange the starting date.
4. Should there be anything you need clarity on, feel free to call our office at 015 960 3558.

Kind Regards



ACTING MUNICIPAL MANAGER
NDOU T.S



DATE

"A developmental municipality journey or a state of affairs of long and continuous development towards an equal society"

Appendix 3: Public/Community questionnaire

Introduction:

I am Magosha T.A. from the University of Venda (UNIVEN) currently carrying out a research on public participation as part of my doctoral degree. Due to the nature of this research work, it is therefore imperative to carry out a research survey.

Purpose of the study:

The purpose of this study is to evaluate the extent to which Environmental Impact Assessments of development projects in Vhembe district comply with public participation as stipulated by EIA policy guidelines and goals provided within EIA legislation in South Africa.

Commitment and assurance:

I hereby solicit your kind support in this regard as your opinion on the information supplied below is very curial to the quality of this research, and the validity of the outcome. You are hereby assured that the information supplied by you will be treated with utmost confidentiality

I thank you for your anticipated cooperation and kind consideration.

PART A: Demography and personal details:

Please mark the appropriate codes with an "X"

1. Gender:

Male	1
Female	2

2. Age:

18-35 years [Youth]	1
36-55 years [Adults]	2
56 years and above [Elderly]	3

3. Highest qualification achieved:

Less than Grade 12	1
Grade 12 certificate	2
Above Grade 12	3

4. Area of residence/where currently found:

UNIVERSITY OF VENDA	1
MUSINA NANCEFIELD	2
MHINGA VILLAGE	3
MATSA VILLAGE	4
Other (Please specify): _____	5

5. For how long have you been residing at the area you have mentioned above?

0-2 years	1
3-5 years	2
6-8 years	3
9-11 years	4
Over 11 years	5

PART B: Public participation process

Please mark the appropriate code with an "X"

B1. How did you first hear about: road upgrade/residential construction/crocodile breeding farm/resort construction?

Community meeting	1
Public notice (at the library/hall/shop/filling station)	2
Newspaper	3
Radio	4
Other (Please specify): _____	5

B2. Through what did you get informed about Environmental Impact Assessment process for B1?

Community meeting	1
Public notice (at the library/hall/shop/filling station)	2
Newspaper	3
Radio	4

Other (Please specify): _____	5
----------------------------------	---

B3. Which of the above methods of involvement/engagement do you prefer?

Community meeting	1
Public notice (at the library/hall/shop/filling station)	2
Newspaper	3
Radio	4
Other (Please specify): _____	5

B4. Have you attended the EIA public participation meeting/s before?

First time	1
Attended before	2

B5. What were your expectations when you attended the EIA public participation meeting?

Skills development opportunity	1
Job opportunities	2
Environmental protection	3

B4. Please indicate your level of agreement with the information provided regarding reasons for public involvement in EIA process. [1=strongly disagree (SD); 2=disagree (D); 3=unsure (U); 4=agree (A); 5=strongly agree (SA)].

	(SD)	(D)	(U)	(A)	(SA)
a) Public participation is a democratic right.	1	2	3	4	5
b) To involve the public is a legal requirement for EIA.	1	2	3	4	5
c) By involving the public, information is exchanged.	1	2	3	4	5
d) Public participation process helps in involving the public regarding decision-making process.	1	2	3	4	5
e) Application for authorization cannot be approved without record of public participation process.	1	2	3	4	5
f) Public involvement provides opportunity for interaction by different stakeholders.	1	2	3	4	5

B5: Indicate your level of agreement regarding public participation for the EIA conducted in the project you sought approval for. [1=strongly disagree (SD); 2=disagree (D); 3=unsure (U); 4=agree (A); 5=strongly agree (SA)].

	(SD)	(D)	(U)	(A)	(SA)
a) This process presented an opportunity for sense of ownership amongst you as participants.	1	2	3	4	5
b) Public participation served as a means for conflict resolution.	1	2	3	4	5
c) The public was capacitated in terms of skills, values and attitudes through public participation.	1	2	3	4	5
d) The public was presented with an opportunity to learn about the environment.	1	2	3	4	5
e) Through this process, as the public, you had your fears and concerns effectively addressed.	1	2	3	4	5

B6. Please indicate your level of agreement regarding stages at which the public should be involved in EIA process. [1=strongly disagree (SD); 2=disagree (D); 3=unsure (U); 4=agree (A); 5=strongly agree (SA)].

	(SD)	(D)	(U)	(A)	(SA)
a) Planning and design phase.	1	2	3	4	5
b) Screening phase.	1	2	3	4	5
c) Scoping phase.	1	2	3	4	5
d) Preparation of Environmental Impact Report (EIR).	1	2	3	4	5
e) Reviewing of reports.	1	2	3	4	5
f) Decision making stage.	1	2	3	4	5

B7. Please indicate your level of satisfaction regarding information sessions for EIA process. [1=strongly disagree (SD); 2=disagree (D); 3=unsure (U); 4=agree (A); 5=strongly agree (SA)].

	(SD)	(D)	(U)	(A)	(SA)
a) The public was consulted during the planning phase of the project	1	2	3	4	5

b) Adequate information was provided on the negative and positive effects of the project.	1	2	3	4	5
c) The need/purpose of the project was clearly stated when the EIA process started.	1	2	3	4	5
d) Maps and data provided were sufficient enough to help you visualize the project.	1	2	3	4	5
e) Sufficient time was given to assess the impacts of the project and submit inputs/concerns.	1	2	3	4	5

B8. Please indicate your level of agreement with the following statements:

	(SD)	(D)	(U)	(A)	(SA)
a) The time for the meeting was convenient.	1	2	3	4	5
b) The venue for the meeting was accessible.	1	2	3	4	5
c) Everybody was afforded opportunity to participate.	1	2	3	4	5
d) Individuals were allowed to express their views and concerns.	1	2	3	4	5
e) The process enhanced dialogue and agreement for participants	1	2	3	4	5
f) People who were directly affected by the project were personally consulted.	1	2	3	4	5

B9. Please rate your level of satisfaction regarding the process of identifying significant impacts, alternatives and mitigation measures of the project. [1=very dissatisfied (VD); 2=dissatisfied (D); 3=unsure (U); 4=satisfied (S); 5=very satisfied (VS)].

	(VD)	(D)	(U)	(S)	(VS)
a) All possible impacts were adequately identified.	1	2	3	4	5
b) Were you satisfied with the adequacy of predictions of significant impacts and their magnitude?	1	2	3	4	5
c) Were you satisfied by the way in which significant impacts and alternatives were considered?	1	2	3	4	5
d) Were the issues/concerns you raised adequately addressed?	1	2	3	4	5

e) Were you satisfied with how the mitigation measures were recommended?	1	2	3	4	5
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B10. Indicate the level of your satisfaction with regard to the feedback process. [1=very dissatisfied (VD); 2=dissatisfied (D); 3=unsure (U); 4=satisfied (S); 5=very satisfied (VS)].

	(VD)	(D)	(U)	(S)	(VS)
a) Were you satisfied with the frequency of contact between the public and the EAP?	1	2	3	4	5
b) Were you satisfied with the extent to which public ideas generated during consultation contributed to decision making?	1	2	3	4	5
c) Were you satisfied by the changes that were effected due to public participation contribution?	1	2	3	4	5
d) Were you satisfied with the approval of the project?	1	2	3	4	5

B11. Please indicate your choice regarding logistics with pertinence to EIR administration [Either Y=Yes or N=No]

	YES	NO
a) Were you as participants registered to become RI&APs?		
b) Were you notified/invited to make comments for submission?		
c) Were you given access to comment on the reports and plans?		
d) Were your comments attached to the final report for submission?		
e) Were your comments/inputs responded to or not?		

PART C: General conclusive remarks

Which other interventions do you think should be considered/effected to ensure that development is sustainable and that EIA and public participation process go beyond the requirements?

Thank you!!!

Appendix 4: Environmental Assessment Practitioners' interview schedule

Introduction:

I am Magosha T.A. from the University of Venda (UNIVEN) currently carrying out a research on public participation as part of my doctoral degree. Due to the nature of this research work, it is therefore imperative to carry out a research survey.

Purpose of the study:

The purpose of this study is to evaluate the extent to which Environmental Impact Assessments of development projects in Vhembe district comply with public participation as stipulated by EIA policy guidelines and goals provided within EIA legislation in South Africa.

Commitment and assurance:

I hereby solicit your kind support in this regard as your opinion on the information supplied below is very curial to the quality of this research, and the validity of the outcome. You are hereby assured that the information supplied by you will be treated with utmost confidentiality

PART A: Demography and personal details:

Please mark the appropriate codes with an "X"

1. Gender:

Female	1
Male	2

2. Age:

18-35 years [Youth]	1
36-55 years [Adult]	2
56 years and above	3

3. Highest qualification achieved:

Technical/Diploma	1
Graduate degree	2
Post graduate degree	3

PART B: Public participation process

B1. Screening phase:

- a) Did you identify stakeholders and members of the public to be consulted before the start of the project?
- b) Was there any initial contact made with the local people?
- c) Was there any public participation held during planning and design phase of the project?

B2. Scoping phase:

- a) Did you conduct public participation during the identification of key environmental impacts?
- b) Were the local people consulted in order to harness local information about potential impacts of the project?
- c) What media platform and language did you use for public invitation to the meetings?
- d) Did you present the details of the project to the public?
- e) Were the term of reference (ToR) made available for public reviews and comments?

B3. Impact analysis:

- a) Were all the concerns and expectations of all the stakeholders taken into account?
- b) Did you make the draft EIA report available for public reviews and comments?

B4. Mitigation and impact management:

- a) Did you conduct public participation for the identification of mitigation measures?
- b) Did you inform the stakeholders how their issues and concerns will be addressed?
- c) Did you address the views and comments of the public in the EIA report?
- d) Did the final EIA report contain the summary of the public comments and their responses?
- e) Was there any provision made for the public to give input on the post-evaluation of the impacts and mitigation measures?

B5. EIA report review:

- a) Were the public inputs and comments accounted for in the decision-making process?

B6. Implementation and follow-up:

- a) Do you have plans to involve the public in the implementation and monitoring phase of the EIA process?
- b) Did you give the public opportunity to learn about the environment and its protection?
- c) Do you think you were able to capacitate the public in terms of skills, values and attitudes?

PART C:

In your own opinion, how do you think the process of public participation in EIA can be improved?

Thank you!!!

Appendix 5: Interview schedule for the key informants for the EIA projects:

Introduction: I am Magosha T.A. from the University of Venda (UNIVEN) currently carrying out a research on public participation in EIA as part of my doctoral degree. Due to the nature of this research work, it is therefore necessary for me to conduct interviews.

Purpose of the study: The purpose of this study is to evaluate the extent to which Environmental Impact Assessments of selected development projects in Vhembe district comply with public participation as stipulated by EIA policy guidelines and goals provided within EIA legislation in South Africa.

Commitment and assurance: I hereby solicit your kind support in this regard as your opinion on the information supplied below is very curial to the quality of this research. You are hereby assured that the information supplied by you will be treated with utmost confidentiality. I thank you for your anticipated cooperation and kind consideration.

PART A: Demography and personal details:

Please mark the appropriate codes with an "X"

1. Gender:

Female	1
Male	2

2. Age:

18-35 years [Youth]	1
36-55 years [Adult]	2
56 ears and above	3

4. Highest qualification achieved:

Technical/Diploma	1
Graduate degree	2
Post graduate degree	3

PART B: Public participation process

B1. Screening phase:

a) Were you part of members of the public consulted before the start of the project?

- b) Was there any initial contact made with you as part of the local people?
- c) Was there any public participation held during planning and design phase of the project?

B2. Scoping phase:

- a) Did the Environmental Assessment Practitioner (EAP) conduct public participation during the identification of key environmental impacts?
- b) Were you as part of the local people consulted in order for the EAP to harness local information about potential impacts of the project?
- c) Were you as part of the public present with the details of the project?
- d) Were the term of reference (ToR) made available for public reviews and comments?

B3. Impact analysis:

- a) Were all the concerns and expectations of all the stakeholders taken into account?
- b) Was the draft EIA report made available for public reviews and comments?

B4. Mitigation and impact management:

- a) Was public participation conducted for the identification of mitigation measures?
- b) Were you informed about how your issues and concerns will be addressed?
- c) Were your views and comments as the public addressed in the EIA report?
- d) Did the final EIA report contain the summary of the public comments and their responses?
- e) Was there any provision made for you as the public to give input on the post-evaluation of the impacts and mitigation measures?

B5. EIA report review:

- a) Were the public inputs and comments accounted for in the decision-making process?

B6. Implementation and follow-up:

- a) Was there a provision made for you as the public to be involved in the implementation and monitoring phase of the EIA process?
- b) Were you given opportunity to learn about the environment and its protection?
- c) In which areas of life do you think you were capacitated during EIA public meetings?

PART C:

In your own opinion, how do you think the process of public participation in EIA can be improved?

Thank you!!!

Appendix 6: Indication of level of agreement regarding reasons for public participation

Please indicate your level of agreement with regarding reasons for public involvement in EIA process																							
	Crocodile farm %					Residential complex %						Resort %						Road construction %					
	SD	D	U	A	SA	S	D	U	A	S	M	S	D	U	A	S	M	S	D	U	A	A	M
Public participation is a democratic right	-	9.8	23.5	49	17.6	-	9.8	19.6	29.4	39.2	2	-	-	5.2	24.7	69.1	1	3	2.4	2.5	2.8	1.5	5
To involve the public is a legal requirement for EIA	3.9	9.8	17.6	52.9	15.7	1	9.8	14.7	41.2	29.4	3.9	-	-	15.5	28.9	54.6	1	4	2.3	1.9	3.8	8	8
By involving the public, information is exchanged	7.8	5.9	14.7	56.9	14.7	2.0	6.9	17.6	40.2	28.4	4.9	-	1	6.2	33	56.7	3.1	5	1.5	2.9	3.6	6	9
Public participation process helps in involving the public regarding decision-making process	7.8	3.9	22.5	52.9	12.7	2.0	6.9	16.7	41.2	31.4	2	-	1	5.2	38.1	54.6	1	4	1.3	2.7	3.7	1.4	5
Application for authorisation cannot be approved without record of public participation process	7.8	8.8	22.5	52.9	7.8	2	1.7	24.5	29.4	29.4	2	-	1	12.4	25.8	59.8	1	4	2.2	3.2	2.9	8	5
Public involvement provides opportunity for interaction by different stakeholders	10.8	10.8	11.8	59.8	6.9	4.9	5.9	17.6	43.1	26.5	2	-	1	7.2	47.9	43.8	1	8	8	3.3	3.1	1.5	5

Appendix 7: Openness of EIA process for public participation

Level of agreement																								
	Crocodile farm %						Residential complex %						Resort %						Road construction %					
	S D	D	U	A	S A	M	S D	D	U	A	S A	M	S D	D	U	A	S A	M	S D	D	U	A	A S	M
The time for the meeting was convenient	1	13 .7	27 .5	47 .1	10 .8	-	-	16 .7	12 .7	44 .1	24 .5	2	-	1	9 .3	52 .6	35 .1	2 .1	3	3 .3	2 .6	2 .4	1 .1	3
The venue for the meeting was accessible	3 .9	10 .8	27 .5	50	7 .8	-	2 .9	11 .8	18 .6	41 .2	23 .5	2	-	1	9 .3	46 .4	41 .2	2 .1	2	3 .3	2 .8	2 .6	8	3
Everybody was afforded opportunity to participate	3 .9	18 .6	36 .3	32 .4	8 .8	-	1	21 .6	14 .7	20 .6	40 .2	2	-	1	4 .1	27 .4	68	2 .1	-	4 .5	2 .2	1 .9	1 .1	3
Individuals were allowed to express their views and concern	3 .9	16 .7	41 .2	26 .5	11 .8	-	1	10 .8	26 .5	28 .4	31 .4	2	-	1	3 .1	40 .2	53 .6	2 .1	-	2 .9	3 .7	1 .9	1 .2	3
The process enhanced dialogue and agreement for participants	3 .9	20 .6	35 .3	35 .3	4 .9	-	4 .9	11 .8	25 .5	30 .4	25 .5	2	-	1	21 .6	42 .3	35 .1	-	7	2 .2	3 .5	2 .3	9	4
People who were directly affected by the project were personally consulted	3 .9	21 .6	32 .4	34 .3	4 .9	2 .9	2 .9	12 .7	23 .5	39 .2	18 .6	2 .9	-	1	9 .3	41 .2	48 .5	-	4	2 .4	2 .8	3 .2	8	4

Appendix 8: Rationales for public participation in EIA

Indicate the level of agreement regarding public participation for EIA conducted in the project you sought approval for																							
	Crocodile farm%					Residential complex %						Resort %						Road construction %					
	S D	D	U	A	S A	S D	D	U	A	S A	M	S D	D	U	A	S A	M	S D	D	U	A	A S	M
This process presented an opportunity for sense of ownership amongst you as participants	8.8	15.7	25.5	38.2	11.8	4.9	10.8	19.6	39.2	23.5	2	-	1	7.2	45.5	45.5	1	8	2.8	2.7	2.3	9	5
Public participation served as a means for conflict resolution	2.9	25.5	35.3	28.4	7.8	4.9	15.7	18.6	32.4	24.5	3.9	-	1	16.5	45.4	36.1	1	1	2.5	2.1	2.8	8	7
The public was capacitated in terms of skills, values and attitudes through public participation	5.9	25.5	35.3	24.5	8.8	3.9	14.7	27.5	36.3	15.7	2	-	1	18.6	44.3	35.1	1	6	2.1	3.3	2.9	6	5
The public was presented with an opportunity to learn about the environment	2.9	23.5	31.4	28.4	13.7	4.9	12.7	22.5	34.3	23.5	2	-	1	8.2	54.6	35.1	1	9	2.4	3.4	1.6	1.2	5
Through this process, as the public you had your fears and concerns effectively addressed	2.9	17.6	42.2	28.4	8.8	2.9	17.6	19.6	34.3	23.5	2	-	1	9.3	49.5	39.6	1	4	3.3	1.3	3.1	1.4	5

Appendix 9: Level of satisfaction by communities about impacts identification

Level of satisfaction regarding the process of identifying significant impacts																								
	Crocodile farm %						Residential complex %						Resort %						Road construction %					
	V D	D	U	S	V S	M	V D	D	U	S	V S	M	V D	D	U	S	V S	M	V D	D	U	S	V S	M
All possible impacts were adequately identified	1	1 4	58 .8	18 .6	6 .9	-	8. 8	4. 9	25 .5	45 .1	13 .7	2	-	1	8. 2	59 .8	28 .9	2. 1	1 2	1 5	3 0	3 7	2 2	4
Were you satisfied with the adequacy of predictions of significant impacts and their magnitude	3 .9	1 .6	44 .1	27 .5	6 .9	-	3. 9	9. 8	36 .3	36 .3	11 .8	2	-	1	13 .4	60 .8	22 .7	2. 1	5	1 7	4 7	2 6	1 1	4
Were you satisfied by the way in which significant impacts and alternatives were considered	3 .9	1 .7	45 .1	18 .6	1 .7	-	7. 8	6. 9	34 .3	26 .5	22 .5	2	-	1	21 .6	37 .1	38 .1	2. 1	1 1	1 0	3 5	3 5	5 5	4
Were the issues/concerns you raised adequately addressed	3 .9	1 .6	42 .2	22 .5	1 .7	-	3. 9	10 .8	31 .4	28 .4	23 .5	2	-	1	14 .4	46 .4	36 .1	2. 1	4	1 8	3 8	2 7	9	4
Were you satisfied with how the mitigation measures were recommended	3 .9	1 .6	54 .9	10 .8	1 .7	-	7. 8	10 .8	25 .5	26 .5	27 .5	2	-	1	12 .4	45 .4	39 .2	2. 1	1 0	1 5	2 9	3 2	1 0	4

Appendix 10: Proofreading and editing report

PM PROOFREADING & EDITING SERVICES



**CERTIFICATE
OF
PROOFREADING**



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DEAR SIR/MADAM/DR./PROF

This serves to certify that the Thesis for the Ph.D. Degree titled "Evaluation of Public participation process in Environmental Impact Assessments of selected development projects in Vhembe District of South Africa". by MAGOSHA. T. of student number (8900993) has been edited and proofread for grammar, spelling, punctuation, overall style, layout, format and logical flow. The edits were carried out using the "Track changes" feature in MS Word as well as the knowledge of the language, giving the author final control over whether to accept or reject effected changes prior to submission, provided the changes I recommended are effected to the text, the language is of acceptable standard.

Date Issued: 2024/02/02.
With best regards,


.....
MR. P MULAUDZI
BA MS (UNIVEN); BA HONS [BAHELT]

Appendix 11: Turnitin Report

EVALUATION OF PUBLIC PARTICIPATION PROCESS IN ENVIRONMENTAL IMPACT ASSESSMENTS OF SELECTED DEVELOPMENT PROJECTS IN THE VHEMBE DISTRICT OF SOUTH AFRICA

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Word count: 81707

Character count: 470165