

**THE ROLE OF SOCIAL WORKERS IN PROMOTING ENVIRONMENTAL JUSTICE
AT THE TSHWANE METRO**

By

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DECLARATION OF ORIGINALITY

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Declaration

1. I hereby declare that this mini-dissertation is my original work. All secondary material used has been appropriately acknowledged and referenced in accordance with the regulation of the departmental requirements.
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3. I have not allowed, and will not allow, anyone to copy my work with the intention of passing it off as his or her own work.

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ABSTRACT

THE ROLE OF SOCIAL WORKERS IN PROMOTING ENVIRONMENTAL JUSTICE AT THE TSHWANE METRO

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The goal of this study was to explore the role of social workers in promoting environmental justice at the Tshwane Metro. A qualitative research approach was adopted to obtain information on the experiences of the participants from their point of view. Using an instrumental case study design, data was collected by means of semi-structured interviews from 13 social workers employed by the Department of Social Development's Tshwane region in the Temba, Pretoria CBD, Bronkhorstspuit/Ekangala, Garankuwa, and Mamelodi service points.

The findings of the study revealed that a number of environmental issues existed in the Tshwane Metro such as air pollution, sewage pipe leakages, overpopulation, littering and flooding. All community members were affected by the existence of these environmental issues; however those that were poor and vulnerable were mostly affected. The findings also suggested that the social workers who were participants in the study had an understanding of what environmental justice entails and in addition played three critical roles (advocacy, broker and educator) in their communities that are in line with promoting environmental justice. The findings also highlighted that although there were a number of services that were rendered by participants in line with promoting environmental justice; these services were conducted on a minimal scale. The participants mentioned that they needed to be empowered further on ways to promote environmental justice through the social development approach.

Based on the findings, it can be concluded that environmental issues exist in the five communities of the Tshwane Metro where the participants were deployed and this impact negatively on people's lives making it necessary to promote environmental justice. It can be concluded also that the social workers do not have enough knowledge on how to promote environmental justice using the social development approach. Social workers have a significant role to play in promoting environmental justice in the communities they work in. It is therefore recommended that there is a need to develop a programme in the Department of Social Development on promoting environmental justice; include environmental education as part of the social work curriculum. This will help social workers to increase public awareness on the impacts of environmental change and how to preserve the environment.

KEY CONCEPTS

- Environment
- Environmental justice
- Environmental social work
- Social work
- Tshwane Metro

TABLE OF CONTENTS

DECLARATION OF ORIGINALITY	i
ACKNOWLEDGEMENTS	ii
ABSTRACT	iv
KEY CONCEPTS	vi
ACRONYMS AND ABBREVIATIONS	x
CHAPTER 1: GENERAL INTRODUCTION TO THE STUDY	1
1.1 INTRODUCTION	1
1.2 THEORETICAL FRAMEWORK	4
1.3 RATIONALE AND RESEARCH PROBLEM	5
1.4 GOAL AND OBJECTIVES	6
1.4.1 Goal	6
1.4.2 Objectives	6
1.5 RESEARCH METHODOLOGY	7
1.6 CHAPTER OUTLINE	8
CHAPTER 2: ENVIRONMENTAL JUSTICE AS A CONCEPTUAL FRAMEWORK OF SUSTAINABLE DEVELOPMENT IN SOCIAL WORK	10
2.1 INTRODUCTION	10
2.2 POTENTIAL THREATS TO ATTAINING ENVIRONMENTAL JUSTICE	10
2.2.1 Environmental pollution	12
2.2.1.1 Water pollution	12
2.2.1.2 Air pollution	13
2.2.1.3 Land pollution	15
2.2.1.4 Noise pollution	16
2.2.2 Urbanisation	17
2.2.3 Overpopulation	18
2.2.4 Climate change	20
2.3 SOCIAL VULNERABILITY CAUSED BY ENVIRONMENTAL ISSUES	22
2.4 THE ROLE OF SOCIAL WORKERS IN ADDRESSING ENVIRONMENTAL ISSUES	25
2.5 THE SOCIAL DEVELOPMENT APPROACH	28

2.6 SUMMARY	30
CHAPTER 3: RESEARCH METHODOLOGY AND EMPIRICAL FINDINGS	32
3.1. INTRODUCTION	32
3.2. RESEARCH APPROACH	32
3.3. TYPE OF RESEARCH	33
3.4. RESEARCH DESIGN	34
3.5. RESEARCH METHODOLOGY	34
3.5.1. Study population and sampling	35
3.5.2. Data collection	36
3.5.3. Data analysis	37
3.6. Data quality	39
3.7. Pilot study	41
3.8. ETHICAL CONSIDERATIONS	41
3.8.1. Avoidance of harm	41
3.8.2. Voluntary participation and informed consent	42
3.8.3. Violation of privacy/confidentiality	42
3.8.4. Actions and competence of researcher	42
3.8.5. Publication of findings	43
3.9. EMPIRICAL FINDINGS	43
3.9.1. Biographical information	43
3.9.2. Themes and subthemes	44
3.9.2.1 Theme 1: The participants' understanding on what constitutes environmental justice	45
3.9.2.2 Theme 2: Environmental issues that exist in communities served by the participants	49
3.9.2.3 Theme 3: The impact of environmental issues	53
3.9.2.4 Theme 4: Services rendered by participants in line with environmental justice	57
3.9.2.5 Theme 5: The roles of social workers in promoting environmental justice	62
3.10. CONCLUSION	66
CHAPTER 4: KEY FINDINGS, CONCLUSIONS AND RECOMMENDATIONS	67
4.1 INTRODUCTION	67
4.2. GOAL AND OBJECTIVES OF THE STUDY	67

4.2.1 Goal of the study	67
4.3 KEY FINDINGS	69
4.4 CONCLUSIONS	71
4.4. RECOMMENDATIONS	72
4.4.1 Environmental justice as a programme in the Department of Social Development	73
4.4.2 Environmental education as part of the social work curriculum	73
4.4.3 Additions to the social work curriculum	73
4.4.4 Forming multi-disciplinary teams	74
4.4.5 Further research	74
4.5 CONCLUDING STATEMENT	74
REFERENCES	76
APPENDICES	95
Appendix A: Data collection instrument (Semi-structured interview schedule)	96
Appendix B: Letter of permission to conduct research from the Gauteng Department of Social Development	97
Appendix C: Ethical clearance letter from the University of Pretoria	98
Appendix D: Letter of informed consent	99
LIST OF TABLES	
Table 1: Biographical information of participants	43
Table 2: Themes and subthemes	44

ACRONYMS AND ABBREVIATIONS

IASSW	:	International Association of Schools of Social Work
ICSW	:	International Council on Social Welfare
IFSW	:	International Federation of Social Workers
IPCC	:	Intergovernmental Panel on Climate Change
UNEPFI	:	United Nations Environment Programme Finance Initiative

CHAPTER 1

GENERAL INTRODUCTION TO THE STUDY

1. 1 INTRODUCTION

As humanity begins to reach increased understanding of the repercussions of disregarding the environment, it is becoming clearer that the natural environment can no longer be safely overlooked (Shaw, 2011:25). Androff, Fike and Rorke (2017:399) assert that the adverse social concerns of environmental issues, such as pollution, disasters and inadequate access to food and clean water, highlight the influence that social work can have on the welfare of individuals affected by these disturbances in order to affirm human rights and social justice. Human rights and social justice are central to the social work profession (Hölscher, 2011:44). Therefore, caring for the natural environment is a crucial aspect of stimulating economic and social justice (IASSW, ICSW & IFSW, 2016). Dominelli (2012:25) concurs by arguing that affirming social justice today includes addressing issues of environmental justice and care for the planet, and requires a new vision for the social work profession.

The social work profession has made a commitment to promoting global initiatives aimed at achieving social justice, which is reflected in the Global Agenda for Social Work and Social Development [hereafter Global Agenda] (2012). The Global Agenda (2012) consists of four themes that are individually promoted and explored with regard to best practices and challenges across the world in sequences of two years per theme. The Global Agenda's present theme for research undertaken during the period 2016 to 2018 concerns a just and inclusive society. It is referred to as "promoting environmental and community sustainability" (IASSW, ICSW & IFSW, 2016). This theme highlights that protecting the natural environment is a crucial feature of promoting economic and social justice, predominantly for underprivileged societies (IASSW, ICSW & IFSW, 2016). Attaining sustainable development is therefore crucial in this regard.

Achieving sustainable development entails balancing social, economic and environmental factors in an integrated manner (Lombard, 2015:484). Caring for the natural environment is a basic feature of stimulating economic and social justice, particularly for vulnerable populations (IASSW, ICSW & IFSW, 2016). Androff et al.

(2017:399) argue that although vulnerable societies are expected to struggle excessively as a result of environmental issues, social workers have still not adopted a prominent role in responding to these challenges. The researcher agrees with these authors and believes that the challenges caused by environmental issues emphasise the need for social workers across the globe to increase their efforts to achieve the goals of sustainable development. Poverty is a key social disaster and is usually supplemented by the deficiency of environmental rights, with the poor residing in the most tainted social and physical environments and being subjected to industrial pollution and natural disasters (Dominelli, 2012:09). Poor people usually find themselves with depleted resources after being struck by natural disasters.

The social work profession has a role to play in building the resilience of underprivileged societies and those exposed to vulnerable situations (United Nations, 2015:13). This role also entails reducing their exposure and susceptibility to economic, social and environmental shocks and catastrophes (United Nations, 2015:13). Secondly, to be effective, a comprehensive theoretical framework that integrates understanding of environmental issues and their impacts, comprising pollution, the destruction of habitats, industrial 'accidents' and natural disasters, needs to be encompassed in social work (Gray & Coates, 2015:507). It is for this crucial reason that Dominelli developed a new paradigm for practice called green social work; it is embedded in environmental justice, which develops the well-being of societies, the flora, fauna and ecology that support the world's population (Dominelli, 2013:431).

In recent times, the researcher has observed through news platforms that parts of Gauteng have been struck by natural disasters in the form of floods, which resulted in the Jukskei River near Setswetla settlement in Alexandra overflowing and badly damaging at least 42 shacks in a flood during 2016 (Pather, 2016). Water and air pollution is also occurring, mainly caused by mining, inappropriate solid waste removal and poor sanitation in congested inner urban regions. An article published by Kings (2017) also showed that the Tshwane Metro area has the highest level of nitrogen dioxide in the southern hemisphere, caused by air pollution, which has negative implications for people's health. Green issues such as protecting environmental rights and endorsing sustainability are evidently mounting in

significance in social work practice (Androff, et al., 2017:399) Therefore, in the context of this study, the researcher wants to explore the role of social workers in promoting environmental justice at the Tshwane Metro.

The key concepts relevant to the study are as follows:

Environment

Commonly, the concept environment refers to the biophysical environment, including natural resources (e.g. biological, abiotic, water, air and land resources), ecosystems and their services (Wingqvist, 2014:02). In the context of this study, the term environment refers to all external conditions, living and non-living factors that affect people in the Tshwane Metro.

Environmental justice

Environmental justice ensues when all individuals experience similarly increased levels of environmental protection and no group or community is excluded from the environmental policy decision-making process, or is affected by an unequal impact from environmental threats (Nesmith & Smyth, 2015:489). In the context of this study, environmental justice refers to the equal involvement of all people in maintaining a clean and healthy environment that provides adequately for both current and future generations.

Environmental social work

Environmental social work is a method of social work practice that is established on ecological justice principles aimed at assisting communities to produce and sustain a biodiverse environmental ecosystem by adjusting present social work approaches to encourage societal change (Ramsay & Boddy, 2017:68). The study will adopt this definition of environmental social work.

Social work

“Social work is a practice-based profession and an academic discipline that endorses social change and development, social cohesion, and the empowerment and freedom of people from social ills. Principles of social justice, human rights, collective responsibility and respect for diversities are dominant to social work. Underpinned by theories of social work, social sciences, humanities and indigenous

knowledge, social work involves people and structures to address life challenges and improve wellbeing of individuals, groups as well as communities” (IASSW, ICSW & IFSW, 2014). The study will adopt the international definition of social work.

Tshwane Metro

The Tshwane Metro, more commonly known as the City of Tshwane, is the administrative capital city of South Africa, which was established on 5 December 2000 through the assimilation of 14 municipalities that functioned in the greater Pretoria and neighbouring regions (City of Tshwane, [sa]). It is the second biggest metropolis in Gauteng and is among the six major cosmopolitan metropolises in South Africa (City of Tshwane, [sa]).

1.2 THEORETICAL FRAMEWORK

The depletion of natural resources, adverse impact of environmental degradation, pollution, natural disasters, toxic waste dumping, food insecurity and exponential population growth undermine the ability of communities to develop and grow (IASSW, ICSW & IFSW, 2016). Lombard, Kemp, Viljoen-Toet and Booyzen (2012:192) suggest that social workers can be important change agents, adding value in the form of transformational change that could empower marginalised groups and eventually the world at large through the social development approach. This study was therefore guided by the social development approach as the theoretical framework that provides an obvious choice to combat many of the socio-economic and environmental challenges confronting the majority of social work clients and communities (Green, 2008:175).

Midgley (2014, in Patel, 2015:29) defines the social development approach as “a process of planned social change designed to promote the well-being of the population as a whole in conjunction with a dynamic process of economic development”. Patel (2015:30) argues that the social development approach is essentially a people-centred approach to development that stimulates citizen participation and reinforces the voice of the marginalised in decision-making and in building democratic and accountable institutions. She further indicates that human well-being is about the development of people and that the achievement of human well-being is the goal of social development (Patel, 2015:30).

According to Miller et al. (2012:270), by promoting sustainable development through adopting the social development approach, social workers play an advocacy role for ecological justice. Through this role, they also recognise that social and ecological systems are interrelated and fundamentally connected to affirming human rights, social justice and environmental justice (Miller et al., 2012:270). Social development provides a valuable direction forward, given its ability to bring together divergent groups with varied interests in the service of environmental protection and human rights (Dylan, 2013:74). In context of the study, the social development approach assisted in determining the roles that social workers play in promoting environmental justice at the Tshwane Metro through a social development lens.

1.3 RATIONALE AND RESEARCH PROBLEM

At present, dominant social work practice approaches do not promote environmental justice despite social workers possessing the fundamental skills essential for environmental practice as they excel in networking, linking and engaging numerous sectors of marginalised communities, all of which are imperative to attaining sustainable development (Schmitz, Matyók, Sloan & James, 2012:278). According to Ramsay and Boddy (2016:69) the mandate to be environmentally pro-active may be clear; however, the promotion of environmental justice in practice is inadequate, which may be due to misperception or lack of understanding about what environmental justice entails and how it is defined. This may possibly widen this gap.

The challenge for the social work profession and other professions is to break free of their academic silos and work co-operatively, or at least in unison, to enhance understanding of environmental justice and to respond to the numerous proportions of environmental issues (Coates & Gray, 2012:231). Environmental issues play an important role in drawing social work to re-assess its modernist fundamentals, and to change from the primacy of therapy and rehabilitation to recognise people's crucial connection to all of nature (Coates & Gray, 2012:232). Alston (2015:358) argues that during environmental disasters, social workers incline to be more positioned in crisis responses addressing the immediate need for nutrition and water security, shelter, security, relocation and social support. They tend to be less noticeable in policy formulation and planning concerning the environment and disaster risk reduction (Alston, 2015:358).

Social workers are well placed to improve awareness of environmental issues owing to their expertise in advocacy, networking, collaborating, community development and capacity building, which therefore means that they have a responsibility to ensure the attainment of environmental justice (Schmitz, Matyók, Sloan & James, 2012: 284). There is a gap in research on the role played by social workers in promoting environmental justice at the Tshwane Metro. Hence the following research question was formulated for the study:

“What is the role of social workers in promoting environmental justice at the Tshwane Metro?”

The sub-research questions that assisted the researcher in answering the research question were as follows:

- What is environmental justice in the conceptual framework of sustainable social development?
- What is the understanding of social workers of their role in promoting environmental justice?
- What are the services that social workers have rendered that could seek to promote environmental justice?
- What recommendations can be made on how social workers can contribute to promoting environmental justice?

1.4 GOAL AND OBJECTIVES

The goal and objectives of the study were as follows:

1.4.1 Goal

The goal of the study was to explore and describe the role of social workers in promoting environmental justice at the Tshwane Metro.

1.4.2 Objectives

The objectives of the study were as follows:

- To conceptualise and contextualise environmental justice in the conceptual framework of sustainable social development.

- To assess and establish the understanding of social workers of their role in promoting environmental justice.
- To assess whether social workers have rendered any services that seek to promote environmental justice.
- To make recommendations on how social workers can contribute to promoting environmental justice.

1.5 RESEARCH METHODOLOGY

This researcher adopted a qualitative approach to obtain more detailed and personal information from the participants based on their point of view (Fouché & Delpont, 2011b:64). This study was based on applied research, since applied research endeavours to solve problems when applying it in practice, as well as to empower professionals to accomplish specific tasks (Fouché & De Vos, 2011a:95). The study made use of the instrumental case study design to collect data and to look for patterns in the research participants' lives, words or action in the context of the case as a whole (Fouché & Schurink, 2011:320).

For the purpose of this study, non-probability sampling was used, specifically the purposive sampling technique, to draw a sample. Purposive sampling was chosen to illustrate some features or processes that were of interest for the study (Strydom & Delpont, 2011:392), namely to identify the experiences of social workers working in the five selected service points of the Tshwane region regarding the role of social workers in promoting environmental justice. The population included participants who had the characteristics in which the researcher was interested (Strydom & Venter, 2002:198), namely social workers employed for more than three years by the Gauteng Department of Social Development, Tshwane region at the five service points, i.e. Temba, Pretoria, Bronkhorstspuit/Ekangala, Garankuwa and Mamelodi.

Data was collected by means of semi-structured one-on-one interviews guided by an interview schedule (Greeff, 2011:342). The interview schedule contained a set of predetermined questions that guided the researcher to the information required. The interviews were recorded using a recording device with the permission of the participants. The researcher used the data analysis spiral as represented by Creswell (in Schurink, Fouché and De Vos, 2011:403) in which data was prepared, organised, reduced and presented in themes and sub-themes that developed from

the data. The researcher followed steps to ensure that the information obtained was credible and dependable by making sure that she correctly understood the participants with regard to the information that they were sharing.

The researcher also promoted the integrity of the study by applying ethical considerations, namely avoidance of harm, voluntary participation and informed consent, avoidance of violation of privacy and confidence, as well as the publication of findings, to ensure that the participants involved would not be harmed as a result of the research activity (Creswell, 2009:87).

1.6. CHAPTER OUTLINE

This research report consists of the following four chapters:

Chapter 1: General introduction to the research study

This chapter outlines the context of the study by means of an introduction, theoretical framework, problem statement and the goal and objectives.

Chapter 2: Environmental justice as a conceptual framework of sustainable development

This chapter focuses on a literature review concerning the key focus areas of the study that includes potential threats to attaining environmental justice, social vulnerability, and the role of social workers in addressing issues of environmental justice.

Chapter 3: Research methods, empirical findings and interpretation

This chapter outlines the research methods that guided the study, followed by the research findings and an interpretation thereof. In addition, a short overview of the research methods, ethical aspects and the study's limitations will be described.

Chapter 4: Key findings, conclusions and recommendations

The chapter concludes the research report and outlines how the goal and objectives of the study were achieved. Furthermore, it discusses the key findings of the study from which conclusions are made. Finally, recommendations are made on effective social work strategies that may assist social workers in promoting environmental justice.

CHAPTER 2

ENVIRONMENTAL JUSTICE AS A CONCEPTUAL FRAMEWORK OF SUSTAINABLE DEVELOPMENT IN SOCIAL WORK

2.1. INTRODUCTION

Advocates for environmental justice argue that low-income communities have been disproportionately affected by environmental injustices for decades and that they tend to be most directly reliant on natural resources, which therefore places them first in line to suffer when these resources are degraded (US Commission on Civil Rights, 2016:6). Furthermore, industrial facilities are often situated in or near low-income communities, resulting in poor people most often being exposed to environmental hazards and environment-related conflict, although they are least capable of coping when these occur (Oliveira-Finger & Zorzi, 2013:225). In this chapter, the researcher will describe the different potential threats to attaining environmental justice that societies should be aware of, which include environmental pollution, urbanisation, overpopulation and climate change. As indicated above, it is sadly those who do least to cause environmental damage who are first in line to experience the severe impacts caused by environmental issues (Goldenberg, 2014), causing them to be more socially vulnerable. It is for this crucial reason that the researcher will also provide an overview of the social vulnerability factor caused by environmental issues in this chapter. The role of social workers in addressing the identified environmental issues will be reviewed as well. Lastly, the social development approach as the theoretical approach guiding this research will be explored.

2.2. POTENTIAL THREATS TO ATTAINING ENVIRONMENTAL JUSTICE

Exponential population growth, natural disasters, pollution, food uncertainty, shortage of access to clean water, toxic waste dumping and the reduction of the earth's natural resources pose intense threats to the international community and the attainment of environmental justice (Miller & Hayward, 2014:281). Indeed, humans' pollution of air, land and water and the depletion of non-renewable resources have created a crisis for all living beings (Favor & Muñoz, 2013:346). Nesmith and Smyth (2015:486) assert that it is not only the vulnerable or marginalised people in poor countries who are exposed to environmental injustice; this pattern is paralleled in

wealthy countries as well, but sadly those that are underprivileged endure an unequal share of the burden of environmental degradation. Seventy-one researchers from 29 countries concluded that environmental issues such as climate change and pollution are, without reservation, creating effects across the world that, if left untreated, by 2030 will yield shocking and irretrievable effects across the globe (IPCC, 2014 in Cumby, 2016:05).

According to Marais, Bexell and Bhadra (2016:101), enormous and unfavourable variations in the earth's ecosystems will be expected to meet fast increasing, unmaintainable and irresponsible human demands for food, clean water, timber, fibre, minerals and fuel. As a result of all these demands, species have tarnished and devastated parts of the life-support system essential for their health, well-being and survival (Marais, Bexell & Bhadra, 2016:101). For individuals, families and communities, these changes threaten basic needs and livelihoods, emotional and physical health, financial security and overall well-being (Mason, 2015:02). Addressing issues of environmental justice is turning into a bigger reality, not only because it has widespread effects on the physical environment, but also because it affects people's lives directly by threatening the economy, culture and institutions within societies (Drolet & Sampson, 2017:62).

The above-mentioned effects comprise depleted food production, significant or irrevocable damage to natural resources, the destruction of entire habitats, shifting of people and wildlife, loss of marine and coastal ecosystems, the collapse of infrastructure and critical services, loss of biodiversity, and increased illness and mortality rates (Cumby, 2016:05). In recent times, some parts of South Africa have been hit by massive storms that led to flooding, leaving the communities with damaged infrastructure and some individuals even sadly losing their lives in the process. According to the researcher this is a clear indication that concern about the earth's continued sustainability for people can no longer be ignored. Furthermore, environmental issues pose a threat to social well-being by threatening survival needs, individual safety, access to opportunities to prosper and develop, and receiving the basic human rights stipulated by the Universal Declaration of Human Rights (Achstatter, 2014:17). Opportunities for social development and potential for people to live fully capable, productive lives are compromised by the environmental issues outlined.

According to Loubser (2013:02), since the state of the environment affects every individual both directly and indirectly, societies should be made aware of environmental issues to sensitise them to aspects that may affect them directly. For the purpose of this study, only environmental pollution, urbanisation, overpopulation and climate change will be discussed as environmental issues that have become a matter of great concern because of the growing fragility of the earth's life support systems.

2.2.1. Environmental pollution

Construction, transportation and manufacturing as developmental activities not only reduce natural resources, but also yield enormous quantities of waste, resulting in air, water and soil pollution, global warming and acid rain (Environmental Pollution, n.d:165). Environmental pollution in all its various forms is a universal challenge and its potential to affect the health of human populations is high (Khan & Ghouri, 2011:276). Pollution may be defined as any existence of a chemical in the environment or any other agent such as sound or heat at a level that is detrimental to the health, subsistence or activities of humans or other organisms (Miller & Spoolman, 2012:13). From this definition, the researcher strongly believes that underprivileged societies tend to be most exposed to environmental issues, because they have less means to assist them to cope with disaster. Although there are many different types of environmental pollution, the main types of pollution include water pollution, air pollution, land pollution and noise pollution. For the purposes of this study, only water, air, land and noise pollution will be discussed.

2.2.1.1 Water pollution

Owa (2014:01) asserts that human activities, including industrialisation and agricultural practices, contributed enormously to the dilapidation and pollution of the environment, which has an unpleasant effect on the water bodies (rivers and ocean) that are essential for life. The effect on these water bodies causes what is identified as water pollution. Water pollution may therefore be defined as any physical, organic or chemical contamination in water quality that unfavourably affects living organisms or causes water to become inappropriate for certain uses (Kumar, 2013:193). According to Ashraf, Mahmood and Maah (2010:293), polluted water comprises industrially discharged emissions, sewage water and rain water. From the above-

mentioned information, it can clearly be deduced that polluted water has a number of disadvantages.

During 2015, there were still 844 million people around the world who lacked a basic drinking water service and 159 million who drank untreated water that might contain toxins from surface water sources, such as streams or lakes (World Health Organisation, 2017). When pollutants exist in the water, they spread from the water that animals drink to humans when the animals' meat is consumed (Ashraf et al., 2010:293). Thereafter, the pollutants enter the food chain, which in turn causes infectious diseases such as typhoid and cholera, which can be contracted by consuming contaminated water (Ashraf et al., 2010:293). Owa (2014:02) also mentions that water pollution becomes worse as a consequence of overcrowding in urban areas and since it has direct consequences for human life, an effective teaching approach in the formal education sector is crucial for improved understanding in order to develop a positive attitude to water usage.

In general, South Africa has a restricted amount of water and the quality of this water is being threatened by pollution and the destruction of rivers (The water wise education team, 2012). Water pollution in South Africa is a growing challenge, which can be attributed to municipal pollution, industrial effluent and acid mine drainage (UNEPFI Chief Liquidity Series, 2010:43). The influx of people to cities such as Tshwane places extra demands on the water supply owing to a great increase in the volume of waste going into wastewater treatment plants. The current infrastructure cannot accommodate all these demands (Kilian, 2017). To make matters worse, the city of Tshwane is situated upstream of the water system drainage in the catchment area and waste disposal is dispensed directly into the raw water reservoirs, posing a serious danger to both human life and the ecosystem (Musingafi & Tom, 2014:72).

2.2.1.2 Air pollution

Air pollution is the manifestation of chemicals in the atmosphere in concentrations sufficient to harm organisms, ecosystems or human-made materials, or to change the climate (Miller & Spoolman, 2012:458). One could suggest that air pollution began when people started burning fuels, so in other words, all man-made (anthropogenic) emissions into the air can be referred to as air pollution because of their nature to modify the chemical composition of the natural atmosphere (Daly &

Zannetti, 2007:02). According to the World Health Organisation (2014), an estimated 7 million deaths annually or one in eight premature deaths every year can be attributed to air pollution, which then makes it the world's most prevalent environmental health risk, and among the leading global health risks compared with "traditional" health risks such as smoking, high cholesterol, high blood sugar and obesity. Air pollutants emanate from various natural and human sources.

Miller and Spoolman (2012:458) assert that natural sources of air pollution comprise wind-blown dust, pollutants from wildfires and volcanic eruptions, and volatile organic chemicals released by some plants. Human sources of air pollution occur in industrialised and urban areas where they are generated mostly by burning of fossil fuels in power plants, domestic fuel burning, industrial facilities, aircraft and motor vehicle emissions (Miller & Spoolman, 2012:458). This can result in a variety of environmental effects, among others acid rain that can damage forests and crops, or acidify soil and water bodies (Department of Environmental Affairs, 2013:183). In addition, air pollution is a health risk and a drag on development (Kings, 2016).

Societies having no choice over the air that they inhale in their homes, outdoors and in workplaces makes air pollution one of the leading threats to human health because people frequently breathe air that is not as clean as desired (Department of Environmental Affairs, 2013:183). Respiratory sicknesses such as asthma, increased vulnerability to acute respiratory infections, cancer, heart and lung diseases are all instigated by toxic chemicals entering the body through inhalation (Department of Environmental Affairs, 2013:183). Kings (2016) asserts that by causing illness and premature death, air pollution decreases the quality of life as well as productive labour.

Hallowes (2014:08) argues that South Africa is the biggest source of emissions in Africa; it is ranked twelfth in the world, with old people and the poorest excessively affected mainly because they are more likely to reside and work in polluted environments and less able to escape exposure or to protect themselves. Exposure to air pollution can lead to diverse impacts on human health, which may range from nausea and difficulty in breathing or skin irritation to cancer (Kampa & Castanas, 2008:36). Mabahwi, Leh and Omar (2014:225) argue that hundreds of deaths, such as those caused by heart attacks and lung cancer, have been directly related to air

pollution in cities. The harmful impact of air pollution is not restricted to the environment. Air pollution decreases the economic value of crops and leads to expensive cleaning of cultural heritage items (Impacts of air pollution on human health, ecosystems and cultural heritage, n.d). In addition, it decreases plant biodiversity and affects other ecosystem services, such as clean water, leisure activities and carbon storage (Impacts of air pollution on human health, ecosystems and cultural heritage, n.d).

From the above-mentioned information, it can be concluded that air pollution is a serious challenge that has an impact on basic human welfare, damages natural and physical capital and constrains economic growth (Kings, 2016). Moreover, the researcher strongly believes that air pollution is an infringement on the right to an environment that is not harmful to people's health or wellbeing that is stated in South Africa's constitution. In addition to air pollution, land pollution appears to be a global environmental issue that is often associated with industrialisation.

2.2.1.3 Land pollution

Land pollution is one of the main environmental issues the world is facing today (Khan & Ghouri, 2011:279). Land pollution, which is also referred to as soil pollution, may be defined as the degradation of land surfaces caused by human activities (Environment Protection Authority, 2012:01). Woodford (2017:02) asserts that land pollution includes garbage and industrial waste and involves issues from mining and other forms of industry, agricultural pesticides and fertilizers and unwanted consequences of urbanisation to the systematic destruction of soil through over-intensive agriculture. Land pollution is one of the most serious environmental issues, which if left untreated or improperly treated, leads to the pollution of rivers and environmental degradation, causing ill health and loss of crop productivity (Gangadhar, 2014:78). The researcher believes that this has dire consequences for people depending on crops for survival, because normally crops cannot grow and flourish in polluted soil, which means that the rate of poverty then escalates.

In addition, researchers argue that land pollution is responsible for health effects that include a higher incidence of migraines for people residing near polluted land, fatigue and skin disorders and even miscarriages (European Commission, 2013:04). Mishra, Mohammad and Roychoudhury (2016:05) assert that approximately 90% of all land

pollution is caused by industrial waste products that contaminate the soil with harmful chemicals, which in turn affects plant and animal species as well as water supplies and drinking water. Furthermore, because of the modern lifestyle and eating habits, urban waste is becoming extremely dangerous to societies (Kumar, Smith, Fowler, Velis, Kumar, Arya, Kumar, Cheeseman, 2017:02). Woodford (2017:07) emphasises that what makes land pollution such a challenge is that land is static; therefore, land pollution remains exactly where it is unless somebody cleans it up. Land that is polluted remains polluted; land that is urbanised almost invariably remains urbanised and it can be observed that plastics take a number of years to vanish, while radiation can pollute land ten times longer (Woodford, 2017:07).

Land pollution is most severe and growing in communal croplands, grazing lands and settlements in South Africa (Department of Environmental Affairs, 2010). South Africa's dependence on native agricultural production for food provision, in combination with the disastrous effects of droughts on agriculture, has led analysts to conclude that polluted, less productive soils increasingly weaken the country's ability to feed its rising population and to sustain livelihoods, predominantly among the rural poor (Department of Environmental Affairs, state of the environment, 2010). The researcher strongly believes that this clearly suggests that land pollution, along with all the different types of pollution discussed in this research, is having noticeable effects across South Africa, especially in poor communities. These communities are disproportionately victimised by environmental issues and social work is a profession that can aid in this dilemma (Cureton, 2012:01). In addition to land, air and water pollution, noise pollution is a prominent feature of the environment.

2.2.1.4 Noise pollution

Sound that is unsolicited or interrupts one's quality of life is referred to as noise, therefore when there is a significant amount of noise in the environment beyond a certain limit, it is defined as noise pollution (Dasarathy, 2015:01). Noise pollution originates from outside sources, such as road traffic, jet planes, garbage trucks, construction equipment, manufacturing processes, lawn mowers and leaf blowers, as well as indoor sources, such as boom boxes, heating and air conditioning units, and metal chairs scraping on floors (Eco-Healthy Child Care, 2010:07). Noise is regarded as a pollutant because it could lead to various adverse effects of pollution,

such as damaging human health and well-being, and could harmfully affect ecosystems and ecological services (González, 2014:348).

Savale (2014:1030) asserts that noise pollution has severe implications for health, as serious as air or water pollution, that include changing man's physiological state by intensifying pulse and respiratory rates and impairing hearing either permanently or temporarily, with masses of industrial workers vulnerable to hearing damage. Other impacts of noise pollution, which are not classified as diseases but have to be accounted for, are annoyance and sleep disturbance (Pignier, 2015:07). In addition, life forms such as dogs, pigeons, aquatic birds and other mammals are affected; the predator-prey relationship in the animal kingdom is primarily based on hearing a call, thus man-made noise causes animals (predators) to go hungry or creates an unsafe environment for prey species subject to predation (Sivaramanan, 2015:04).

One of the greatest concerns in developing countries such as South Africa is that noise pollution and its negative health effects on communities has received little attention from researchers (Sieber, Ragetli, Brink, Toyib, Baatjies, Saucy, Probst-Hensch, Dalvie & Rössli, 2017:01). However, noise pollution can be regarded as a disruption to the human environment and is intensifying at a high rate, which will cause it to develop into a serious threat to the quality of human life (Dasarathy, 2015:2). Noise pollution in all localities, especially urban areas such as Tshwane, has been growing rapidly throughout the preceding few decades (Dasarathy, 2015:02). A stage has now been reached where an inclusive pro-active approach to noise management and control must be instigated. The initial step in this process has been to develop a noise management policy, with the aim of setting out the basic framework to guide subsequent legislation in the form of by-laws and to launch enabling procedures (City of Tshwane Metropolitan Municipality, 2004:1). González (2014:350) argues that decreasing environmental noise levels will lead to a better and supportive society. The researcher believes that it is for this reason that social workers can play a significant role in creating awareness about noise pollution in communities.

2.2.2. Urbanisation

Urbanisation may be defined as the growing share of people residing in urban areas, which is predominantly the outcome of migration (Tacoli, McGrandhan & Satterthwaite, 2014:05). South Africa is experiencing rapid urbanisation due to rural-urban migration and international migration, with approximately 62% of the country urbanised (Urban Settlement Issues, 2014:01). Under the apartheid regime, black South Africans were strictly regulated in their choice of location, with the majority being forced to reside in homelands. They were only free to migrate after the end of apartheid (Bakker, Parsons & Rauch, 2016:01). Post-apartheid, Turok (2012:02) argues that South Africa has the biggest and most industrialised economy in Africa, with nearly two-thirds (62%) of its entire population of 55 million people residing in urban areas, which makes it one of the most urbanised countries in sub-Saharan Africa.

According to Edmonds (2013:02), urbanisation has resulted in increased separation between the white and black population of South Africa, with the majority of the black population living on the outskirts of cities lacking critical living resources such as clean water, electricity and access to proper health facilities. In addition, Loubser (2013:18) argues that housing is inadequate, with many people settling near industries where pollution is hazardous to their health and crime at unacceptable levels. It is not only people who are losing the battle against survival in cities; the environment is even worse off (Loubser, 2013:18).

McGrandhan and Satterthwaite (2014:20) assert that urbanisation has continuously raised environmental concerns and that the links between urbanisation and environmental risks were undeniably initially more apparent in cities, where resource restrictions were more localised and environmental health issues loomed large. Uttara, Bhuvandas and Aggarwal (2012:1644) argue that it can be deduced from this that some causes of destruction to the environment as a result of urbanisation lie in legislation and the regulating agencies of the country. The government's failure to regulate legislation has given rise to the growth of informal settlements that create unhealthy living and working environments in today's cities (Uttara, Bhuvandas & Aggarwal, 2012:1644). Furthermore, Baus (2017:28) states that the impact of urbanisation is devastating for biodiversity. The growth of cities forces animals out of

their habitats, which are becoming urbanised, and in the process of mass migration to cities and lack of family planning programmes, massive extinction of species takes place (Baus, 2017:28).

The researcher strongly believes that owing to the high rate of urbanisation, there is a need for education in the form of awareness campaigns about urbanisation and its impact on communities in order to prevent and reduce its harmful effects on the environment and communities. Loubser (2012:19) also suggests that better pro-active planning by the government would go a long way in alleviating the challenges, many of which are related to adequate shelter and services for new migrants to the urban centres. Pro-active planning can also result in urbanisation being viewed as a positive occurrence and a pre-condition for refining access to facilities, contributing to economic and social balance among ethnic groups seeking to reserve their distinctiveness in cities and the evasion of extreme customs of exclusion and urban fragmentation (Muleya, 2016).

It is very significant to note that environmental factors such as natural disasters and declining availability or quality of land for farming can be identified as one of the leading causes of urbanisation, leading to high levels of population growth in most cities (Population Action International, 2011:02). This therefore highlights that there is a correlation between urbanisation and high levels of population growth. It is for this important reason that overpopulation and its impact on the environment will be explored further in the next discussion.

2.2.3. Overpopulation

Of all of the environmental challenges facing the world currently, overpopulation is one that occasionally slips under the radar (Renewable Resources Coalition, 2016). Environmental issues such as pollution, climate change and global warming all seem to take precedence, but in fact, overpopulation is one of the key contributors to numerous other environmental issues (Renewable Resources Coalition, 2016). Overpopulation may be defined as an undesirable increase in the number of people in an area, resulting in a shortage of resources such as food, employment opportunities, technology, health facilities, electricity and clean water to maintain a reasonable standard of living in that area (Eyo & Ogo, 2013:264). The earth's population is currently estimated to be seven billion and it is estimated that by 2050 it

will reach nine billion, that is, essentially two billion more individuals in under four decades (Hoffman, 2012:01), which is too big a change to really comprehend.

Hanauer (2013:03) asserts that in the most susceptible regions of the world, localised destruction is occurring primarily because of overpopulation, because per capita consumption is at subsistence levels. Overpopulation poses challenges to the government's ability to distribute resources to the different sections of the country, and to plan and implement developmental programmes for the people (Eyo & Ogo, 2013:261). These challenges include health issues, unemployment, poverty, unequal education and lawlessness (Baus, 2017:27). Hanauer (2013:03) further argues that population growth has many other social impacts, which result in the disturbance of peace and privacy, including the need for occasional solitude, which is significant to people in a civilised society.

Overpopulation challenges are not limited to society alone, but also destroys the environment, which in turn affects populations. According to Baker (2017), virtually all human activities have a negative influence on the environment in one form or the other and as the human population grows, the destructive effects on the environment multiply. Overpopulation affects the environment by increasing pressure on resources such as water, food and energy (Baus, 2017:07). Therefore, it is of paramount importance for people to understand that planet earth is a bounded system and no help from outside will come to alleviate the scarcity of natural resources that humans are soon to experience (Baus, 2017:07). The effect of overpopulation on the world's wildlife is also a key challenge, mainly because as demand for land increases; so too does the devastation of natural habitats, such as forests (Overpopulation: the causes, effects and potential solutions, 2016).

From 1994 to 2007, the South African population grew from 40,4 million to 48,5 million and it is predicted to increase to 51,4 million by 2021 (Kruys, 2008:50). Overall, these population changes have affected South African metros by placing pressure on all social, economic and developmental fronts, posing challenges to metros to meet the changing needs of their populations adequately (Goodrick, 2013:01). Like several other nations in the world, South Africa faces a rising challenge in providing all citizens with access to appropriate housing (Marutlulle, 2017:132). In addition, South Africa's water resources are limited, as is arable land

(Kruys, 2008:50), which indicates that overpopulation has negative implications for the availability of water, as well as food production. In big metros such as Tshwane, overpopulation can be attributed to a rapid increase in the natural population and migration to urban areas (Bhatta, 2010:18). Natural population growth results from the additional numbers of births over deaths, while migration is defined as the long-term relocation of an individual, household or group to a new location outside the community of origin (Bhatta, 2010:18). From the above-mentioned information, it is clear that overpopulation threatens any form of sustainable development. Therefore, the skills and roles of the social worker in working with communities are significant in applying effective interventions geared towards sustainable development (Rinkel & Powers, 2017:20).

2.2.4. Climate change

Climate change is having numerous evident effects across the world (Cumby, 2016:04). Although climate change has an impact on the world at large, its impacts are unfortunately not evenly borne across countries, communities and households. Individuals who are economically, socially, institutionally, politically, culturally or otherwise marginalised are particularly exposed to climate change (Goldberg, 2014). Climate change may be referred to as variation in the state of the climate that can be recognised (e.g. using statistical tests) by changes in the mean and/or the variability of its properties, and that continues for a prolonged period, usually decades or longer (United Nations, 2011).

The influences of climate change, and the vulnerability of poor communities to climate change, vary greatly, but generally climate change is superimposed on existing vulnerabilities, as quoted by Hetherington and Boddy (in Gray, 2013:50). Hetherington and Boddy (in Gray, 2013:50) mention that almost two decades of research on vulnerability to climate change demonstrates that although all societies will be affected, it is certainly marginalised and disadvantaged societies who will undergo the extreme impacts of changing environmental conditions. This includes among others “women, people living in poverty and rural areas, indigenous peoples, and older people”, all of whom experience varying inequalities in mobility and access to capital, nutrition, water and safe places in which to reside (Hetherington & Boddy,

2013:50). So in essence, climate change is not only an environmental issue, but also an economic, social and political crisis (Hetherington & Boddy, 2013:50).

Given the main effects that climate change will have on the environment and the manner in which these variations will affect societies, climate change research in South Africa is no longer seen exclusively as an environmental challenge, but also as a developmental challenge (Scholes, Scholes & Lucas, 2015:06). Because of the socio-economic and environmental context, South Africa is enormously susceptible and exposed to the impacts of climate change. As noted in the rest of the world's most struggling communities, climate variability, comprising the increased frequency and intensity of extreme weather events, will also excessively affect disadvantaged citizens in South Africa (Department of Environmental Affairs, 2012). According to the National Climate Response White Paper (Department of Environmental Affairs, 2012), South Africa is already a water-stressed country and faces future drying trends and weather variability, with sequences of droughts and sudden extreme rain.

The major impacts of climate change include drought, floods and extreme heat. Drought is said to be the natural part of climate that upsets approximately every region on earth and ranks first among all natural hazards in terms of the number of people directly affected (Wilhite & Knutson, 2008:141). In South Africa, droughts are defined as a season's rainfall of 70% less than normal, and are notably progressive or 'slow onset' disasters (Department of Rural Development and Land Reform, 2013:23). They are a temporary feature, and are typically more widespread than localised (Department of Rural Development and Land Reform, 2013:23). In 2015, South Africa was exposed to the worst drought in more than a century and the dry weather persisted during the subsequent year, increasing food prices and hurting small-scale and commercial farmers (Crowley, 2017). In addition, Kings (2017) mentions that the present drought has uncovered the fragility of local cities that depend on dams to supply them with water. Any rainwater-collecting capacity that used to exist on the land where cities now exist is gone; wetlands have been replaced by slabs of cement and tar roads (Kings, 2017).

Floods, on the other hand, have been reported to produce huge amounts of material destruction and casualties worldwide, affecting all types of physical and immaterial possessions, including private residences and agricultural, commercial and industrial

stocks and facilities, as well as natural resources and the environment (Kundzewicz, Kanae, Seneviratne, Handmer, Nicholls, Peduzzi, Mechler, Bouwer, Arnell, Mach, Muir-Wood, Brakenridge, Kron, Benito, Honda, Takahashi & Sherstyukov, 2013:03). During 2016, alarms were raised about the risk of flooding across vast regions of South Africa amid heavy rain (Hosken & Smillie, 2016).

On 10 March 2016 the Gauteng province experienced extensive flooding, with two vehicles being swept off low-lying bridges in Pretoria and the destruction of shops in Centurion (Hosken & Smillie, 2016). In addition, Gauteng emergency services' officers were placed on high alert amid concerns that Ekurhuleni's Civic Lake and Middle Dam would overflow (Hosken & Smillie, 2016). The resulting floods caused unprecedented disruption of services, displacement of people, loss of livelihoods and even worse, loss of life. During 2011, it was reported that over 20 000 people had been affected by floods and an estimated 40 people had died. A national state of disaster was declared in 28 district municipalities in seven provinces, with more affected areas being reported on continually (International Federation's Disaster Relief Emergency Fund, 2011).

Specialists project that as the climate changes, extreme heat events will also become more common, longer lasting and more severe, which means that by the end of this century, extremely high temperatures that currently occur once every 20 years could happen as often as every two to four years (Centers for Disease Control and Prevention, 2010:02). Poor communities that consist of vulnerable groups are most likely to be the first to feel the above-mentioned impacts of environmental issues and will most likely be most severely affected. It is for this important reason that the social vulnerability factor will be examined in the next discussion.

2.3. SOCIAL VULNERABILITY CAUSED BY ENVIRONMENTAL ISSUES

In a developing nation such as South Africa, people who are economically, culturally, institutionally, socially, politically or otherwise marginalised are particularly vulnerable to environmental issues because of having fewer resources to support them to cope with disaster (Goldberg, 2013). They earn low wages, have limited choices regarding location and employment, are less able to afford food or to save and accrue assets, and are frequently powerless. Both global and local consequences of environmental damage have an impact upon poor people (Drimmie & van Zyl, 2014:277). Feldstein

(2013) asserts that affluent societies are said to affect the environment far more negatively than poor societies. Individuals who reside in well-developed areas such as Europe, Canada and the US, or rapidly developing areas such as China and India, live in high consumer societies with lifestyles leading to unnecessary depletion of resources. It can be noted that most poor individuals live in such desperate conditions that they are obliged to hunt endangered species, cut down forests, reduce fish stocks and erode soils (Morris-Jung, 2010). However, their ecological footprints are minor compared to the multinational companies and global industries that seek to satisfy the consumption demands of wealthier countries and populations (Morris-Jung, 2010).

Climate-related shocks and stresses from natural disasters already prevent households from escaping poverty and poor societies are disproportionately vulnerable to these shocks, because they are more exposed and lose more when affected (Hallengate, Bangalore, Bonzanigo, Fay, Kane, Narloch, Rozenberg, Treguer & Vogt-Shild, 2016:369). Keshavarz, Karami and Vanclay (2013:120) further assert that vulnerable households are further affected by social and economic impacts that include reduced household income, deficiency of substitute income sources, increased workload, conflict of water access and water use, food insecurity and malnutrition, health effects and reduced access to health services, reduced access to education, unequal drought relief and rural to urban migration, which all emanate from environmental issues. The psychological and emotional impacts of environmental issues include depression, frustration and alienation; changed family plans such as delaying marriage; and family and community disharmony and disintegration (Keshavarz et al., 2013:120). The researcher believes that increased exposure to these environmental issues, leading to the above-mentioned impacts, further decreases people's ability of to cope with this exposure, making them even more vulnerable.

There are indications of an increase in gender-based violence and ongoing safety issues for women and girls in post-disaster spaces (Alston, 2015:358). Stain, Kelly, Carr, Lewin, Fitzgerald and Fragar (2011:1594) further mention that women affected by environmental issues experience higher stress levels than their male counterparts. This is because women usually give priority to their children and other members of the family when there is limited food during periods of devastation

caused by the impact of environmental issues (Nguyen, Prabhakar & Shaw, 2011: 256). Furthermore, women worldwide have more limited access than men to land, decision-making, technology and education, even though women are the ones who contribute significantly to the survival of agriculture and farming families (Hetherington & Boddy, 2013:51). Women's symptoms are more strongly related to the social demands placed upon them rather than the traumatic experience itself (Stain et al., 2011:1594). In addition to women, children are said to be particularly vulnerable to the health effects of environmental issues, including those that are climate-related, owing to their physical, physiological and cognitive immaturity (Jankowska, Engstrom & Weeks, 2012:224).

Older people are also consistently recognised as a population that is especially vulnerable to environmental issues because of a number of physiological, psychological, and socioeconomic factors that contribute to this vulnerability (Gamble, Hurley, Schultz, Jaglom, Krishnan & Harris, 2013:15). These factors include the generally higher frequency of certain diseases, medical conditions and functional limitations; their higher sensitivity to extreme heat; their increased social isolation and their financial status (Gamble et al., 2013:15). Scher (2017:02) argues that in addition to children, women, and older people, people with disabilities are arguably the most vulnerable group to the impact of environmental issues. Walker (2013:02) asserts that people with disabilities are more likely than others to be left behind or abandoned during evacuation procedures, have support networks disrupted, experience discrimination and gaps in access to services and resources (Walker, 2013:2).

According to the 2nd Draft Long-Term Adaptation Scenarios Flagship Research Programme for South Africa (Department of Environmental Affairs, 2013:13), environmental issues are likely to heighten inequality, undermining social justice and cohesion, if South Africa does not implement effective adaptation approaches. South Africa urgently has to strengthen the resilience of its society and economy to environmental issues and develop and implement policies, measures, mechanisms and infrastructure that protect the most vulnerable (Department of Environmental Affairs, 2013:13). Therefore, the mission ahead is to intensify the adaptive capacity of affected poor communities. It is for this crucial reason that the researcher will focus on the role that social workers can play in addressing environmental issues.

2.4. THE ROLE OF SOCIAL WORKERS IN ADDRESSING ENVIRONMENTAL ISSUES

Social workers across the world are faced with numerous contemporary challenges, which include difficulties of upholding human rights, social justice and active citizenship and those of encouraging environmental justice and caring for planet earth in and through social work practice (Dominelli, 2013:431). Nesmith and Symth (2015:485) argue that as a profession committed to social justice, social work is missing a critical opportunity to be actively engaged in fighting for environmental justice. It is important to note that fighting for environmental justice is not new to social work, because literature indicates that in the late 19th century, the pioneer social worker Jane Addams advocated environmental reform for the urban poor heavily (Nesmith & Smyth, 2015:485). Despite the early identification and involvement of social workers in fighting against environmental issues, the researcher strongly believes that the lack of active engagement in fighting for environmental justice by social workers, as mentioned by Nesmith and Smyth, poses serious threats to all societies.

The literature discusses that environmental issues are directly related to poverty and adversely affect those very societies that social workers seek to help, especially the poor (Gray & Coates, 2015:502). The roles and skills of the social worker in working with communities are key to implementing effective interventions geared toward both environmental and social sustainability (Rinkel & Powers, 2017:22). It is for this crucial reason that social workers need to recognise and respond more actively to promoting environmental justice in societies, since they are in the frontline to alleviate challenges that societies face. Lombard (2015:487) asserts that the Global Agenda commits social workers to aligning their activities and programmes with development initiatives that integrate the environment with human dimensions in order to promote environmental justice and sustainability. Social workers can play a principal role through understanding of the interrelationship between people and the environment, the integration of environmental issues into their social work practice, and the call for the government to include environmental safeguards in policy decisions and enforce current environmental regulations (Shaw, 2011:25).

Based on current conditions such as environmental pollution, urbanisation, overpopulation, climate change and the principles embodied in the NASW Code of Ethics, social workers have a moral and ethical responsibility to counter the negative effects of environmental issues (Achstatter, 2014:05). According to Dominelli (2012:89), social workers have a role to play in facilitating understanding of environmental issues, convincing people of the importance of focusing on environmentally embedded, eco-friendly forms of socio-economic development and working with local people to develop sustainable solutions to social problems, as well as encouraging the sharing of green energy technologies. Cumby (2016:30) concurs by asserting that social workers have a role to play in dealing with environmental issues, since taking action on these issues is part of the social work mandate and since social workers bring a skill set to the table that can help to mitigate these issues.

Dominelli (2012:89) argues that some of the reasons why working towards attaining environmental justice is of paramount importance for social workers are affirming human rights and social justice and enhancing people's well-being, affirming interdependencies between people in their physical, social, political, economic and cultural environments as part of one whole, as well as caring for others and being cared for by others, including the duty to care for planet earth. Kemp and Palinkas (2015:15) argue that social workers also have a significant role to play in growing public awareness of the human impact of environmental change. This role embraces engaging with individuals, groups and communities in learning about and crafting responses to the local impact of global changes at the micro, mezzo and macro levels to overcome apathy to, denial of, or misinformation about global climate change (Kemp & Palinkas, 2015:15). The aim of this is to ensure the application of mitigation and adaptation policies, programmes and practices, while fostering hope and optimism that investments in mitigation, adaptation, and transformation can and will have meaningful results (Kemp & Palinkas, 2015:15).

One of the most important roles of social workers in environmental issues involves preparing societies for change and participating in change (Peeters, 2012:13). In preparing for change, social workers have to create situations that both help overcome difficulties and work on the conditions for a sustainable future, which implies building social capital and resilience (Peeters, 2012:13). This simply implies

that social workers can create contexts that bring people together, build networks, make more structural answers possible, and develop capabilities and skills that empower people to get better control over their lives (Peeters, 2012:14). In addition, Alston (2015:361) asserts that social workers have a role to play in working in multi-disciplinary teams of academics evaluating national frameworks and building multi-disciplinary conceptual clarity. It is in these working groups that social workers can bring forward ideas of social and environmental justice and increase awareness of the range of social support needed if people are to adapt to climate change and environmental disasters (Alston, 2015:361).

Dominelli (2013:438) also mentions that various other roles that social workers can play include those of a negotiator or broker between communities and different levels of government, a mediator between conflicting interests and groups, including gendered relations, and a consultant to government and other agencies. Furthermore, social workers can advocate people's rights and entitlements and educate communities by giving out information about how to access relief aid and avoid diseases that can erupt following a disaster (Dominelli, 2013:438). In addition to the above-mentioned roles, social workers can play the role of a trainer, particularly on responding effectively in mobilising local resources when disaster strikes, a cultural interpreter, an interdisciplinary translator and lastly a therapist, helping people deal with the emotional consequences of disaster, as well as a protector of the ecosystem/physical environment (Dominelli, 2013:438).

In addition, Schmitz, Matyók, Sloan and James (2012:284) argue that social workers are not only direct practitioners but are also leaders, change agents, activists and community builders, which makes them well positioned to advance environmental justice because of their expertise in collaboration, networking, advocacy, community development and capacity building. As indicated previously, a review of the literature indicates that the social work profession has given this challenge little attention (Achstatter, 2014:02). The prevalence of current environmental issues indicates a call for social work and other professions to work co-operatively to better understand and respond to the many dimensions of environmental injustice (Coates & Gray, 2012:231).

The International Federation of Social Workers published a policy statement on globalisation and the environment in 2012, calling for social workers to recognise the impact of environmental degradation on people, and developing environmental responsibility and care in social work practice (IFSW, 2012). In addition, the 1st Draft of the Environmental Policy for South Africa (Department of Environmental Affairs and Tourism, 1996) emphasises that the development of environmental policy needs to be a collective effort, reflecting the inputs of the public and all interested and affected parties, which are mostly the vulnerable communities. The researcher believes that since the work of social workers entails empowering those that are vulnerable, they have a significant role to play in national efforts to achieve environmental justice, which will ultimately lead to the attainment of sustainable development.

2.5. THE SOCIAL DEVELOPMENT APPROACH

The social development approach will be the theoretical framework of the study and is consequently discussed in the context of this study.

The depletion of natural resources, adverse impact of environmental degradation, environmental pollution, natural disasters, toxic waste dumping, food insecurity and exponential population growth undermine the ability of communities to develop and grow (IASSW, ICSW & IFSW, 2016). Lombard, Kemp, Viljoen-Toet and Booyzen (2012:192) suggest that social workers can be important change agents by adding value in the form of transformational change that could empower marginalised groups and eventually the world at large through the social development approach. The social development approach provides an obvious choice to combat many of the socio-economic and environmental challenges confronting the majority of social work clients and communities (Green, 2008:175).

The social development approach is defined by Midgley (in Patel, 2015:29) as “a process of planned social change designed to promote the well-being of the population as a whole in conjunction with a dynamic process of economic development”. Patel (2015:30) argues that the social development approach is essentially a people-centred approach to development that stimulates citizen participation and reinforces the voice of the marginalised in decision-making and in building democratic and accountable institutions. She further indicates that human

well-being is about the development of people and that the achievement of human well-being is the goal of social development (Patel, 2015:30).

Lombard and Wairire (2010:98) assert that social development has shaped a way in which developmental social workers could make an impact on attaining the millennium development goals, which are now referred to as the sustainable development goals 2030. In approaching sustainable development, three critical aspects need to be considered, namely economic, environmental and social factors, which are known as the triple bottom line, as part of the equation for effective development (Drolet & Sampson, 2017:63). According to Erickson (2012) in Healy and Link (2011:184) an additional way to attain sustainability is to ensure that the need for economic development to enhance human well-being does not outweigh the risks to the physical environment.

Drolet and Sampson (2017:64) argue that it is imperative to consider adaptation to environmental issues with respect to social development, ensuring that building the capacities and assets of individuals and communities mirrors the nature of sustainability, as well as encouraging adaptation that is suitable for the environment. According to Miller, Hayward and Shaw (2012:270), by promoting sustainable development through the social development approach, social workers advocate ecological justice, recognising that social and ecological systems are interconnected and intrinsically linked to human rights, social justice and environmental justice. Sustainable development and social development offer a valuable direction forward, given their ability to bring together divergent groups with varied interests in the service of environmental protection and human rights (Dylan, 2013:74).

Since the central feature of social development is the argument that economic growth alone is not sufficient to provide for basic human needs, people also require effective social programmes to improve their lives substantially (Hawkins, 2010:68). Interventions must include the transformation of human and social capital. They can range from the protection of an individual community member to safeguarding the biopsychosocial, economic and environmental well-being of all residents (Hawkins, 2010).

These interventions must be tailored to restoring the well-being and safety of residents, rebuilding the community spirit and livelihoods of residents, and

developing plans to mitigate any other seen or unforeseen event (Rinkel and Powers, 2017:22). Because of the environmental challenges that were identified in this research, opportunities for social development and potential for people to live fully capable, productive lives are compromised (Mason, 2015:3). All people should have opportunities for social development, unconstrained by the impact of environmental change. The time to rigorously study and intervene in the compelling problems of human-induced environmental problems is now. Social work is well positioned to help lead and organise this effort (Mason, 2015:6).

To achieve sustainable development of the environment, mankind must give prime consideration to the carrying capacity of nature, make strenuous efforts to conserve and reuse natural resources, as well as minimise environmental pollution so that future generations will be able to enjoy the same and clean natural resources such as air, water, soil, biodiversity of nature and a favourable environment for survival. In addition, it is significant to ensure that environmental objectives enjoy the same degree of importance as social and economic objectives (Harris, 2015:1).

2.6. SUMMARY

The current state of the environment has an impact on all people, both directly and indirectly, which therefore means that societies should be made aware of environmental issues to sensitise them to aspects that may affect them directly. Although all societies are affected by environmental issues, poor people tend to be most vulnerable, mainly because they have fewer resources to help them cope with disaster. Pollution, overpopulation, urbanisation and climate change are all environmental issues that have become a matter of great concern owing to the growing fragility of the earth's life support systems. The role of social workers in addressing environmental issues was discussed, since taking action on these issues is part of the social work mandate. It was also noted that some of the reasons why working towards attaining environmental justice is of paramount importance for social workers are that they have to affirm human rights and social justice and enhance people's well-being. However, the reality that practical examples are widely dispersed in literature makes it difficult to grasp what existing environmentally oriented social work practice is like, not to mention how to apply an environmental approach in one's own work. The social development approach was also a very

important component of this chapter, as it seeks to promote the well-being of individuals through ensuring that environmental objectives enjoy the same degree of importance as social and economic objectives.

In chapter three, the focus will be on the outline of the research methodology that guided the study, followed by the research findings and an interpretation thereof.

CHAPTER 3

RESEARCH METHODOLOGY AND EMPIRICAL FINDINGS

3.1. INTRODUCTION

The focus of this chapter is on describing the research methodology used in the study and presenting the empirical findings of this study. The study was conducted to explore the role of social workers in promoting environmental justice at the Tshwane Metro. The researcher intended to answer the following research question:

“What is the role of social workers in promoting environmental justice at the Tshwane Metro?”

The research question was informed by the following sub-research questions:

- What is environmental justice in the conceptual framework of sustainable social development?
- What is the understanding of social workers of their role in promoting environmental justice?
- What are the services that social workers have rendered that could seek to promote environmental justice?
- What recommendations can be made on how social workers can contribute to promoting environmental justice?

This chapter will first present the research methodology applied in the study, which includes the research approach, type of research, research design, research methods, pilot study and the ethical considerations applicable to the study in the following section.

3.2. RESEARCH APPROACH

This researcher employed a qualitative approach in the study to explore the role of social workers in promoting environmental justice at the Tshwane Metro (Fouché & Delport, 2011b:64). The qualitative approach is a means of exploring and understanding the meaning individuals assign to a social problem (Creswell, 2009:04). The qualitative research approach allowed the researcher to identify issues from the perspective of the study’s participants and to understand the meanings and interpretations that they attribute to behaviour, events or objects

(Hennink, Hurter & Bailey, 2011:09). This approach enabled the researcher to utilise inductive data analysis to develop an own pattern and themes from the bottom up, by organising the data into increasingly more abstract themes (Creswell, 2009:175). For the purpose of this study, using this approach assisted the researcher in developing a deeper and fuller understanding of the views of the social workers regarding their role in promoting environmental justice (Babbie, 2011:286). Analysing the positions of participants, which in this study were the role of social workers and the behaviour associated with those positions, was highly appropriate in the qualitative research approach (Babbie, 2011:287).

The advantages of using the qualitative approach were that it followed an open, flexible and unstructured approach to enquiry, aimed at exploring diversity rather than quantifying, communicated findings in a descriptive and narrative rather than analytical manner and emphasised the description and narration of feelings, perceptions and experiences rather than their measurement (Kumar, 2014:14). This approach was, however, not without its limitations. There were some concerns when it came to the issues of validity and reliability.

3.3. TYPE OF RESEARCH

Applied research was used for the purpose of this research study mainly because it endeavours to solve problems when applied in practice, as well as to empower professionals to accomplish specific tasks (Fouché & De Vos, 2011a:95). The main challenge is that social workers do not seem to know that they have a role to play in promoting environmental justice. This type of research encourages more social work action in promoting environmental justice.

This study focused on the role of social workers in promoting environmental justice at the Tshwane Metro. Those experiences were taken note of in order to clearly identify social workers' roles in contributing to successful adaptation of people in communities despite facing environmental issues, in order to improve the lives of individuals in the Tshwane Metro.

3.4. RESEARCH DESIGN

The research design that was used in the study was a case study design. The research took the form of a case study where the researcher looked into the experiences of social workers who work in communities of Tshwane in a small group of individuals to obtain personal knowledge of their social worlds and to look for patterns in the research participants' lives, words or action in the context of the case as a whole (Fouché & Schurink, 2011:320). Through their personal knowledge, better understanding was obtained of the experiences of social workers and therefore a clearer identification of the role of social workers in promoting environmental justice in the Tshwane Metro. The advantage of case study design is that the research can be much more comprehensive than would be possible if one is studying a large sample, but the resultant shortcoming is that it is much more difficult and often impossible to generalise the findings (Kumar, 2014:155).

This research specifically used the instrumental case study design where the cases were chosen so that comparisons could be made between cases and concepts to allow for theories to be extended and validated (Mark, 1996, in Fouché & Schurink, 2011:322). This simply means that the researcher compared the different opinions and experiences of a number of social workers who provide services to communities in Tshwane with regard to their role in addressing issues of environmental justice so that the research question and sub-questions could be answered. This type of design is advantageous, as it provides a significant technique if the researcher desires in-depth understanding of mechanisms of change but is not in a position to study a large number of cases (Fouché & Schurink, 2011:322). The corresponding disadvantage is that it is much more challenging and often impossible to generalise findings (Kumar, 2014:155).

3.5. RESEARCH METHODOLOGY

In this section, the researcher will provide a detailed explanation of the study population and sampling method that were used in the study. In addition, the data collection and data analysis methods for the study will be discussed.

3.5.1. Study population and sampling

For the purpose of this study, non-probability sampling was used to draw a purposive sample. Purposive sampling is chosen to illustrate some features or processes that are of interest for a particular study (Strydom & Delpont, 2011:392) and in this study it was to identify the experiences of social workers working in the five selected service points of the Tshwane region regarding the role of social workers in promoting environmental justice. The population included participants who had the characteristics in which the researcher was interested (Strydom & Venter, 2002:198), namely social workers employed for more than three years by the Gauteng Department of Social Development, Tshwane region at the following service points:

- Temba
- Pretoria
- Bronkhorstspuit/Ekangala
- Garankuwa
- Mamelodi

The researcher followed the Department of Social Development's protocol, according to which the Head of Department and regional director were informed about the proposed study and requested for permission to conduct the study, which was granted. The researcher then divided the population according to the service points and requested a list of names of all the social workers who had been employed for more than three years and who met the criteria below from their respective supervisors. The researcher then telephonically contacted all the participants from the list until obtaining ten participants from each service point that matched the criteria. The researcher selected a sample of thirteen participants employed at the Department of Social Development, Tshwane Metro from the five selected service points according to specific criteria, or to the point of data saturation.

Social workers who met the following criteria were recruited for the study:

- Registered social workers who were employed at the Tshwane Department of Social Development at the time.
- Social workers representing the five selected service points.
- Social workers who were willing to take part in the study.

- Social workers with a minimum of three years of working experience in the communities of the Tshwane Metro.
- Social workers who were able to converse in English in order to avoid any breakdown in communication.

3.5.2. Data collection

Interviewing was the method the researcher used to collect information. Greeff (2011:342) asserts that the interview is a social relationship, which aims to exchange information between the participant and the researcher. In this research study, the researcher used the semi-structured interview, which is suitable for gaining a detailed picture of a participant's beliefs about, or perceptions or accounts of, a particular topic (Greeff, 2011:351). The researcher used the semi-structured interview to gain details about the social workers' experiences about their roles in addressing issues of environmental justice in the Tshwane region. The researcher made use of an interview schedule with a set of predetermined questions that elicited the information required.

The advantages of an interview schedule include questions that will be guided rather than dictated by the schedule and that the participants will have the opportunity to share more closely in the direction the interview takes and may even introduce an issue the researcher had not thought of (Greeff, 2011:352). An additional advantage of an interview schedule is that it will allow the researcher control over the line of questioning (Creswell, 2009:179). A challenge that may face the researcher when conducting interviews includes recording and managing the large volume of data that may be generated. To overcome this challenge, the interviewer asked a single question at a time and also ensured that the questions were clear and brief (Greeff, 2011:343). The interviewer used both closed- and open-ended questions. Closed-ended questions were asked when all the possible, theoretically relevant answers to a question could be determined in advance and the number of possible responses was limited (Delpont & Roestenburg, 2011:198). For the purpose of this study, open-ended questions were asked to learn how social workers understood environmental justice and to discover what they thought their role was in promoting environmental justice.

Most importantly, the researcher obtained permission from the participants to use an audio/digital recorder to allow for a much fuller record than notes taken during the interview (Greeff, 2011:359). The interviews were conducted at the participants' offices because it was a non-threatening environment and easily accessible for the participants. Had participants not been comfortable with this arrangement, the interviews would have taken place where it would be comfortable for the participant. Each interview lasted a minimum duration of 30 minutes to a maximum of 45 minutes.

3.5.3. Data analysis

The qualitative data was analysed according to Creswell's analytical spiral by implementing different steps as described by Schurink, Fouché and De Vos (2011:403-419). The process of data analysis entails making sense of text data and furthermore, it includes arranging the data for analysis, conducting different analyses and moving deeper and deeper into understanding the data, representing the data, and making an interpretation of the larger meaning of the data (Creswell, 2009:183).

Step 1: Planning for recording the data

The researcher prepared and organised the data in a systematic manner that was appropriate to the setting, research participants, or both, and that would facilitate analysis, before the data collection commenced (Schurink, Fouché and De Vos, 2011:404). The researcher completed this step by transcribing interviews, optimally scanning material, typing up field notes, or sorting and arranging the data into different types, depending on the sources of information (Cresswell, 2009:185).

Step 2: Data collection and preliminary analysis

Data collection and preliminary analysis are steps in which the researcher obtains all the data and only afterwards analyses and interprets it (Schurink, Fouché and De Vos, 2011:405). The researcher started detailed analysis with a coding process. During this step, the researcher read through all the data to obtain a general sense of the information and to reflect on its overall meaning (Creswell, 2009:185). The researcher then started recording general thoughts about the data.

Step 3: Managing the data

The data was reduced by identifying the main themes and linking the ideas and beliefs of the participants with factors that contribute to the role of social workers in promoting environmental justice at the Tshwane Metro (Schurink, Fouché and De Vos, 2011a:408). Testing the evolving understanding of this phenomenon, the researcher evaluated the findings. The researcher then made sense of all the data and linked it with the role of social workers in addressing issues of environmental justice, before interconnecting the themes into narratives (Creswell, 2009:189). The themes appeared as major findings in the study and were used by the researcher to create headings in the findings sections of the study (Creswell, 2009:189).

Step 4: Reading and writing memoranda

After the organisation and conversion of the data, the researcher continued with the analysis by getting a general impression of the entire data base (Schurink, Fouché and De Vos, 2011:409). The researcher read through the transcripts in entirety several times to get immersed in the details, trying to gain a sense of the interview as a whole before breaking it up into parts, to be presented in written and tabular format.

Step 5: Generating categories and coding the data

During this step, the researcher identified themes, recurring ideas or language and patterns of belief that linked people and settings together (Schurink, Fouché and De Vos, 2011:410). This process of category generation involved noting regularities in the setting or participants chosen for the study. This task can also be referred to as “first-level coding”, which is a combination of identifying meaning units, fitting them into categories and assigning codes. During this step, the researcher began with a process of organising the material into segments of text before assigning meaning to information (Creswell, 2009:186).

Step 6: Testing emergent understandings and searching for alternative explanations

The researcher began the process of evaluating how things that are not in the data can be important for the analysis. This involved a search through the data during which the researcher challenged the understanding, searched for negative instances

of patterns and incorporated these into larger constructs, as necessary (Schurink, Fouché and De Vos, 2011:415). As part of this phase, the researcher also evaluated the data for its usefulness and centrality. The researcher determined how useful the data was in illuminating the questions being explored and how central these questions were to the story that was unfolding about the social phenomenon being studied (Schurink, Fouché and De Vos, 2011:415).

Step 7: Interpreting and developing typologies

In this step the researcher made sense of the data, the “lesson learned”. The researcher took a step back and formed broader opinions of what was going on in the data, then developed typologies or systems for categorising things or concepts to begin to make conceptual linkages between seemingly different phenomena to build theory (Schurink, Fouché and De Vos, 2011:416).

Step 8: Presenting the data

In the final phase of the spiral, the researcher presented the data, a packaging of what was found in text, tabular or figure form. Babbie (2007) as cited in De Vos, (2011:418) refers to this process as “concept mapping”. Information was also presented in hypotheses or propositions that specified the relationship between categories of information.

3.6. Data quality

The trustworthiness of a research study is important in evaluating its worth, so the researcher focused on trustworthiness as a way of evaluating the worth of this study. Lincoln and Guba (1999) as cited in Schurink, Fouché and De Vos (2011:419-422), assert that the trustworthiness of qualitative research can be attended to through four specific strategies, namely credibility, transferability, dependability and conformability:

- The credibility of the research ensured that the subject of the study was accurately identified and described by the researcher (Schurink, Fouché & De Vos, 2011:419). This entailed checking transcripts to make certain that they did not contain obvious mistakes made during transcription (Creswell, 2009:190). The researcher had confidence in the truth of the findings and applied the peer debriefing strategy to ensure credibility. The researcher used

member checking to determine the accuracy of the findings by taking the final report or themes back to the participants and determining whether the participants felt that they were accurate (Creswell, 2009:191).

- The transferability of the qualitative approach included a process where the researcher made sure that the data collected from the cases could be transferred to another case (Schurink, Fouché & De Vos, 2011:420). The researcher showed that the findings had applicability in this context and other contexts as well. To complete this step, the researcher referred back to the original theoretical framework to show how the data collection and analysis were guided by concepts and models (Schurink, Fouché & De Vos, 2011:420).
- The dependability aspect of the data was processed through documentation, where the researcher made sure that the study was dependable (Schurink, Fouché & De Vos, 2011:420). The researcher proved that the findings were consistent and could be repeated. The researcher attempted to account for changing conditions in the phenomenon chosen for the study, as well as changes in the design created by an increasingly refined understanding of the setting. The researcher documented the procedures of the case studies, and as many of the steps of the procedures as possible (Creswell, 2009:190).
- Conformability was ensured by the researcher, where the evidence provided corroborated the findings and interpretations. The researcher displayed a degree of neutrality, referring the extent to which the findings of a study are shaped by the participants and not researcher bias, motivation, or interest. The researcher used peer debriefing to enhance the accuracy of the account and located colleagues at the Department of Social Development who reviewed and asked questions about the study, so that the account resonated with people other than the researcher (Creswell, 2009:192).

3.7. Pilot study

A pilot study can be defined as a small study conducted prior to a larger piece of research to determine whether the methodology, sampling, instruments and analysis are adequate and appropriate (Strydom, 2011:237). The researcher conducted a pilot study in order to fine-tune the process for a smooth main inquiry.

Furthermore, the researcher conducted a feasibility study in order to compile a practical framework of the proposed activity, including the resources, research population, procedures of data collection and data gathering (Strydom, 2011:237). This was followed by testing of the measuring instrument, where the first two participants were taken through the entire planned research process to test whether its elements, particularly the measuring instrument, functioned as planned (Strydom, 2011:247). Lastly, the researcher conducted an evaluation of the pilot study in order to determine the weak and strong points of the investigation, to determine where amendments could be or should be made (Strydom, 2011:246). The two pilot interviews formed part of the main study's data, as no variations had to be effected to the research procedures and interview schedule after the two pilot interviews had been completed. Furthermore, the pilot test of the two first interviews enlightened the researcher on the feasibility of the study in terms of the willingness of the participants to take part in the study, as well as the time required to complete each interview (Strydom & Delpont, 2011:395)

3.8. ETHICAL CONSIDERATIONS

The researcher needed to protect her research participants, develop trust with them, promote the integrity of research, guard against misconduct and impropriety that might reflect on her institution and cope with new, challenging problems (Creswell, 2009:87) through the ethical considerations to ensure that the participants involved were not harmed as a result of the research activity. Furthermore, the researcher obtained permission from the Department of Social Development to conduct the study. In this study the following ethical considerations were applicable:

3.8.1. Avoidance of harm

The essential ethical rule of social research is that it must bring no harm to participants (Strydom, 2011:115). This study did not bring any harm or pose unreasonable risks to the participants and was implemented in accordance with the fundamental ethical obligation to safeguard the physical, psychological and emotional wellbeing of the participants (Neuman, 2011:146). The researcher articulated the purpose of the research in a coherent manner to the selected participants before the interviewing began. Effective debriefing was also provided

after the interviewing process to determine whether the process had been emotionally painful. If it was evident that the participant had suffered any negative effects from the interviewing process, he/she was referred to a social worker who is responsible for employee wellness in the Department of Education at the Gauteng North District. The participants were also allowed to clarify any questions they might have had regarding the study. The researcher again informed the participants how the information they provided would be used in the research process and assured them that their interviews would remain confidential and that their identity would not be linked to the information they provided (Strydom, 2011:122).

3.8.2. Voluntary participation and informed consent

Participation in this study was voluntary at all times and no one was forced to participate in the project (Strydom, 2011:116). For this study, the researcher obtained written permission from the participating organisation, the Department of Social Development, to conduct the research. Furthermore, the researcher obtained informed consent from the social workers taking part in the study. The researcher carefully explained the purpose of the research to the participants in a clear manner and the participants were informed that they were under no obligation to participate, and if they chose not to or felt that they wanted to withdraw after the study had started, their decision would be respected, with no negative implications for them.

3.8.3. Violation of privacy/confidentiality

Every participant had the right to privacy. Confidentiality was promised in the agreement between the researcher and the participants, and the necessary personal information was secured through the use of pseudo-names (Strydom, 2011:119). It was communicated to the participants that this study did not allow for anonymity, since the researcher knew the participants' identity, but the researcher could guarantee confidentiality in that the identity of the participants would only be known to the researcher. The data collected was also safely stored in a secure environment at the University of Pretoria for a minimum of 15 years.

3.8.4. Actions and competence of researcher

The researcher ensured that her actions were ethical in that she was honest, competent and conducted the study with adequate skills she had obtained through

training (Strydom, 2011:123). To ensure that the research occurred in an ethically sound manner and that each participant was treated in a respectful manner, the researcher worked in close collaboration with her supervisor (Strydom, 2011:124).

3.8.5. Publication of findings

The findings of the study will be introduced to the reading public through a scientific journal (Strydom, 2011:126). The participants were informed about the findings in an objective manner, without offering too many details or compromising the principle of confidentiality, as a form of recognition and to maintain future good relationships with the community concerned (Strydom, 2011:126).

3.9. EMPIRICAL FINDINGS

In this section, the empirical findings of the study are discussed. The biographical details of the participants are provided, followed by a discussion of the empirical findings according to main themes and sub-themes based on the analysis of the data collected by means of semi-structured interviews with the participants in the study. The discussion of these findings includes integration with literature.

3.9.1. Biographical information

The sample of the study consisted of 13 participants who were selected according to purposive sampling criteria. The first 13 participants who were willing to take part in the study voluntarily formed the sample of the study. The biographical information of the participants is presented in Table 3.1 below:

Table 3.1: Biographical information of participants

Participant	Years in service	Service point	Unit	Gender	Age group	Race	Home language
1	4	Bronkhorstspuit	Statutory & probation	Male	19-35	Black	Tswana
2	9	Garankuwa	Intake & field	Female	30-45	Black	Tsonga
3	4	Garankuwa	Intake & field	Female	35-45	Black	Tswana
4	8	Garankuwa	Intake & field	Female	19-35	Black	Pedi
5	6	Bronkhorstspuit	Statutory	Male	19-35	Black	Tsonga

6	8	Pretoria CBD	Intake & field	Female	19-35	Black	Sotho
7	5	Pretoria CBD	Intake & field	Female	19-35	White	English
8	5	Pretoria CBD	Intake & field	Female	19-35	Black	Zulu
9	7	Temba	Statutory	Female	19-35	Black	Tswana
10	5	Temba	Intake & field	Female	19-35	Black	Tsonga
11	7	Temba	Statutory	Female	19-35	Black	Pedi
12	9	Mamelodi	Statutory	Female	19-35	Black	Pedi
13	3	Mamelodi	Statutory	Female	19-35	Black	Tsonga

Eleven female and two male participants took part in the study. Eleven of the participants were aged between 19 and 35, while only two participants were between the ages of 30 and 45. Twelve of the participants were black and only one participant was from the white racial group. The study comprised three participants whose home language was Tswana and three who spoke Pedi. There were four participants whose home language was Tsonga and only one each who spoke English and Zulu. Two of the participants were deployed at the Bronkhorstspuit service office, two at the Mamelodi service office, three at the Garankuwa service office, three at the Pretoria CBD and another three at the Temba service office.

3.9.2. Themes and subthemes

The key themes and sub-themes that emerged from the data are presented in this section. The findings are supported by direct quotations from the participants and subsequently, the integration of the literature follows in a discussion of the findings.

A summary of the identified themes and sub-themes that emerged from the data is presented in Table 3.2 below.

Table 3.2: Themes and sub-themes

Themes	Sub-themes
Theme 1: The participants' understanding of what constitutes environmental justice	1.1. People caring for the environment 1.2. A clean and healthy environment 1.3. People living in harmony with the environment
Theme 2: Environmental issues that exist in communities served by	2.1. Air pollution 2.2. Sewage pipe leakages

participants	2.3. Overpopulation 2.4. Littering 2.5. Flooding
Theme 3: The impact of environmental issues	3.1. Health implications 3.2. Job losses 3.3. Increased dependency on welfare services
Theme 4: Services rendered by participants in line with environmental justice	4.1. Awareness campaigns 4.2. Home visits 4.3. Promoting environmental justice through gardening projects
Theme 5: The roles of social workers in promoting environmental justice	5.1. Advocacy 5.2. Social worker as a broker 5.3. Social worker as an educator

3.9.2.1 Theme 1: The participants' understanding of what constitutes environmental justice

Findings from the study indicate that the participants mainly understood environmental justice as taking care of the environment so that in turn, the environment can respond to the needs of the people. According to the participants, taking good care of the environment will reduce the chances of people falling ill or environmental disasters occurring. The view of two of the participants provides a comprehensive picture of what constitutes environmental justice:

“Okay I see environmental justice as us caring for the environment for the environment to take care of us like if we are good with the environment then we are reducing chances of getting ill or any other environmental concerns” (Participant 9).

“Environmental justice is advocacy for all people in society to live in environments that are conducive to their health, their emotional wellbeing and development of course. Environments have a big impact on a person’s development” (Participant 1).

The views of the participants of what constitutes environmental justice indicate understanding of the definition of environmental justice as the equitable distribution of both benefits and the challenges involved in preserving healthy and sustainable

environments that all beings can appreciate (Dominelli, 2013:431). In order to achieve sustainable development of the environment through the social development approach, communities must give primary consideration to the carrying capacity of nature and be aware of it. Persistent efforts to preserve and recycle natural resources, as well as minimise environmental pollution so that forthcoming generations will be able to enjoy the same clean, natural resources and a favourable environment for survival, must also be given priority by communities (Harris, 2015:01). The theme will be further explored below in the form of sub-themes.

The following sub-themes on the participants' understanding on what constitutes environmental justice emerged:

Sub-theme 1.1: People caring for the environment

It emerged in the study that six of the participants were of the view that environmental justice constitutes people caring for the environment in which they live. Caring for the environment would ensure that the environment takes care of the people in return. According to the participants, caring for the environment entails people planting more trees and encouraging others not to cut them down. One participant mentioned that in most of the rural communities, residents still use wood to make fires to cook, which means they have to cut down trees. Another participant was also of the view that failure to plant trees in the new suburb areas has resulted in many houses' roofs being blown off by strong winds because trees not only provide clean air, but also act as a shield against strong winds. Two of the participants' views regarding people caring for the environment were as follows:

“Okay if you were to say I am doing justice to the environment, if I would stop littering, if I would involve myself in planting trees encouraging people not to cut them down because when you cut them down you are contributing to soil erosion, if you can stop burning the grass you know people have a tendency of burning grass in winter I don't know why because it contributes to soil erosion, air pollution and it's also risky because sometimes they burn the grass just by the road. You will be driving there and you don't even see your way” (Participant 6).

“I think it is about responding in a positive manner that would not affect and not contribute to the bad climate change. Yes and it can be in terms of polluting the environment you know and responding to the nature as it is, you know not cutting trees...” (Participant 5).

The above quote indicates an understanding of the benefits that planting trees have in caring for the environment as part of the bigger picture, which is attaining environmental justice. Boyd (2017:25) also asserts that efforts to restore and manage green infrastructure, including urban forests, have yielded various physical, mental, social and economic benefits that are decreasing many of the negative impacts of urbanisation. Since the social work profession in South Africa has adopted the social development approach, social workers are mandated to play a leadership role in the planning stages of any new environmental state or intervention process in order to address human development needs (Zapt, 2010:30). Responses from the participants also emphasised the importance of maintaining a clean and healthy environment as part of their understanding of what constitutes environmental justice.

Sub-theme 1.2: A clean and healthy environment

The findings presented above indicate that caring for the environment is an integral part of what constitutes environmental justice; however, according to four of the participants, maintaining a clean and healthy environment is also a significant component of what constitutes environmental justice. The participants mentioned ensuring that there is no littering in the communities as a way of ensuring that the environment is kept clean. One participant mentioned that a clean environment is one where all her clients would be able to feel healthy without the presence of any health hazards in the area that would potentially make them vulnerable to diseases. The views of three of the participants with regard to maintaining a clean and healthy environment are expressed in the following quotes:

“Environmental justice is advocacy for all people in society to live in environments that are conducive to their health, their emotional wellbeing and development of course” (Participant 1).

“Okay firstly, I will want to see if the environment is being taken care of, like it is clean first thing” (Participant 3).

“For me I would say it’s whereby residents living within a particular space are able to take care of that space so that they can live a healthy life in that space not affecting the space in a way that it’s going to impact on their health in a negative way” (Participant 11).

In the context of this study, as mentioned previously, environmental justice refers to the equal involvement of all people in maintaining a clean and healthy environment

to ensure that it provides adequately for current as well as future generations (Nesmith & Smyth, 2015:489). As is evident from the responses, the participants were in line with what authors defined as environmental justice. In addition, some of the participants specifically mentioned that environmental justice also meant people living in harmony with the environment.

Sub-theme 1.3: People living in harmony with the environment

In addition to people caring for the environment and maintaining a clean and healthy environment, two participants were of the view that people living in harmony with the environment constitutes what can be referred to as environmental justice. The participants stated that people living in such harmony means that they cherish what the environment provides to people in terms of resources so that these resources can also be available to future generations. The two participants described their views of people living in harmony with the environment in the following quotes:

“Environmental justice to me would be people living in harmony with the environment and using the resources in a sustainable manner so that you know to survive the environmental disasters including the adverse weather conditions” (Participant 7).

“I would say I think the ability for the environment to, I think to provide for people that are living within it I think also for the people who are living in it to be able to care of it. So I think it fits to each other, with the environment responding to the needs of the people and then people also taking care of the environment to ensure that it continues to take care of them” (Participant 8).

From the view expressed by the participants in this sub-theme, the important link between environmental justice and sustainable development emerged. It became evident that the promotion of environmental justice is crucial for the attainment of sustainable development. Studies have proven that environmental justice offers much of the foundation for sustainable development to take place, and also demonstrates how sustainability can progress the capacity to attain environmental justice (Salkin, Dernbach and Brown, 2012:18). The view of the participants is supported by the above-mentioned authors.

3.9.2.2 Theme 2: Environmental issues that exist in communities served by participants

The participants identified mainly five environmental issues in the communities in which they were deployed that compromise the prospects for social development and the potential for individuals to live fully capable, productive lives (Mason, 2015:3). These environmental issues are incorporated in the following sub-themes:

Sub-theme 2.1: Air pollution

Five of the participants identified air pollution as one of the most prominent environmental issues in the Tshwane Metro. According to four of these participants, air pollution can be attributed mostly to industrial facilities that are operating within the Tshwane Metro. In addition, the high number of residents who smoked cigarettes was identified as a major contributor to air pollution. The participants were of the view that this was mostly due to a lack of punitive laws against people who smoked in public areas. Of the five participants who identified air pollution, one of the participants who serviced rural areas of Tshwane Metro stated that the lack of resources such as electricity in some of the rural areas was the main cause of air pollution. This participant suggested that people residing in rural areas still have to cut down trees to make fire to prepare their daily meals. The following quotes capture the views of the participants regarding air pollution as an environmental issue:

“I think air pollution we have lots of firms” (Participant 10).

“Yeah just like that, like here there’s a park and it’s always packed. Even now during office hours there’s always few people, after hours it’s even worse people just smoke there it’s hubbly bubbly it doesn’t matter, cigarettes it doesn’t matter so air pollution” (Participant 11).

“Let’s talk about the farm areas where I am working. Where I have seen most of the pollution happening, it’s air pollution. Majority of people are still using wood to cook, remember it’s a rural area, Sokhulumi area” (Participant 5).

As is evident from these responses, air pollution has more than one cause. Studies suggest that factories and other industrial facilities have produced air pollution since the emergence of the industrial age by burning fuels, carrying out chemical

processes and releasing dust and other particulates (Kielmas, 2018). In line with what the participants mentioned, Obi, Osang, Ewona, Udoimuk and Kamgba (2013:87) argue that the major harmful pollutants in cities include carbon monoxide, sulphur dioxide, ozone, nitric oxide, particulate matter and smog, which is caused to a significant extent by cigarette smokers. In addition to air pollution, findings suggest that the constant leakage of sewage pipes is a major challenge in the Tshwane Metro.

Sub-theme 2.2: Sewage pipe leakages

A crucial finding was that six of the participants identified the constant leaking of sewage pipes as one of the most significant environmental issues that had dire consequences for residents. Participants mentioned how leaking sewage pipes hardly ever received urgent attention from the municipality. This becomes a huge challenge because it results in serious health implications for residents. The participants further mentioned that the smell from all the sewage becomes unbearable for the residents but despite this, the municipality hardly treats this matter with the sense of urgency it deserves. The participants' views on sewage pipe leakages as an environmental issue are reflected in the following responses:

“Sewage basically, yes everywhere especially Rankuwa side, Rankuwa view side, because there is always flooding of sewage water” (Participant 4).

“... Sewage leakage and people throwing things. Like somebody will take a bath there is no proper drainage systems like even if you don't have running water or something you use a what is this a vaskomp” (Participant 6).

“. So when you go there what they did was they built sort of a trench for the sewage that they live on a little hill so the sewage runs all the way from the top of the hill to the bottom of the hill in between the shacks...” (Participant 7).

“So it smells most of the time while you are sitting outside there even clients when they are waiting to enter into our office it smells” (Participant 2).

Tampa (2016) argues that sewage can become a harmful source of pollutants or contaminants that can infiltrate the human eco-system and be dangerous to the health, hygiene and comfort of residents. As identified by the participants, leaking sewage is indeed a cause for concern and can therefore be identified as one of the

environmental issues affecting urban areas. Often the influx of many people into the cities, causing overpopulation, as identified by one of the participants, also causes a shortage of resources, including lack of proper drainage systems, that then leads to sewage leakages. Overpopulation as an environmental issue will be discussed in the next sub-theme.

Sub-theme 2.3: Overpopulation

Despite the noticeably increased rate of people moving into cities in search of better opportunities, overpopulation was only identified by one participant as an environmental issue. The participant identified poverty as the leading cause of overpopulation. Furthermore, the participant noted that overpopulation often leads to lack of access to vital resources such as adequate health care, sanitation and proper housing. This then leads to violent protests, causing further destruction to the environment. According to the participant, destruction of the environment usually includes vandalism of already existing resources, such as the burning of health facilities and learning institutions.

“Right now, for the past two years Olieven has been going through a phase where they building RDP houses and I would say there’s a lot of other environmental issues but the most prominent one is overpopulation because I mean the set-up in Olieven is RDP houses and then you find that because there’s a lot of poverty there then the home owner would build maybe I’ve shacks or 10 shacks within the yard so that they can, the more people that they rent ...” (Participant 8).

The participant’s response indicated that overpopulation in the Tshwane Metro had brought about different types of other negative environmental issues. Uniyal, Paliwal, Saun and Sharma (2017:04) also note that overpopulation has severely affected the quality of life by imposing a burden on existing resources to fulfil the basic needs of a huge population, which results in an elevated poverty percentage. Littering was another environmental issue that was identified as one of the most prominent issues in the metro.

Sub-theme 2.4: Littering

Six of the participants identified littering as a serious environmental issue. The findings of the study suggest that littering had resulted in the formation of numerous dumping sites. These dumping sites usually consist of paper, plastic and used

disposable napkins. One of the participants further noted that the littering not only has an impact on the residents, but also has dire consequences for animals and the soil. Furthermore, the participants noted that the municipality usually left the litter uncleaned. This is reflected in the following views of the participants:

“People are just feeling free to just litter even when dustbins are there” (Participant 6).

“... it’s a mess there, like there’s dumping of Pampers (disposable napkins) especially those younger moms” (Participant 12).

“And the other thing, when you can check at Garankuwa there are animals here you understand, if we throw away maybe like those plastics and whatever they eat and they die” (Participant 2).

“It’s never cleaned and besides that they are not safe for the kids” (Participant 4).

According to four of the participants, litter as an environmental issue had a number of serious implications, not only for the environment but also for vulnerable populations. In the literature, it is also suggested that litter has a significant and detrimental impact on the natural environment, people and animals. Therefore, the quality of the environment should be a concern to every person and an acknowledgement that all people have a responsibility to care for the natural world, which will lead to a better society for all (Packman, 2017:01). Litter can also become a huge concern during heavy rain. Flooding was also identified by the participants as an environmental issue that should be taken note of in the Tshwane Metro.

Sub-theme 2.5: Flooding

Only two participants identified flooding as an environmental issue that usually leads to extreme levels of poverty in the communities. Furthermore, the participants identified informal settlements as mostly affected by floods because they are situated in low-lying areas, therefore flooding occurs during periods of heavy rain. In the literature it is also suggested that flooding and poverty are two social problems that have coexisted in communities and as a result, both issues have negatively affected and disrupted the everyday pattern of people’s lives (Dube, Mtapuri & Matunhu, 2018:01). The participants’ responses below highlighted flooding and the impact thereof as an environmental issue:

“Bronkhorstspuit is a low-lying area so when there is heavy rain there is flooding, especially amongst people who stay in places that are not demarcated by the municipality meaning informal settlements. Most of those people there is flooding in the areas where they stay in” (Participant 1).

“Flooding leads to a lot of damage of household items, people get sick, they catch flu” (Participant 2).

In line with what the participants suggested about the effects of flooding, literature also indicates that floods have been reported to cause very large amounts of material damage and casualties worldwide, which include all types of physical and intangible assets, including private homes, and agricultural, commercial and industrial stocks and facilities, natural resources and the environment (Kundzewicz et al., 2013:03).

Poor communities that consist of vulnerable groups are most likely to be the first to feel the impact of the above-mentioned environmental issues and are most likely to be most severely affected. The participants identified three critical impacts of environmental issues, which will be discussed in the next theme.

3.9.2.3 Theme 3: The impact of environmental issues

Findings from the study demonstrated that environmental issues have dire consequences for communities and have a number of impacts on residents, ranging from health implications and dependence on the welfare system to job losses. The participants were of the view that these impacts seemed to have a much more negative effect on mostly vulnerable groups, which were identified as the poor and children. Although three impacts of environmental issues were identified, health implications were mentioned by the majority of participants as the most noticeable and urgent impact.

Sub-theme 3.1: Health implications

Eight of the participants described health implications as one of the most critical impacts of environmental issues. The participants noted that the residents complained mostly of tuberculosis, sinusitis and headaches, which may be a result of the environmental issues that were identified. The prevalence of these illnesses

becomes a huge challenge because health care facilities in the communities are unable to render an efficient service to all residents. The participants further noted that these health implications had an impact on productivity levels because they themselves often fell ill from the smell at some of their offices. The participants related their experiences as follows:

“They do have a negative impact to the community because health wise they harm the people in the community especially the drainage system” (Participant 4).

“I don’t think people are healthy I am looking at the clients that used to walk in nah not really” (Participant 6).

“Yes because sometimes it makes us [social workers] sick, sometimes you get a headache because of the smell” (Participant 3).

Research indicates that environmental issues have various adverse health effects from early life (Kelishadi, 2012:01). Tyagi, Paudel and Garg (2014:1496) argue that the harmful consequences of these environmental issues to human health are already being felt and could potentially increase significantly over the next 50 years. Because the environment and health are so intimately linked, so too should be environmental and health policies. Participants indicated that the health implications of environmental issues in communities usually lead to decreased levels of productivity and even job losses in some instances. The social development approach clearly outlines that primary health care and nutrition provide tangible social and economic returns (Patel, 2015:31), so promoting environmental justice is of the utmost importance, as some of the highlighted health challenges emanate from the presence of environmental issues. Job losses as an impact of environmental issues was also noted by the participants and will be discussed in the next sub-theme.

Sub-theme 3.2: Job losses

The loss of employment was identified by two participants as a result of environmental issues that existed in the communities. One participant indicated that the existence of environmental issues increased vulnerability to illnesses in residents, which in turn caused decreased levels of productivity in the workplace, ultimately resulting in job losses as these illnesses become chronic. This then

becomes the genesis of poverty or increased levels of poverty in families that were already living in poverty. The view of the participant is reflected in the verbatim statement below:

“People do work, but then you find that due to these environmental impacts, they end up losing their jobs. We have clients who are living with epilepsy, who have TB you know they get sick to such an extent that they can’t work and that obviously impact on their families, it leads to poverty, it leads to homes where both parents are not having any income so yes it’s very, there is a big impact of how one’s environment can actually have dire consequences on your life” (Participant 1).

Research has shown that increases in respiratory and/or water- and food-related diseases and the risk of malnutrition caused by environmental issues in communities will affect employment negatively (United Nations Environment Programme, 2008:58). As also mentioned by one of the participants, these health-related impacts will undoubtedly affect workers’ productivity as well as the future incorporation of young workers into the workforce because of the irreparable damage to their health that began during their childhood (United Nations Environment Programme, 2008:58). The participants further mentioned that the negative impact of environmental issues on employment may result in higher levels of poverty and thus increased dependence on the welfare system by communities. The increased dependence on the welfare system will be discussed in the next sub-theme.

Sub-theme 3.3: Increased dependence on the welfare system

From the responses of three participants, it became evident that there is an important link between people’s health, job losses and dependence on the welfare system. One participant highlighted how an environmental issue can cause a person who is a breadwinner in their family to fall ill, which may result in the loss of productivity in the workplace. The loss of productivity may ultimately lead to joblessness, therefore causing the person to start depending on a social grant as a means of survival. Two other participants further noted that in most instances, the distribution of social grants was not developmental in nature. It creates dependence on the welfare system instead of empowering people to participate in activities that

will contribute to the attainment of sustainable development. The participants' views in this regard are as follows:

“When somebody is sick and they are not working and they were the breadwinner we have to sometimes remove children, we have to provide food parcels to the family if the parent is still strong enough or in a position to care for the children, we have to also go to the municipality and other departments to ask for disaster relief, we go to SASSA also for help with food parcels yes but most of the work and the impact of climate change and all these things that are happening within the environments that our clients are living in ...” (Participant 1).

“Without us [social workers] they are nothing, they will just come, okay go to SASSA, it's done, they think about money how instead of at least trying to start your own thing in order to survive, no, we just refer instead of why can't you do so and so” (Participant 2).

“No, I think we are teaching our people that dependency is the way to go because now if it comes to our food parcels I always have a problem with that” (Participant 10).

While the participants may have identified the important link between health implications, job losses and dependency, studies have proven that in South Africa many people are simultaneously faced with poverty, environmental issues, unemployment, the incidence of diseases such as HIV/AIDS and socioeconomic systems that are heavily reliant upon the natural resource base, and therefore vulnerable to global change (Nahman, Wise & de Lange, 2009:350). Being vulnerable to global change will make it quite challenging for South Africa to then attain the sustainable development goals. From the above-mentioned responses, it can be noted that most of the social workers at the Department of Social Development are working from a residual approach rather than a developmental one. The social workers will need to start adopting the social development approach because the driving force of the model is creative human agency and the power of service users to bring about change in their lives and social conditions, instead of creating dependence (Patel, 2015:123). The services rendered by the participants will be discussed in more detail in the following theme.

3.9.2.4 Theme 4: Services rendered by participants in line with environmental justice

All the participants who took part in the study rendered services under the statutory unit at their respective service points, as noted from the biographical information. The participants explained that work done under this unit comprised mostly prevention and early intervention services. In general, these services comprised the protection of vulnerable groups, family preservation and foster care cases. Three of the participants described the services they rendered as follows:

“...We [social workers] focus mostly on statutory and early intervention services so complaints or and then protecting the vulnerable group so that would be you know children affected by HIV, older persons, disabled etc. so we do child protection services which means removal of children to safe care or family parenting plans, let me just say placement of the persons who are disabled, investigations of allegations of abuse, parenting skills so it's very broad what we do its basically promoting family preservation” (Participant 7).

“Okay we do counselling, individual, groups and also family therapy and other is foster care and the other one is programmes” (Participant 4).

“What we do at statutory we do courts, for instance maybe kids without parents, the orphans and then we place them under foster care placement with their foster parents that we think they're fit and proper to care for them. Now we get to monitor that placement, even kids whom don't have homes we place them in temporary safe care and then some they're long term, some short terms depending on the situations” (Participant 11).

Ten of the participants were of the view that the above-mentioned services were also conducted in line with environmental justice. These participants mentioned that they conducted awareness campaigns that promote environmental justice as part of their interventions in their respective communities. In addition, home visits are also conducted, whereby maintaining a clean and healthy environmental is encouraged. Lastly, three participants also expressed that they had been empowering community members to start their own gardening projects with the aim of promoting sustainable livelihoods in the communities. Although the majority of the participants highlighted that they rendered the services mentioned above, one participant was of the view

that the participants do not conduct an overall assessment of the service user's needs in line with promoting environmental justice. The view of the participants is reflected in the following verbatim statement below:

"I'd say I don't do an overall assessment, I just say okay you [client] need food. I refer to sustainable for food bank but that is not sustainable or I do SRD [social relief in distress] which is only for three months but I don't think beyond that to say okay the sustainability of it ..." (Participant 8).

In light of the above-mentioned services rendered by the participants, it is crucial to note that the social development approach requires purposeful intervention from state and non-state social workers within comprehensive commitment to people-centred development (Patel, 2015:29). The three above-mentioned services rendered by the participants, which were viewed as being in line with promoting environmental justice in the social development approach, will be discussed in detail in the following sub-themes.

Sub-theme 4.1: Awareness campaigns

Six of the participants explained that in order to get any important information across to residents about concerns that affect them, such as environmental issues, they embarked on conducting awareness campaigns. Awareness campaigns or programmes were usually in the form of presentations. These awareness campaigns usually took place in schools, health facilities and even households. Conducting these awareness campaigns enabled participants to reach a greater number of people, especially in the targeted areas mentioned above. The participants mentioned that there was no specific programme that aimed to promote environmental justice at the Department of Social Development. Environmental issues were included as part of their awareness campaigns because of the circumstances in which their service users lived and that was highlighted in the following statements:

"To conscientise clients on how their environment impacts on their lives we do awareness programmes where we do outreach to schools, clinics and even the households that we visit. When I get to a house I don't only focus on the client I also look at the circumstances under which they are living in" (Participant 1).

“Yes we do different programmes, Yes we do awareness and we do workshops in families ...” (Participant 6).

“So via our awareness campaign, we teach them to take care of their health, to eat healthy, to exercise so if I can pick up one thing that gardening project they are busy with it and it’s a success” (Participant 2).

Further, one participant had the opinion that although a number of awareness campaigns were conducted in communities, they hardly produced the desired outcomes, as most service users tended to be ignorant about some issues that had an impact on their livelihoods. The view of the participant is reflected below:

“Yes it can, although you know like our community they tend to be ignorant, like you give them information but then they don’t do” (Participant 12).

In contrast with what the participants mentioned, literature argues that an appropriate environmental praxis is far more crucial than environmental awareness in view of the notion that an environmental praxis is not awareness but material processes that will encourage service users to adopt more ecological practices that will promote environmental justice (Conradie, 2003:128). Two of the participants mentioned that in the past, the Department of Agriculture once issued tools to the different communities, which would enable them to start their own projects that would sustain them, while ensuring that the environment was taken care of as well. Some of the community members took this opportunity and made use of it, while others again acted ignorantly, as noted by the participant. Since social workers are working from a social development approach, it raises huge concerns about whether the goals of the approach are being accomplished, bearing in mind that some service users tend not to be part of any of the activities that aim at promoting environmental justice. The social development approach is essentially a people-centred approach to development that stimulates citizen participation (Patel 2015:30), therefore the participation of all service users in promoting environmental justice is crucial.

Sub-theme 4.2: Home visits

Of all the participants that took part in the study, only four were of the view that conducting home visits as part of the work that they do compelled them to promote

environmental justice. Home visits entailed conducting an assessment of the service users' circumstances. The home visits are usually conducted by the participants as part of the foster care cases or as part of the programme with the elderly service users. In addition, there are cases that are reported anonymously. The participants reported that conducting home visits goes hand in hand with assessing the service users' environment. The participants noted that conducting an assessment usually assists with finding ways to empower the service users to take better care of their environment. The view of two of the participants in this regard was as follows:

“When you go into homes of elders that are not well cared for I think the environmental issue comes into play because you get there, it's an elderly then they live in a room that is not well ventilated and at times they're not given a bath on regular basis like the environment itself when you get into the house you realise it's not a good space so adding that environmental education or something like that into the service is beneficial” (Participant 9).

“... You go conduct a home visit maybe neglect cases especially foster care even with those neglect cases you go there, you go check on a family maybe somebody reported anonymously ...” (Participant 11).

Research has shown that environmental issues are complex challenges faced by communities, which require social workers to employ a range of intervention skills in the system in order to alleviate these challenges (Rinkel & Powers, 2017:21). Conducting assessments in the form of home visits can therefore contribute in this regard even though it is on a smaller individual scale (Rinkel & Powers, 2017:21). Two participants mentioned how some service users became even more vulnerable and prone to illness due to lack of a proper diet including vegetables. One participant stated that food banks did not have a supply of vegetables, which therefore has a direct impact on the service users who are in dire need. The participants said that it then became their responsibility to empower service users to start their own gardening projects. Promoting environmental justice through gardening projects will be discussed in detail in the following sub-theme.

Sub-theme 4.3: Promoting environmental justice through gardening projects

Promoting environmental justice through gardening projects was identified as crucial by three participants. According to these three participants, gardening projects are

helpful in terms of keeping the environment clean, cultivating the soil and fighting poverty, because it provided service users with food and the opportunity to become entrepreneurs. For service users who suffer from chronic illnesses, it assisted in providing food that is good for their health. The participants highlighted their views about the importance of encouraging service users to start their own gardening projects in the follow verbatim statements:

“We also again the issue of gardening project at Zone 4, we as the group of older persons programme we encouraged, we motivated the older persons to start something for themselves you understand. There is a gardening project there at Zone 4, even if you can go you will see large I mean cabbages, spinach, tomatoes, onions and Ga-Rankuwa is one of the place that the soil is too rich” (Participant 2).

“Yes and if you can notice, in Ga-Rankuwa the yards are big so most of the time we encourage our clients when they have a lot of space in their yards, to make the gardens because if they don’t do the gardens then it becomes difficult for them to always keep the yard clean. So at least if they have a garden then it keeps their yard clean” (Participant 3).

“Yes you are also thinking about poverty it can help them to get food” (Participant 3).

In line with what the participants mentioned, research has shown that gardens embody a sort of “double benefit” for low-income communities in the framework of environmental justice. This is because they not only eliminate the unhealthy challenge of dependence on harmful, insecure food sources, but also substitute them with an environmentally, socially, and individually healthy activity and food source (McIlvaine-Newsad & Porter, 2013:73). Mailhot (2015:10) argues that gardens play a large role in educating communities in various ways, including personal health and lifestyle choices, environmental consciousness and practical gardening skills. It has become apparent that the time to start examining ways in which social workers can proactively combat challenges against environmental justice has arrived. Their roles in this regard will be discussed in detail in the following theme and sub-themes.

3.9.2.5 Theme 5: The roles of social workers in promoting environmental justice

Although the participants stated that social workers do play several roles in promoting environmental justice, 12 of the participants said that they did not possess sufficient skills to do so at a level where they are satisfied with the services that they render in the communities. They felt that they could still be capacitated as social workers regarding what environmental justice fully entails by attending training sessions and engaging with departments that are custodians of ensuring that people are living in favourable environments, such as the Department of Environmental Affairs, among others. The views of some of the participants with regard to this issue can be seen below:

“I think I definitely need to learn more about the topic, get better insight into the different approaches there are and different projects and maybe see what other people have been doing” (Participant 7).

“I think we can still be capacitated as social workers regarding environmental justice. We need to go to more workshops regarding maintaining healthy environments. We need also to engage with departments that are also custodians of making sure people are living in environments that are healthy like the Department of Environmental Affairs, Water and Sanitation, the municipality ...” (Participant 1).

The social development approach suggests that social workers can be important change agents in adding value in the form of transformational change that could promote environmental justice and empower marginalised groups and eventually the world at large through the roles that they play (Lombard, Kemp, Viljoen-Toet and Booyzen, 2012:192). Despite not having sufficient skills to render services that promote environmental justice, the participants did identify three roles that they felt they were currently playing in promoting environmental justice namely advocacy, and the roles of the social worker as a broker and the social worker as an educator.

These roles will be discussed as sub-themes below.

Sub-theme 5.1: Advocacy

According to the responses of three participants, advocacy was identified as one of the crucial roles played by social workers in promoting environmental justice. One participant explained that although the role of advocacy is played by social workers in promoting environmental justice, it is done on a minimal scale. One of the participant explained that, in some instances, social workers play the advocacy role without even taking note that they are doing so. The following quote expresses the views of one of the participants:

“I think we social workers we are advocating for environmental justice even though it’s on minimal scale but I think the little that we are doing we are doing our part in conscientising our clients about a clean healthy environment and I mean it’s also in the constitution of South Africa, we all know that everybody is entitled to live in an environment that doesn’t impact negatively on the health so we as social workers I think we are doing even though sometimes we might not be aware” (Participant 1).

One of the participants stated that social workers have the ability and the interest to advocate the promotion of environmental justice mainly because they are aware of the environmental issues that exist in the communities in which they render a service through engagement with community members and community profiling. However, because of lack of sufficient knowledge on what environmental justice fully entails and the steps needed to take to achieve it, the participant expressed her concern that they then tend not to play an active role in advocating the promotion of environmental justice. The concern of the participant is reflected in the statement below:

“For me I feel I would say I believe we’ve got the voice but we don’t have the knowledge, for example like situation of Olieven where there’s overpopulation. There are community meetings where the MEC will be there, often we were just told just go there and get stats but for example there is a platform if now the department empowers us and we go to those meetings and if there’s a platform to say who are the social workers servicing the area you know what’s your input and then because we work on the ground level to say you know there’s high level of overpopulation ...” (Participant 8).

It is acknowledged in the literature that social workers engage with many service users and communities that suffer from environmental issues so thus, the social work profession is committed to advocating changes in conditions in the environment that disempower and marginalise individuals and communities (Teixeira & Krings, 2015:520). According to Miller, Hayward and Shaw (2012:270) social workers advocate environmental justice, recognising that social and environmental systems are interrelated and essentially linked to human rights, social justice and environmental justice through the social development approach. According to Haynes (2012:276), advocacy resumes with the education of social workers. The participants were therefore correct to note that they first needed to be empowered further in order to participate more in their advocacy role to promote environmental justice.

Sub-theme 5.2: Social worker as a broker

Some participants also identified their crucial role as that of a broker in promoting environmental justice. This entails assisting service users to obtain access to resources and making referrals to appropriate organisations. Five of the participants mentioned that this role emerges more during crisis intervention. Because of challenges caused by environmental issues, social workers usually become the first line of assistance in providing social relief, as noted by the participants. The participants further mentioned that social relief usually comes in the form of food parcels that social workers apply for at the South African Social Security Agency (SASSA) or the food bank on behalf of the service users. The participants raised concern about assisting service users in this regard. They noted that there is no sustainability in this kind of intervention, as it only lasts for three months. Some of the participants highlighted their views on to this issue below:

“People come for food parcels because their houses burnt down and we assist them with an SRD ...” (Participant 7).

“I refer to sustainable for food bank but that is not sustainable or I do SRD which is only for three months and I explain that to say but I don't think beyond that to say okay the sustainability of it ...” (Participant 8).

“... We have to also go to the municipality and other departments to ask for disaster relief, we go to SASSA also for help with food parcels yes but most of the work and the impact of climate change and all these things that are happening within the environments that our clients are living in, we are the first line of defence as social workers” (Participant 1).

“Yes, we need to network with other service providers to help our communities. We cannot do these things alone” (Participant 4).

The views of the participants indicated that there was no sustainability in just offering service users food parcels when in distress; social workers should instead be aiming to empower them to be more resilient. Literature indicates that social work organisations following the Global Agenda can actively encourage more sustainable methods of socio-economic development in environmentally distressed low-income areas by mobilising individuals and resources to develop new methods of employment that give them greater resilience in enduring future environmental shocks (Dominelli, 2014:344).

Sub-theme 5.3: Social worker as an educator

The participants indicated that they also played the role of an educator in promoting environmental justice. Two of the participants confirmed that they played the role of educator mostly through the awareness campaigns that they conducted on a monthly basis in the communities. They indicated that they educated service users on how to care better for their health and how to start their own gardening projects. According to the participants, this role is played in collaboration with other departments or stakeholders in the community. Two participants explained their role as follows:

“So via our awareness campaign, we teach them to take care of their health, to eat healthy, to exercise so if I can pick up one thing that gardening project they are busy with it and it’s a success” (Participant 2).

“I think in collaboration with other departments it would definitely, because we had already for many of our services we work together with other departments...” (Participant 7).

Although some participants indicated that they did not necessarily play that role, they did indicate that it was an important role that they could definitely start playing in their quest to promote environmental justice. One of the views of the participants in this regard was as follows:

We can, especially with awareness, we can encourage people to try and live in a safe environment, maybe get some pamphlets to show them or educate them a bit; it's something that we can do".
(Participant 6).

Research indicates that as educators, social workers provide knowledge and information for better social functioning (Schenk, Mbedzi, Qalinge, Schultz, Sekudu & Sesoko, 2015:17). In order to play this role more effectively, it is recommended that social workers have access to training if they wish to organise activities around specific environmental issues and could also be encouraged to develop new ways in which they can think of, talk about and incorporate environmental issues into social work practice (Cumby, 2016:70).

3.10. CONCLUSION

The chapter has explained the research methodology used in the study and presented the findings. The participants identified caring and living in harmony as what constitutes environmental justice. In addition, the findings of the study showed that some of the environmental issues that existed within the Tshwane Metro were air pollution, sewage pipe leakages, overpopulation, littering and flooding. The participants stated that these environmental issues affected the community members in terms of health implications, job losses and dependence on welfare services. In order to fight environmental injustices, the participants reported that they usually rendered a number of services, which included awareness campaigns, home visits and promoting environmental justice through gardening projects. This happened because they played three crucial roles, including advocacy, acting as a broker and acting as an educator.

The key findings of the study will be summarised in Chapter 4. The conclusions and recommendations based on the findings will also be presented.

CHAPTER 4

KEY FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

4.1 INTRODUCTION

The existence of environmental issues in communities compromises opportunities for the attainment of the social development goals and the potential for people to live fully capable, productive lives (Mason, 2015:3). Research has shown that the involvement of social workers in the promotion of environmental justice through the social development approach empowers marginalised groups and eventually the world at large through the roles that they play (Lombard, Kemp, Viljoen-Toet and Booyzen, 2012:192). In this study, the researcher explored the role of social workers in promoting environmental justice at the Tshwane Metro. This chapter will focus on the extent to which the goal and objectives of the study were achieved. In addition, the key findings are presented, followed by the conclusions drawn from the study. Finally, the researcher will provide recommendations based on the findings and conclusions.

4.2. GOAL AND OBJECTIVES OF THE STUDY

4.2.1 Goal of the study

The goal of the study was to explore and describe the role of social workers in promoting environmental justice at the Tshwane Metro. The goal was achieved through the appropriate use of the qualitative research methodology.

The goal of the study was attained by achieving the following objectives:

Objective 1

- To conceptualise and contextualise environmental justice in the conceptual framework of sustainable social development.

This objective was achieved in a discussion in Chapter Two and in Chapter Three (Section 3.9.2.1). The empirical findings of the study demonstrate that environmental justice in the conceptual framework of sustainable development can be identified or summarised as people caring for the environment, maintaining a clean and healthy environment and living in harmony with the environment.

In the literature consulted during the study, environmental justice was also identified and summarised as the equal involvement of all people in maintaining a clean and healthy environment to provide adequately for current as well as future generations (Nesmith & Smyth, 2015:489). It can be acknowledged that the promotion of environmental justice is significant in achieving sustainable development of the environment through the social development approach (Harris, 2015:01). This will include communities giving serious thought to the carrying capacity of nature, making persistent efforts to conserve and recycle natural resources, as well as minimising environmental pollution so that future generations will be able to enjoy the same favourable environment with clean natural resources for survival (Harris, 2015:01). This is supported by Salkin, Dernbach and Brown (2012:18), who argue that environmental justice provides much of the foundation for sustainable development, and show how sustainability can improve the ability of communities to achieve environmental justice. Efforts to restore and manage the green infrastructure, maintaining a clean and healthy environment and communities living in harmony with the environment are some of the vital aspects of promoting environmental justice that were identified in the study.

Objective 2

- To explore and describe the understanding of social workers of their role in promoting environmental justice.

This objective was achieved in Chapter Three (Sub-section 3.9.2.5). From the literature study, it emerged that social workers have a role to play in facilitating understanding of environmental issues, convincing people of the importance of focusing on environmentally embedded, eco-friendly forms of socio-economic development, working with local people to develop sustainable solutions to social problems, as well as encouraging the sharing of green energy technologies (Dominelli, 2012:89). In addition, one of the most important roles of social workers in environmental issues involves preparing people for change and building social capital and resilience (Peeters, 2012:13). In light of what the literature stated, the empirical findings demonstrated that social workers do play a role in promoting environmental justice that does not include all the above-mentioned roles. These roles include advocacy, acting as a broker and acting as an educator. The

participants also mentioned that even though they play these roles, it is done on a minimal scale because they do not have adequate skills to render services that promote environmental justice.

Objective 3

- To explore whether social workers have rendered any services that seek to promote environmental justice.

This objective was addressed in Chapter Three (Sub-section 3.9.2.4). The findings revealed that in line with promoting environmental justice, social workers conduct awareness campaigns in their respective communities. The awareness campaigns or programmes are usually rendered in the form of presentations, which take place in schools, health facilities and even the households of the service users. The participants also conduct home visits during which maintaining a clean and healthy environment is encouraged. Furthermore, the participants related that they had been empowering community members to start their own gardening projects with the aim of promoting sustainable livelihoods in the communities. Rendering these services in line with promoting environmental justice is not without its challenges. The participants highlighted that they did not possess sufficient skills to render services in line with promoting environmental justice. They felt that they needed further training on what promoting environmental justice entails using the social development approach and on ways in which they can help attain it. These solutions are integrated in the recommendations in Section 4.4 under the heading of empowering social workers with education on environmental issues.

Objective 4

- To make recommendations on how social workers can contribute to promoting environmental justice.

This objective was achieved by the recommendations based on the findings of the study that follows in this chapter, Chapter Four (Section 4.4).

4.3 KEY FINDINGS

The key findings of the study are presented as follows:

- The findings of the study indicated that the promotion of environmental justice is understood by social workers as a phenomenon that entails communities caring for the environment, people occupying a clean and healthy environment and people living in harmony with the environment to enable the environment to respond to the needs of the people. Promoting environmental justice should be conducted through the social development approach, which will require all people to be involved in the process of change. It further provides much of the foundation for the attainment of sustainable development.
- The findings of the study revealed that five environmental issues that compromise opportunities for social development and the potential for people to live fully capable, productive lives exist in the five communities of the Tshwane Metro where the participants are deployed, namely air pollution, sewage pipe leakages, overpopulation, littering and flooding.
- The findings of the study demonstrated that the existence of environmental issues in the identified communities have negative health implications not only for the community members, but for the social workers too, resulting in a decrease in productivity levels. Community members usually suffer from illnesses such as tuberculosis, sinusitis and headaches caused by the identified environmental issues.
- The findings of the study showed that job losses or increased unemployment levels can be attributed to the negative implications of environmental issues in communities. This normally occurs when a person falls ill as a result of living or working in an area where there are environmental problems and is forced to work less or leave his/her job entirely if the illness becomes chronic.
- The findings of the study indicated that the negative impacts of environmental issues in communities create dependence on the welfare system, preventing social workers from rendering services from a social development approach. In addition, these services are often short-term in nature, not taking the sustainability factor into consideration.
- The findings of the study demonstrated that even though the core mandate of the participants entailed rendering statutory services, these services are rendered to communities in line with promoting environmental justice in the form of awareness campaigns, home visits and gardening projects.

- The findings of the study revealed that social workers have a number of crucial roles to play in promoting environmental justice, although the participants were of the opinion that they did not possess sufficient skills to play these roles competently. The roles identified by the participants include advocacy, acting as a broker and acting as an educator.
- The findings demonstrated that although the roles of advocacy and educator are played by social workers in promoting environmental justice, this happens on a minimal scale because of lack of sufficient knowledge on what environmental justice ultimately entails and the steps needed to take to attain it.

4.4 CONCLUSIONS

- It can be concluded that promoting environmental justice involves the equal involvement of all people in maintaining a clean and healthy environment to enable it to provide adequately for current as well as future generations. The social development approach as a process of planned social change designed to promote the well-being of the population as a whole, in conjunction with a dynamic process of economic development, plays a crucial role in involving all people in promoting environmental justice and showing how sustainability can improve the ability to achieve environmental justice.
- Because of the existence of environmental issues such as air pollution, sewage pipe leakages, overpopulation, littering and flooding in the five communities of the Tshwane Metro where the participants are deployed, it can be concluded that these realities have a negative impact on people's lives, making it difficult to promote environmental justice as one of the core mandates of the social development approach.
- It was found that the existence of environmental issues in communities has various adverse health effects and that these health implications usually lead to decreased levels of productivity in the workplace for social workers, since they are deployed in these communities and spend most of their time there.
- The results indicated that the existence of environmental issues increases vulnerability to illnesses among service users, social workers and other professionals in the communities. This in turn causes decreased levels of productivity in workplaces, which ultimately results in job losses, as these

illnesses become chronic and people are forced to become more dependent on the welfare system. Poverty then becomes a reality for many families or poverty levels increase in already poor households .

- It can be concluded that most of the social workers are not rendering services from a social development approach because the Department of Social Development offers resources such as food parcels and social grants to service users, especially during times of crisis caused by environmental challenges. The resources often lead to the dependence of service users on the welfare system instead of empowering them to become more resilient to adverse environmental conditions.
- The researcher concludes that the existence of environmental issues that have detrimental effects on community members makes it imperative for social workers to focus not only on rendering statutory services, but also on services that are in line with promoting environmental justice.
- It can be concluded that social workers have a significant role to play in increasing public awareness of the human impacts of environmental change through carrying out their important roles as advocates, brokers and educators. Furthermore, social workers have a role in working in multi-disciplinary teams of academics assessing national frameworks and building multi-disciplinary conceptual clarity.
- The researcher can conclude that lack of confidence and sufficient knowledge of what environmental justice entails creates a barrier for social workers to participate in roles that will ensure the rendering of more sustainable services that aim to promote environmental justice through the social development approach.

4.5. RECOMMENDATIONS

In addressing the role played by social workers in promoting environmental justice at the Tshwane Metro, the researcher recommends the following guidelines:

4.5.1 Environmental justice as a programme within the Department of Social Development

Because of the recent increase in threats to environmental justice that were highlighted in the study, it is imperative for the Department of Social Development to facilitate the development of a programme that focuses on promoting environmental justice in the communities. This programme will be an addition to the already existing programmes that are available at the Department of Social Development, such as children and families, substance abuse and victim empowerment (gender-based violence). The strategy requires a shift in emphasis from only statutory intervention to the promotion of environmental justice as well through awareness and prevention, early intervention and accessible, integrated service delivery at local level. This will ensure that the Department of Social Development will gain a significant presence in the environmental justice field, which will enable it to render a more comprehensive service to the vulnerable groups that were mentioned in the study.

4.5.2 Environmental education as part of the social work curriculum

The findings indicate that social workers in the Tshwane Metro possess insufficient knowledge in the environmental justice field, hence the lack of more active involvement in the promotion of environmental justice. Because of lack of sufficient knowledge in the field, they tend to focus more on the social environment of the communities in which they are deployed. There is a definite need for more training of social workers in this field, especially those who have been in the field for more than five years, in order to introduce them to recent developments in the field. The Department of Social Development can capacitate social workers through registering them for workshops at universities that will educate them on recent developments in the field of environmental justice. Jarvis (2017:28) therefore indicates that social work education must contribute to the existing scholarly research and connect social work's long-established social justice values and commitments with environmental justice issues.

4.5.3 Additions to the social work curriculum

In order to be extensively involved in the field of environmental justice, it is imperative for social work to broaden its definition of the person-in-environment perspective to incorporate the physical and natural environments (Jarvis, 2017:40).

As mentioned previously, it is not enough for social workers to focus only on the social environment of those they serve; focus on the natural environment is equally important in contributing meaningfully to the attainment of the sustainable development goals. The incorporation of the natural environment in the social work curriculum would not only empower social workers to render better services to their communities, but also to start participating in the formulation of policies that aim to promote environmental justice.

4.5.4 Forming multi-disciplinary teams

The environmental realities require social workers to collaborate with other professions in order to formulate policies that will be representative of all community members, since social workers engage mostly with people who are affected by environmental issues. In a multi-disciplinary team, social workers can bring forward ideas of social and environmental justice and stimulate awareness of the range of social support required if societies are to adapt to environmental issues (Alston, 2015:361). They can also learn from other professionals who have already proven themselves in the field of environmental justice.

4.5.5 Further research

There is a need for advanced research on a greater scale to understand how social workers can utilise the identified roles to promote environmental justice through the social development approach. Furthermore, research can be conducted that will focus on the exploration of effective strategies to prevent environmental issues. Lastly, there is a need for research that will explore adaption or resilience of community members to environmental issues.

4.6 CONCLUDING STATEMENT

In the current study, the researcher aimed to explore the role of social workers in promoting environmental justice at the Tshwane Metro to address environmental issues faced by vulnerable communities. The following research question was formulated for the study: What is the role of social workers in promoting environmental justice at the Tshwane Metro? The achievement of the goal and objectives of the study allowed the researcher to answer the research question mentioned. The empirical findings of the study provided information that highlighted

a number of environmental issues that exist in the Tshwane Metro, such as air pollution, sewage pipe leakages, overpopulation, littering and flooding.

These environmental issues affect all residents of the metro; however, those who are vulnerable are affected on a larger scale. The findings also highlighted that social workers do understand what promoting environmental justice entails and in addition play three critical roles in their communities that are in line with promoting environmental justice. The promotion of environmental justice is conducted in the form of awareness campaigns, home visits and gardening projects. However, the scale of this is minimal, as social workers indicated that they need to be empowered further on promoting environment justice through the social development approach.

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APPENDICES

Appendix A

Semi-structured interview Schedule:

the role of social workers in promoting environmental justice at the tshwane metro

Section A: Biographical information

1. Gender
2. Age
3. Race
4. What is your home language?
5. Where do you stay? (Mid-city, suburbs, informal settlement)
6. How long have you been employed as a social worker by the department?
7. Which service point are you deployed at?
8. Which directorate do you work for? (Intake/field/probation/sustainable livelihoods etc).

Section B: Social workers understanding of environmental justice

1. What do you see as environmental justice?
2. What are some of the environmental issues that exist in the communities that you serve?
3. Has it had any type of impact on the community members?
 - If yes, what kind of impact has it had?

Section C: Nature of services rendered by social workers in promoting environmental justice

1. What are the services that you render in the communities that you are deployed at?
2. How do you see these services being extended to environmental justice?
3. Do you think that you possess sufficient skills to render services that promote environmental justice?

If you have, could you tell me about it?

4. Do you think that promoting environmental justice should be a core focus of the social work mandate?
5. Would you recommend for social workers to play a more active role in promoting environmental justice?
 - If yes, what is it in your view that they can do?
 - If no, what are your reasons for disagreeing?

Thank you for your participation



Enquiries: Dr. Sello Mokoena
Tel: (011) 3557855
File no.: 2/9/76

MS NOTHANDO HAPPINESS ZIME NENE

Dear Ms Nothando Happiness Zime Nene

RE: APPLICATION TO CONDUCT RESEARCH IN THE GAUTENG DEPARTMENT OF SOCIAL DEVELOPMENT


Thank you for your application to conduct research within the Gauteng Department of Social Development.

Your application on the research on "**The Role of Social Workers in Promoting Environmental Justice at the Tshwane Metro**" has been considered and approved for support by the Department as it was found to be beneficial to the Department's vision and mission. The approval is subject to the Department's terms and conditions as endorsed on the 03rd of November 2017. In order for the department to learn and draw from the findings and recommendations of your study, please note that you are requested to provide the department with a copy of your dissertation/thesis once your study has been completed.

May I take this opportunity to wish you well on the journey you are about to embark on.

We look forward to a value adding research and a fruitful co-operation.

With thanks


PP
Mr M MAMPURU
Acting Head of Department
Date: 14/11/2017



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Humanities
Research Ethics Committee

19 March 2018

Dear Ms Nene

Project: The role of social workers in promoting environmental justice at the Tshwane Metro
Researcher: NHZ Nene
Supervisor: Dr P Gutura
Department: Social Work and Criminology
Reference number: 126097223 (GW20180215HS)

Thank you for your response to the Committee's letter of 15 March 2018.

I have pleasure in informing you that the Research Ethics Committee formally **approved** the above study at an *ad hoc* meeting held on 19 March 2018. Data collection may therefore commence.

Please note that this approval is based on the assumption that the research will be carried out along the lines laid out in the proposal. Should your actual research depart significantly from the proposed research, it will be necessary to apply for a new research approval and ethical clearance.

We wish you success with the project.

Sincerely

Prof Maxi Schoeman
Deputy Dean: Postgraduate and Research Ethics
Faculty of Humanities
UNIVERSITY OF PRETORIA
e-mail: tracey.andrew@up.ac.za

cc: Dr P Gutura (Supervisor)
Prof A Lombard (HoD)

Research Ethics Committee Members: Prof MME Schoeman (Deputy Dean); Prof RL Harris; Dr I. Rickard; Dr K. Booyens; Dr A-M de Beer; Ms A des Santos; Dr R Fassek; Ms KT Govender; Dr E Johnson; Dr W Kelleher; Mr A. Mohamed; Dr C Putsongile; Dr D. Reynard; Dr M. Saor; Prof C. Taljard; Prof V. Thibet; Ms D. Tsebe; Ms D. Makalapa

Researcher: Nothando Nene
MSW (Social Development & Policy)

Contact details: Cell: 072 998 7076
Office: 012 846 3500

Participant's name: _____

INFORMED CONSENT

- 1. Title of the study:** The role of social workers in promoting environmental justice at the Tshwane Metro.
- 2. Purpose of the study:** The goal of the study is to explore and describe the role of social workers in promoting environmental justice at the Tshwane Metro.
- 3. Procedures:** I willingly responded to an invitation to form part of this study. I expect to be interviewed one-on-one by the researcher where after the information gathered will be transcribed, documented and analysed. I am aware that the interview will take approximately one hour.
- 4. Risks and procedures:** There are no physical risks in participating in the study, although I may experience emotional distress when sharing my perceptions and experiences with the researcher. I am aware that further counselling, if I wish to do so, will be provided by an intake social worker, at the Department of Social Development.
- 5. Benefits:** I understand that there are no known direct benefits for me participating in this research study. The results of the study will, however, assist the researcher to gain better understanding regarding the role of social workers in promoting environmental justice.
- 6. Participant's rights:** I acknowledge that participation is voluntary and that I may withdraw from participating in the study at any time without negative consequences.

7. Confidentiality: In order to record accurately what is said during the interview, the researcher will make use of an audio recorder. The recording will be listened to only by the researcher (Nothando Nene). I understand that the data obtained will be kept confidential unless I ask that it be released. The data obtained from me will be destroyed if I decide to withdraw from this study. The results of this study may be published in the researcher's final research document, professional journals or presented at professional conferences, but my records or identity will not be revealed unless required by law.

8. Right of access to researcher: If I have any questions or concerns, I can call Nothando Nene on 072 998 7076 or send an email to Nothando.Nene@gauteng.gov.za from Mondays to Fridays during working hours (08:00-16:00). I will be able to contact the researcher by means of email or phone should I seek clarification on any issue or if doubts should arise, whether it is before or after the study.

I understand my rights as a research participant and I voluntarily consent to participation in this study. I understand what the study is about, how and why it is being done.

I am aware that, in accordance with University of Pretoria policy, the data will be archived for a period of 15 years in the Department of Social Work and Criminology.

I understand that data obtained from this study will be used in other reports and publications for future research.

Signed at.....on this.....day of.....20.....

.....

Signature of Participant

.....

Signature of Researcher