

Chapter 2: Constitutional and legislative obligations relating to disasters in water catchment areas

2.1 Introduction

In this chapter, the first research question formulated as a research objective is addressed. Namely, identifying and conceptualising the Constitutional and legislative obligations in respect of disaster risk management in general, and those governing the disaster risk management in the Tlokwe Local Municipality catchment area.

The first aim of this chapter is to identify the constitutional, legislative, regulatory and policy obligations of the Tlokwe Local Municipality in respect of disaster risk management and disaster management within a water catchment area. The second aim is to identify, constitutional, legislative, regulatory and policy instruments available to Tlokwe Local Municipality, to assist with reducing the risk of disaster and to assist with the management of disaster in the Tlokwe Local Municipality area.

Although the Constitution (Act 108 of 1996) only refers directly to disasters in section 37 under the state of emergency and in Schedule 4A as a concurrent National and Provincial Legislative competence. Nevertheless, section 41(b) it requires all spheres of governments to secure the well-being of its citizens and in section 7(2) it requires the state to respect, promote and fulfil the rights in the Bill of Rights. The latter implying that Tlokwe Local Municipal Municipality as an organ of state and one of the three spheres of government has constitutional obligations as well as legislative obligations for the communities and environment within its boundaries. In this study the link between reduction of the risk of disasters, sustainable development strategies (UNISDR, 2005:4; UNISDR, 2004:2), the millennium development goals (UNISDR, 2010:Online) which may assist, directly and/or indirectly in the realisation of Human Rights, are identified. Therefore, there is a need to consider the management of the risk of potential disaster in development planning so as to promote sustainable development, thereby realising the rights enshrined in the Bill of Rights as a means to significantly reduce the risk of potential disasters or at least minimise the impact thereof (UNISDR, 2004:18). The latter is conceptualised in Figure 3 below..

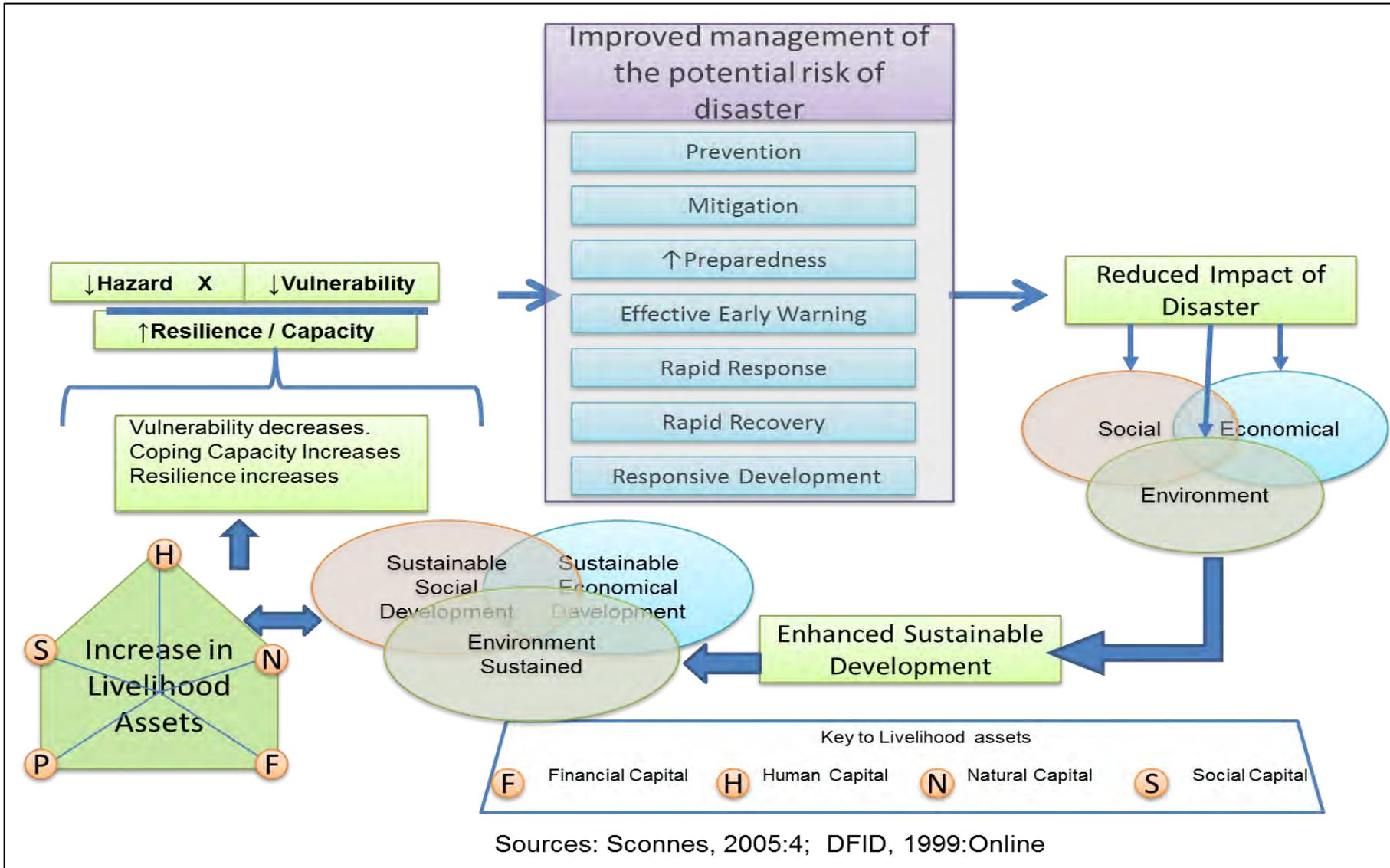


Figure 3: The link between effective management of the risk of disaster and sustainable development

For the purpose of this chapter, the focus will be on the existing, policies, legislation, regulations, and guidelines that can assist with reducing hazards, decreasing vulnerability and increasing resilience that could assist in reducing the potential risks of disasters.

In this chapter, firstly, the possible implication of the failure to manage the risk of the disaster is discussed. This highlights the possible legislative and developmental implications that may arise as the result of ineffective disaster management.

Secondly, South Africa as a constitutional democracy, the implications thereof and the relevant obligations outlined in the Bill of Rights are discussed. This section highlights the Constitutional and legislative obligations that are directly and/or indirectly related to Disaster Risk Management, Disaster Management, the management of a water catchment area and the management of water resources.

Thirdly, legislative and other measures in respect of disaster management, with specific reference to the Disaster Management (Act 57 of 2002) are discussed.

Finally, the summary provides an indication of the Constitutional and legislative factors that should be considered in the conceptualisation of the spatial information system.

2.2 Possible implications of failure to manage the risk of a disaster

Arguably, the objective of disaster risk management is to avoid, mitigate, or manage the impact of potential hazards. Thereby avoiding or reducing the potential negative social, economic and environmental impacts of a disaster, or at least ensuring optimal disaster recovery (See Figure: 3). According to Twigg (2004:9), disasters resulting from hazards can have direct effects and indirect consequences. Direct effects include deaths, injury, damage to property and housings, loss of livestock and damage and destruction of local infrastructure. Indirect consequences include rising unemployment and rising food prices. For example, in South Africa it is estimated that 104 lives were lost during the Laingsburg flood in 1981(SAWDIS, 2009; SAWDIS, 1981);in the Merrispsruit disaster 17 lives were lost and the direct costs were estimated at R45 million, when the Merriesspruit slime dam wall burst in

1986 (Carlin, 1994:Online); and 173 lives were lost during 1986 Pietermaritzburg floods. All of the above are examples of loss of lives and cost that could have been prevented or limited through better Disaster Risk Management (South Africa's Green Paper on Disaster Management, 1998:2). In most instances it is the poorer communities (indigents) that are most severely impacted by disaster (United Nations, 2010:Online; UNISDR, 2010:14; UNISDR, 2004:42; Van Niekerk *et al.*, 2002:10) and it is therefore often the same group whose right to quality life and dignity that the Constitution (Act 108/1996) obliges the State which includes the Tlokwe Local Municipality to realise, that has been compromised. The additional resources utilized to assist in disaster response and recovery are resources that could rather have been better utilized to enhance sustainable development and the realisation of the Millennium Development Goals (MDG) (DFID, 2004:2; UNDP, 2004:17; Pelling, *et al.*, 2002:283-285).

Therefore, in the context of an avoidable disaster or disaster where the impact should have been minimal, it may be concluded that the possibility exists that an individual(s) and/or an organ, institution, regulator and/or enforcer, did not execute his/her/its function effectively, or there was negligence on the part of an individual(s) or/and organ, institution, regulator and enforcer (Van Niekerk, *et al.*, 2002). The significance of the latter is that it applies to the Tlokwe Local Municipality in its role as organisation, regulator and enforce.

For instance, in England and Wales the Corporate Mans Slaughter and Corporate Homicide Act of 2007(Herman, 2010:Online; United Kingdom, 2007:Online), will hold an organisation (including certain Public authorities) liable for manslaughter if there was a gross breach of the relevant duty of care and a minimum fine of £500 000 can be imposed (Herman, 2010:Online). While a senior employee (directors) can also be charged for the offences of gross negligence under the Health and Safety Works Act of 1974 (United Kingdom, 1974:Online) if a person was to die as the result of negligence in respect of the health and safety code. This example of implementation of harsh sanctions is an effective manner of legislative implementation and enforcing in the field of health and safety, which could contribute to the reduction of risk associated with commercial, industrial and mining activities. It could be equally argued that in South Africa where a lack of legislation,

regulations or bylaws are negating the effective management of the risk of potential disasters for example poor building standards, lack of effective sanitation works, the necessary legislation be gazetted, implemented and enforced. Where existing legislation, policy, guidelines and procedures do exist, they should be effectively implemented and enforced, for, example the requirement for an Environmental Impact Study.

In the case of South Africa, the making of legislation (legislative) and executing of the law (executive powers) and the functions allocated to the different spheres of government as well as the judicial functions are determined by the Constitution (Act 108 of 1996). These obligations, functions and responsibilities prescribed by the Constitution are the result of South Africa being a constitutional democracy (Act 108 of 1996).

South Africa as a constitutional democracy (Act 108 of 1996) and the implications thereof on the different spheres of government and organs of state are discussed in the next section. This discussion is necessitated in that all spheres of government are obliged to comply with these constitutional obligations, and that no law, act or action may be contradictory to prescripts of the Constitution (Act 108 of 1996) in South Africa.

2.3 South Africa as a Constitutional Democracy and the obligations of the organs of state

2.3.1 South Africa as a Constitutional Democracy and the implications thereof

With the signing of the Constitution (Act 108 of 1996) into law on the 10 December 1996, a constitutional democracy came into effect in South Africa on 4 February 1997. This had been preceded by the Conference for a Democratic South Africa (CODESA), which was responsible for drafting the interim Constitution, which included a set of 34 binding Constitutional principles (Schedule 4 of the Interim Constitution Act 200 of 1993) on 20 December 1991. Principles were adopted by the Tricameral Parliament on 22 December 1993, and remained in force until the final constitution was adopted by the Constitutional Assembly (parliament elected in 1994) and certified by the Constitutional Court on 11 October 1996. This was after

the first certification process failed in September 1996 (Currie & De Waal, 2005:3-9). The purpose of the certification process was to ensure that the final constitution conformed to the 34 Constitutional Principles (Schedule 4 Interim Constitution of South Africa Act 200 of 1993) agreed upon by the Tricameral Parliament. The significance of the certification process is that a court should approach the relevant meaning of the relevant provision on the basis of the meaning assigned to it by the Constitutional Court in the certification process as its correct interpretation, and should not depart from it except in the most compelling circumstance.

The Constitution is based on significant principles that define the new constitutional order; that influence the interpretation of many of the provisions of the Constitution and Bill of Rights; that inform the way the legislation is drafted by the legislature and interpreted by the courts and the way the courts develop common law. These basic principles are constitutionalism, the rule of law, democracy and accountability, separation of power, check and balances, co-operative governance and devolution of power (Currie & De Waal, 2005:7). As South Africa is a constitutional democracy and all spheres of Government and People in South Africa function within this constitutional democracy, a concise description of the most important principles of a constitutional democracy is provided below.

2.3.1.1 Constitutionalism

The implication of the Constitution of South Africa (Act 108 of 1996) is firstly constitutionalism. That entails that the government powers are derived and limited by a written constitution, with the aim of providing a government with enough power to govern, while preventing the same from being oppressive (Currie & De Waal, 2005:8). The Constitution (Act 108 of 1996) in the Republic of South Africa is the Supreme Law (Section 2 Act 108 of 1996). This implies that any law or conduct that is inconsistent with it is invalid, and any obligation imposed by the Constitution must be fulfilled, and its obligations are binding on all the branches of the state, and all policy, laws, and regulations. Therefore, Section 172.1 of Act 108 of 1996 provides that any court deciding on a constitutional matter that is within its power must declare any law or conduct that is inconsistent with the Constitution invalid to the extent of the inconsistency. Section 165.5 (Act 108 of 1996) provides that any order or decision issued by a court binds all persons and organs of states to which it

applies. Based on the latter the significance of this provision is that all spheres of government, all persons, including for example municipalities, mining houses and individuals, are bound by court orders or decisions. The Bill of Rights binds the legislature, the executive, the judiciary and all Organs of State (Section 8.1 Act 108 of 1996). The provision of the Bill of Rights is also binding on a natural or a juristic person if, and to the extent that it is applicable, taking into account the nature of the right and any duty imposed by the right (Section 8.2 Act 108 of 1996).

In the case of the Government of South Africa and Others v Grootboom and Others (2001(1) SA 46(CC)), the Constitutional Court in respect of the rights enshrined in Section 26 (Right to Housing) and Section 28 (Right of Child), the court indicated that despite a lack of resources, these are rights that the Constitution obliges the state to give effect to, and this is an obligation that a court, in appropriate circumstances, must enforce. Therefore based on this case it can be assumed that in respect of Constitution's obligations, these obligations are not only textual, but that they are judicial and can be enforced by the Constitutional Court or judiciary. This will therefore apply to the Tlokwe Local Municipality in respect of its responsibility of realising its constitutional obligations.

In accordance with section 231(Act 108 of 1996), any international agreement entered into by the Republic that is consistent with the Constitution, binds the Republic. When interpreting any legislation in accordance with section 233(Act 108 of 1996), every court must prefer reasonable interpretation of the legislation that is consistent with international law over any alternative that is inconsistent with international law, it should be noted that this was considered in the certification process and the Grootboom case.

Base on the above it can be inferred that the significance of this principle in respect of managing the potential risk of disasters is that it implies that the South African government (including all spheres of government and all organs of state) is obliged to adhere to its international obligations, commitments and undertakings. This includes for example, RAMSAR,1994 and UNESCO, 1994 (convention on wetlands) ; UNCCD, 1994 (Convention to combat desertification's); Kyoto Protocol, 1998 (United Nations, 1998); UNFCCC, 1992 (United Nations Framework Convention for Climate Change); Millennium Development Goals, (an agreement

that 189 world leaders made to end poverty at a World Summit in 2000 by 2015), (UNMC, 2013); Hyogo Protocol and the Hyogo Framework for action 2005-2015(2011), (International Strategy for Disaster Reduction)(UNISDR, 2007; UNISDR, 2005); Montreal Protocol, 2007, (UNEP, 2000) and UNEP, 2009 (Protocol on substances that can deplete the ozone layer); and Stockholm Convention on Persistent Organic Pollutants(POPS, 20011; POPs, 2009; POPs, 2008; UN,1994) .

Section 237 (Act 108 of 1996) requires that constitutional obligations be performed diligently and without delay. As indicated with the case of the Republic of South Africa and Others versus Grootboom and Others (2001(1) SA 46(CC)), organs of state are expected to indicate the legislative and other measures considering the available resource that they intend to utilise to realise the rights and must be able to demonstrate and indicate the reasonableness of their progress in the realisation of the right.

2.3.1.2 Rule of Law

The Constitution requires the rule of law; this implies that the various organs of state as is expected of any other must obey the law, and there must be law authorising the actions of the state (Currie & De Waal, 2005:11). It is advisable that in the case of exercising of public powers by the executive and other functionaries this should not be arbitrary. To ensure that acts are not arbitrary decisions must be rationally related to the purpose for which the power was given (Currie & De Waal, 2005:11).

The significance for Disaster Risk Management is that all legislation, except where an organ of state or spheres of government are expressly excluded from the certain precepts' of the legislation, must abide to the precepts of the legislation that they are not exempted from. In the case of the Tlokwe Local Municipality it will imply that they must abide by for example to existing legislation in respect of, occupational health and safety, water, the environment and disaster management.

2.3.1.3 Democracy and Accountability

The Constitution requires democracy and accountability. In accordance, Section 1 (Act 108 of 1996) recognises that the Republic of South Africa is one sovereign

democratic state, and in Section 1(d) (Act 108 of 1996) recognises the importance of regular elections and a multi-party system of democratic government, to ensure accountability, responsiveness and openness. The Constitution provides for representative, participatory and direct democracy. The principle of participatory democracy allows citizens to lobby or pressurise government to give effect to their rights (Currie & De Waal 2005:107). The Constitution in Section 28 (Act 108 of 1996) makes provision for the enforcement of the rights by anyone acting in the public interest (Section 28.d Act 108 of 1996) or association acting in the interest of its member (Section 28.e Act 108 of 1996).

The significance of this principle is that interest groups, forums, and communities can use their combined resources to alert authorities to activities that could possibly infringe on the rights of the groups or others, and enforce authorities to take the necessary action. These include activities that could increase the likelihood of potential hazards and disasters and that could influence sustainable development. Examples of interest groups include the Federation for a Sustainable Environment (FSE), 2013 and FSE, 2011 who has been a proactive public voice concerning many environmental issues in respect of the pollution originating from mining. The Centre For Environmental Rights (2013) which has become active in advancing environmental rights in South Africa, and EarthLife Africa JHB (2013) who seeks a better life for all without exploiting other people or degrading their environment.

The Constitution itself makes provision for accountability. In Section 32 (Act 108 of 1996) it provides for the right to access to information held by the state; Section 4.1.(c) (Act 108 of 1996) requires all spheres of government to provide effective, transparent, accountable and coherent government. Section 152.1 (b) (Act 108 of 1996) requires, as one of the objectives of Local Government, to provide democratic and accountable government for local communities. Section 195.1(f) & 195.1 (g) requires public administration to be accountable, and to ensure that transparency is fostered by providing the public with timely, accessible and accurate information. The “Chapter 9 (Act 108 of 1996) State Institutions” which were established to support constitutional democracy, are independent and are subject only to the Constitution and the law. These institutions can monitor adherence to constitutional obligations.

Based on the it can be inferred that the significance of this principle is that legislative processes, for example The Public Finance Management Act 1 of 1999, ensure financial and performance accountability at National and Provincial level; The Promotion of Access to Information Act 2 of 2002 allows access to certain public information held by the state and private information that is required for the protection of an individual's right; Municipal Finance Management Act 56 of 2003 ensures financial and performance accountability at Local Government Sphere and Public Audit Act 25 of 2004 allows for the independent audit of all spheres of government. Outside the legal framework, both the printed and broadcast media are important mediums through which issues of public concern and public accountability can be raised. The importance of the above is that these measures and means must be considered and can be effectively utilised by local communities, stakeholders, concerned bodies, etc. when existing structures fail to provide the services, to address sustainable development and to reduce the potential risk of hazards that could increase the likelihood of the occurrence of a disaster.

2.3.1.4 Separation of Powers

The Constitution also provides for separation of powers and checks and balances. The three functions of government legislative (making law), executive (executing the law) and judicial (resolving disputes) are separated and performed by different institutions. The legislative authority in the National sphere of government is vested in the Parliament (Chapter 4 Section 43 & 44 (Act 108 of 1996)), while at the Provincial sphere of government it is in the Provincial Legislature (Chapter 6 Section 104(Act 108 of 1996)). The executive authority in the National sphere of government is vested in the President (Chapter 5 (Act 108 of 1996)), and at the Provincial sphere of government is in the Provincial Premier (Chapter 4 Section 125 - 141(Act 108 of 1996)). At the local sphere of government, both the legislative and executive authority is vested in the Municipal Council (Chapter 7(Act 108 of 1996)). The judicial authority is vested in the judiciary (Chapter 8(Act 108 of 1996)) (Currie & De Waal, 2005:18-22).

The significance of this principle for the Tlokwe Local Municipality is that the executive and legislative authority of the Tlokwe Local Municipality is vested in its

Municipal Council (Section 151(20) (Act 108 of 1996)). The objectives of the Local Municipality include: providing democratic and accountable government for local communities (Section 152(1)(a) (Act 108 of 1996)); ensuring provisioning of services to communities in sustainable manner (Section 152(1)(b) (Act 108 of 1996)); promoting economic and social development (Section 152(1)(c) (Act 108 of 1996)); promoting a safe and healthy environment (Section 152(1)(d) (Act 108 of 1996)); and encouraging community and community organisation involvement in all matters of local development (Section 152(1)(e)). The Municipality has executive authority in respect of the matters listed in Part B of schedules 4 and 5 (see next paragraph), and any other matters assigned by Provincial Legislature or National Parliament that the former and latter are authorised to assign. The Municipality may make and administer by-laws that are not in conflict with any Provincial or National legislation and the Constitution to enable the effective administration of the assigned matters (Section 156(Act 108 of 1996)).

2.3.1.5 Cooperative governance and devolution of powers

Finally, the Constitution allows for cooperative governance and devolution of powers. Chapter 3 Section 41 (Act 108 of 1996) requires all spheres of government to strive to adhere to the principle of cooperative government. The functional levels of the different spheres of government are also constitutionally determined. That is national, provincial (Schedule 4 and 5 and Section 125 Act (108 of 1996)) and the local sphere of government (Schedule 4 and Section 155 Act (108 of 1996)).

The functions constitutionally determined which are related to the management of the potential risk of disasters (In Schedule 4 and 5 Act 108 of 1996) are outlined in tables 1 and 2 of Appendix B.

When considering the above, the Constitution is therefore the Supreme Law that lays the foundation for a democratic and open society; is based on democratic values, social justice and fundamental human rights; with the aim of improving the quality of the lives of all citizens (and it should be noted that according to Section 7(1), rights are not only of citizens in South Africa but all persons in South Africa); providing the framework within which all spheres of government and all organs of state must function to realise the constitutional obligations, including the fundamental rights enshrined therein. Therefore, the constitutional obligations and

the realisation and protection of the rights enshrined in the Constitution must be considered in any system or initiative, for example a system that would prevent, mitigate or reduce the risk of disaster, or where the lack of an effective system negatively impacts on sustainable social, economic and environmental development (UNCSD RIO, 2012; Shirkhodai, 2008:18 -19; Nishikawa, 2003:13-20).

The relationships between the realisation of these rights, the Millennium Development Goals and the Disaster Risk Management are discussed in the next section.

2.3.2 The Bill of Rights

2.3.2.1 The Bill of Rights, its link to the Millennium Development Goals, and Disaster Risk Reduction

In accordance with the South African Constitution (Section 7(2) (Act 108 of 1996)) the Bill of Rights is the cornerstone of the “South African Democracy”; it enshrines the rights of all people in South Africa, and affirms the democratic values of human dignity, equality and freedom. These are rights that all organs and all levels of the state must respect, protect and fulfil (Section 7(3) (Act 108 of 1996)). Significantly, a number of these rights are directly or indirectly linked to the United Nations Millennium Development Goals and Targets that was a commitment signed by 189 countries and 149 Heads of States in September 2000. As previously discussed, there is a link between disasters, effective Disaster Risk Management, sustainable development (focused on maintaining economic sustainability sustainable environmental integrity (see Figure 3), as an improvement in sustainability, reduces the vulnerability risk and increase resilience, which in turn will reduce the risk of disasters. The achievement of the Millennium Development Goals and targets in turn reduces vulnerability and increases resilience. Table 3, Appendix B, Illustrates the link between the Millennium Development Goals (MDG) and the Bill of Rights.

From Table 3: Appendix B, it becomes clear that the process of the effective management of the potential risks of hazards, to reduce the potential of disaster, the reduction of disasters or impact thereof will assist in sustainable development and facilitate in the realisation of the Constitutional rights and the MDGs.

Importantly, the realisation of these rights and goals will in its turn reduce vulnerability, increase resilience and coping capacity, and thereby assist in reducing disasters and/or the impact thereof. The realisation of the rights that could have the greatest impact on sustainable development, increasing resilience and livelihood capital include the rights that are listed below.

2.3.2.2 Rights in the Bill of Rights that could be linked to disaster management and sustainable development

This section limits its focus to a few of the Rights enshrined in the Constitution to demonstrate the importance thereof in disaster management.

2.3.2.2.1 Life (section 11 (Act 108 1996))

According to section 11(Act 108 of 1996) everyone has the right to life. This implies that all spheres of government including local municipalities are obliged to do all that is possible to prevent the loss of human life. This will arguably require of local municipalities to take all the necessary precautions to avoid or reduce the impact of a disaster.

2.3.2.2.2 Environment (section 24(Act 108 of 1996))

According the section 24 of the Constitution (Act 108 of 1996), everyone has a right to an environment that is not harmful to their health or well-being.

According to section 24 (b) (Act 108 of 1996), everyone has a right to have the environment protected, for the benefit of present and future generations. The protection of the environment must be ensured through legislative and other measures that (Section 24(b)(i)) prevent pollution and ecological degradation; (Section 24 (b)(ii)) promotes conservation and Section 24 ((b)(iii)) secure ecologically sustainable development and use of natural resource while promoting justifiable economic and social development.

The implications are that all government actions and legislation as well as an individual's conduct that impact on the environment must now comply to the Constitutional right to an environment as implied in section 24 (Act 108 of 1996). The Constitution in the case of this right does not only make provision for the protection of the right for the present population, but for the future population, and

allows for resourced interest groups to effect action against individuals, groups, industry, and any judicial person that is causing environmental degradation as well as the organs of state that fail to comply with the legal obligations (Currie & De Waal, 2005: 522-526). This right is directly linked with one of the pillars of sustainable development namely the protection of the environment.

2.3.2.2.3 Health care, food water and social security (Section 27 (Act 108 of 1996))

According to section 27 of the Constitution (Act 108 of 1996) everyone has the right to have access to: (Section 27(1)(a)) health care service, including reproductive health care services; (Section 27(1)(b)) *sufficient* food and water; and (Section 27(1)(c)) social security.

Section 27(2) makes provision for the state in providing legislative and other means realising this right, in that it states (Section 27(2)) “The state must take reasonable legislative and other measures within its available resources, to achieve the progressive realisation of this right.”

Section 27(1) provides that no one may be refused emergency medical treatment.

The implication of this right is that if it is fully realised, arguably the resilience and coping capacity of the vulnerable will be increased thereby reducing the impact of a disaster.

2.3.2.2.4 Children (Section 28 (Act 108 of 1996))

According to section 28(2), a child’s best interests are of paramount importance in every matter concerning the child, where the child, according to the South African Constitution, (Section 28(1)) is recognised as a person under the age of 18 years.

The Constitution (Act 108 of 1996) provides for additional children’s rights; these include the right to basic nutrition, shelter, basic health care services and social services (Section 28(1)(c)); and the right to be protected from maltreatment, neglect, abuse or degradation (Section 28(1)(d)).

The implication of this right is that it emphasises the need for all spheres of government to consider the basic needs of the child. Arguably, if the basic needs of the child are taken into consideration with any development and planning, this will

reduce the susceptibility of the child to potential hazards (drowning, fires, etc.) and resulting disasters.

In South Africa all spheres of government are therefore obliged to ensure the social and economic development of its citizens while preserving the ecosystem for future generations. This approach that the Constitution enforces is supportive of sustainable development. Arguably if these rights are achieved it will increase the livelihood capital of the most vulnerable, protect the environment from degradation and stimulate economic development that will contribute to the necessary infrastructure that could reduce the risk of disasters or the impact of disasters (UNCSD RIO, 2012:Online; Shirkhodai, 2008:18 -19; Nishikawa, 2003:13-20).

The Constitution obliges the government to realize the constitutional rights and, where the Constitution provides, to progressively provide for the realization of the rights. All spheres of government are expected to execute their constitutional obligations; this could include legislative, policy, regulatory and administrative measures. The legislative and other measures in respect of managing disaster, water resource and the environment are discussed below.

2.4. Legislative and other measures in respect of disaster management in general and with specific reference to the Disaster Management Act (57 of 2002)

2.4.1 Disaster Management Act 57 of 2002

The establishment of the Disaster Management Act 57 of 2002 in Figure 4 was preceded by a general discussion paper, the Green Paper on Disaster Management in 1998, and the White Paper on Disaster Management in 1999 (Notice 23 of 1999). The White Paper was important in that it is aligned with the international thinking prominent in the “United Nations International Decade for National Disaster Reduction”. It provided a paradigm shift from a reactive approach to a more proactive approach to disaster management, recognising the link between the impacts of disasters and sustainable development. The White Paper in highlighting the Constitutional obligations (Section 1(2) of Notice 23 of 1999), in respect of the Bill of Rights (Section 9, 10, 11, 14, 26, 27 & 28 (Act 108 of 1996)), in

respect of 4(A) Act 108 of 1996, and other constitutional obligations (Section 41(1)(b) and 152(1)(d) (Act 108 of 1996)) recognises the state's obligation in respect of disaster management. The principles on which the white paper is based (Section 1.2 (Notice 23 of 1999)) are firstly, the need to create an enabling environment for disaster management; secondly, the need to promote proactive disaster management through risk reduction programmes; thirdly, the need for coordinated, effective and efficient management of disasters and the consequences' thereof; fourthly, the need to promote, integrate and coordinate disaster management partnerships with different stakeholders and through cooperative relations between all spheres of government; fifthly, the need to ensure that adequate financial arrangements are provided for, and lastly, the need to promote Disaster Management training and community awareness.

The Disaster Management Act 57 of 2002, followed the White Paper and was promulgated in 2002 and in accordance with proclamation 26228 of 2004 commenced on 1 April 2004. The Act 57 of 2002 places statutory responsibility in respect of disaster management on every organ of state in each of the spheres of government. The act provides for an integrated and coordinated Disaster Management policy and focuses on preventing or reducing the risk of disaster, mitigating the severity of disasters, emergency preparedness, rapid and effective response and post – disaster recovery. It can be argued that the Act (Act 57 of 2002) makes provision for the following main themes.

2.4.1.1 The recognition of other national legislation aimed at reducing the risk of disaster, and addressing the consequences of occurrences of disaster in nature

The recognition of other national legislation aimed at reducing the risk of disaster, and addressing the consequences of occurrences of such disasters in the environment (Section 2(1)(b)(i)) which are not included in the Act (Act 57 of 2002) must be taken into consideration. This includes for example, legislation and policy in respect of the environment and water resources. Nevertheless, the Disaster Management Act 57 of 2002, section 2(2) allows for the Minister after consultation with the cabinet member responsible for the administration of the legislation referred to in section 2(1)(b)(i), to issue guidelines on the application of the section

of the legislation. The legislation and measures that relate to disaster risk management include legislation concerned with management of the environment and the water resources (that are discussed as part of this section), and other legislation that can affect the effectiveness of disaster risk and disaster.

2.4.1.2 The act provides for the making of regulations that are not inconsistent with the act.

The act provides for the making of regulations that are not inconsistent with the act (Section 59(1) (Act 57 of 2002)), that may be prescribed in terms of the act (Section 59(1)(a)(i) (Act 57 of 2002)), or that may be necessary for the effective implementing of the objectives of the act (Section 59(1)(b)(ii)(Act 52 of 2002)). This includes regulations that are required for disaster management volunteers, according to section 58(5) of the act (Act 57 of 2002). It is according to this provision that the Disaster Management Regulations (R1689 of 2005) was published. For example, regulations provided for the establishment of volunteer units in terms of chapter 7 of the Act 57 of 2002 and the records that must be kept of the disaster management plan in terms of section 29 and 43 of Act 57 of 2002.

2.4.1.3 The establishment of a framework for Disaster Risk Management at all spheres of government

Sections 7 and 8 of the Act 57 of 2002 provide for drafting the contents of a Disaster Management Framework (DMF) for Disaster Risk Management at all spheres of government. Provision is made for the National Disaster Management Framework (NDMF) for national sphere (Section 6 & 7 of Act 57 of 2002), the Provincial Disaster Management Framework (PDMF) for the provincial sphere (Section 28 of Act 57 of 2002) and the Municipal Disaster Management Framework (MDMF) for the municipal local government sphere (Section 42 of Act 57 of 2002). The policy framework for Disaster Risk Management in South Africa (Notice no 54 of 2005) that provides particulars for the national disaster framework was issued in 2005 in accordance with Section 6(2) of Act 57 of 2002. The policy framework (Notice No 654 of 2005) makes provision for a disaster management framework based on four Key Performance Areas and three enablers. The first Key Performance Area (KPA) is integrated institutional capacity for Disaster Risk

Management. The second KPA is Disaster Risk Assessment. The third KPA is Disaster Risk Reduction and the fourth KPA is response and recovery. The first enabler is information management and communication. The second enabler is education, training, public awareness and research. The third enabler is funding arrangements for Disaster Risk Management.

The significance of the MDMF in respect of the Tlokwe Local Municipality includes the following:

The Tlokwe Local Municipality, its wards, all relevant municipal departments for example, fire brigade, emergency services, volunteers and other stakeholders form part of the integrated institutional capacity for Disaster Risk Management referred to in the first KPA. (Notice 654 of 2005:1, 15). The Tlokwe Local Municipality itself is a partner on the Dr Kenneth Kaunda District Municipality Disaster Management Committee (MDMCE), and serves on the Municipality Disaster Management Advisory Forum (Section 52(c) Act 57 of 2002).

All local municipalities including the Tlokwe Local Municipality are expected to provide Integrated Development Plans (IDT) including a disaster management plan for the local municipality (Section 53(1)(d) Act 57 of 2002; Chapter 4 of Act 32 of 2000); this is the third KPA of the policy framework (Notice 654 of 2005:39-58). These plans require of the Tlokwe Local Municipality to anticipate the type of disasters (Section 53(2)(b) Act 57 of 2002), to reduce the vulnerability of the disaster prone (Section 53(2)(c) Act 57 of 2002), and to identify areas, communities and households at risk (Section 53(2)(e) Act 57 of 2002). This will require the Tlokwe Local Municipality to perform a Disaster Risk Assessment, this is the second KPA of the policy framework as outlined in the policy framework (Notice 654 of 2005: 25-29).

2.4.1.4 The establishment of Disaster Management Centres at all three spheres of government

The Act provides for the establishment of disaster management centres at each sphere of government with the appointment of a Head to manage each of the centres. In this study the focus is only on the municipal sphere.

The Municipal Disaster Management Centre (MDMC) is established after consultation with the local municipalities. The Tlokwe Local Municipality, which is one of the three local municipalities in the Dr. Kenneth Kaunda District, has been involved, in the consultation process, in accordance with section 43 of the Act 57 of 2002. The administrative functions of the MDMC are in accordance with section 45 (appointment of and the duties a Head of the MDMC), section 46 (provide assistance to the National and Provincial disaster management centres) and section 44 (powers and duties) of the Act 57 of 2002. In the case of a district municipality, the MDMC according to section 44(1)(b), must promote an integrated and coordinated approach to disaster management in the municipal area, with special emphasis on prevention and mitigation, by departments and other internal units within the local municipalities in the area of the district municipalities, and all municipal entities operating in the municipal area and other role players involved in disaster management in the municipal area.

2.4.1.5 Procedures for the declarations of states of disaster at all spheres of government and the responsibilities for such disasters

The act provides for the circumstances and procedures for the declarations of states of disaster at all spheres of government and the responsibilities for such disasters. The circumstances and procedures for the declaration of national state of disaster are outlined in sections 27(1), 27(2), 27(3), 27(4) and 27(5) of the Act (57 of 2002). The responsibilities for national disasters are outlined in section 26 of the Act (Act 57 of 2002).

It should be noted that even though a national disaster may be declared, it does not preclude a provincial or municipal organ of state from providing assistance to the National Executive (Section 26(3) (Act 57 of 2002)). The circumstances and procedures for the declaration of provincial state of disaster are outlined in sections 41(1), 41(2), 42(3), 42(4) & 40(5) of the Act (57 of 2002). The responsibilities for provincial disaster are outlined in section 40 of the Act (Act 57 of 2002). It should be noted that even though a provincial disaster may be declared, it does not preclude a national or municipal organ of state from providing assistance to the provincial executive (Section 40(3) (Act 57 of 2002)).

The circumstances and procedures for the declaration of local state of disaster are outlined in sections 55(1), 55(2), 55(3), 55(4) and 55(5) of the Act (57 of 2002). The responsibilities for local disaster are outlined in section 54 of the Act (Act 57 of 2002). It should be noted that a council of a district municipality, acting after consultation with the relevant local municipality, is primarily responsible for the co-ordination and management of local disaster that occurs in the area (Section 54(1)(b)). The district municipality and the relevant local municipality (for example Tlokwe Local Municipality) may agree that the local municipal council assumes primary responsibility for the coordination and the management of a local disaster that has occurred or may occur in the area of the local municipality (Section 54(2) (Act 57 of 2002)). The municipality then having primary responsibility for the coordination and management of the local disaster, must deal with the disaster either in terms of existing legislation and contingency arrangements if a local state of disaster is not declared (Section 54(3)(a) (Act 57 of 2002)). If a local state of disaster is declared, the latter arrangements, supported by by-laws or directions issued in terms of section 55(2) (Act 57 of 2002), are used (Section 54(3)(b) (Act 57 of 2002)).

2.4.1.6 The establishment of disaster management plans at all spheres of government.

As discussed in section 2.4.1.3, all national (Section 25 Act 57 of 2002), provincial (Section 39 Act 57 of 2002) and municipal organs of state (Section 53 Act 57 of 2002), municipal entities (Section 52 Act 57 of 2002) and other institutional partners identified as key role players in Disaster Risk Management are required to prepare and complete a Disaster Risk Management Plan (Policy framework notice 654 of 2005: 3(1)(1)(2)). The Disaster Management Plan must be included in the integrated development plan of the municipality (Section 53(1)(d)). The role of integrated development plan and its link to the disaster management plan are discussed in more detail below as it is a method available to ensure that Disaster Risk Management is integrated into the planning at the local sphere of government.

All local municipalities including, the Tlokwe Local Municipality are, in accordance with the Local Government Municipal Systems Act 32 of 2000 duty bound to provide a number of functions and service that can arguably decrease the impact

risk of hazards and increases the resilience and decrease social, economic and environmental vulnerability. These duties include the following:

- To strive to ensure that municipal services (according to schedule 4(A) and 5(A) of the Constitution Act 108 of 1996, and those functions in the schedules that the Minister has Authorised the local municipality (Tlokwe Local Municipality) to execute according to section 84(3) Act 117 of 1998) are provided to the local community in a financially and environmentally sustainable manner (Section 4(2)(d) Act 32 of 2000).
- To provide each member of the local community equal access to the municipal services that they are entitled (Section 4(2)(f) Act 32 of 2000).
- To contribute together with other organs of state, to the progressive realisation (planned and implemented) of the rights (Section 4(2)(j) Act 32 of 2000), namely, sections, 24 (Environmental rights), 25 (Property Rights), 26 (Housing rights), 27 (Rights to health care, water and social security) and 29 (Right to education) contained in the bill of rights (Act 108 of 1996).
- To promote a safe and healthy environment in the municipality (Section 4(2)(i) Act 32 of 2000).
- To promote and undertake development in the municipality (Section 4(2)(g) Act 32 of 2000).

To achieve the above and to ensure the compliance with constitutional obligations, the municipality must undertake a developmental–orientated planning approach (Section 23 Act 32 of 2000). The planning process must be aligned with national, provincial, district municipality (Section 24 Act 32 of 2000) and other departmental strategies within the local municipalities (Intergovernmental relations Framework Act 13 of 2005).

The newly elected municipal council is responsible for the plan (Integrated Developmental Plan (IDP)), and may adopt with or without amendments the IDP of the predecessors (Section 25(3); 25(4) Act 32 of 2000) or may within a prescribed period adopt a single inclusive strategic plan for the development of the municipality in accordance with section 25 (Act 32 of 2000). The IDP must reflect the council's vision for long-term development (Section 26(a) Act 32 of 2000), present development status, including communities without basic services (Section 26(b) Act 32 of 2000), and development priorities of the council for the elected term (Section 26(c) Act 32 of 2000). The development strategies in the IDP are required to be aligned with any national, provincial sectoral plans or planning requirements

that bind the municipality in terms of the legislation (Section 26(d) Act 32 of 2000). The municipal IDP must include a spatial development framework which includes basic guidelines for land use development (Section 26(e) Act 32 of 2000), an applicable disaster management plan (Section 26(g) Act 32 of 2000), a financial plan with a budget projection for following three years (Section 26(h) Act 32 of 2000) and Key performance indicators and targets (Section 26(i) Act 32 of 2000).

The disaster management plan must be prepared according to the prevailing circumstances in the area, and the implementation thereof must be aligned with other organs of state and role players in the area (Section 53(1) Act 57 of 2002). The plan must therefore provide for the following (Section 53 (2)):

- The identification of the types of disasters that are likely to occur in the municipal area and forecast the possible effects.
- The identification of the measures required to reduce vulnerability of disaster-prone areas, communities and households.
- The identified areas, households and communities at risk.
- The identification and provision of possible solutions/innovations where weakness in the capacity to deal with possible disasters does exist.
- The implementation of appropriate prevention and mitigation strategies.
- Means, measures, etc., to ensure maximum emergency preparedness.
- Contingency plans and emergency procedure for disaster events.

The IDP, once approved and adopted by the municipality council except for the annual reviews, is arguably one of the most important planning and operational documents that will be used by the municipality over the elected term of office in that it is the instrument which guides and informs all planning and development, and all decisions with regard to planning management and development in the municipality (Section 35(1)(a) Act 32 of 2000). Secondly, it binds the municipality in the exercise of its executive authority, except to the extent of any inconsistency between a municipality's IDP and national or provincial legislation, in which case such legislation shall prevail (Section 35(1)(b) Act 32 of 2000). Thirdly, it binds all other persons to the extent that those parts of the IDP that impose duties or affect the rights of those persons have been passed as a by-law (Section 35(1)(c) Act 32 of 2000). Fourthly, when preparing the annual budget, the mayor of a municipality

must take into account the municipality's integrated developmental plan and take all reasonable steps to ensure that the municipality revises the integrated development plan in terms of section 34 (Act 32 of 2000), at all times, taking into account realistic revenue and expenditure projections for the next year (Section 21(2)(a) & section 21(2)(b) Act 56 of 2003).

The significance of this approach is that it not only recognises the need for integrated sustainable development planning, it mandates an integrated approach involving all levels of stakeholders including the community in accordance with Chapter 4 (Act 32 of 2000). Its contents include a spatial plan and an applicable disaster management plan and that a financial plan is provided for the implementation with a detailed budget for the following three years. The total plan becomes the strategic and operational plan according to which the municipal council will be expected to plan and operate. It is thus against this plan that funds will be approved, performance will be measured, and the Local Government: Municipal Finance Management Act 56 of 2003 will measure the performance of the municipality and municipal council will be held accountable.

A conceptual model of the legislative framework for disaster management, based on the above discussion, is presented in the form of a concise summary, to indicate the interrelation between the constitution, international obligations, legislation, policies and regulations, related to disaster management, in Figure 4.

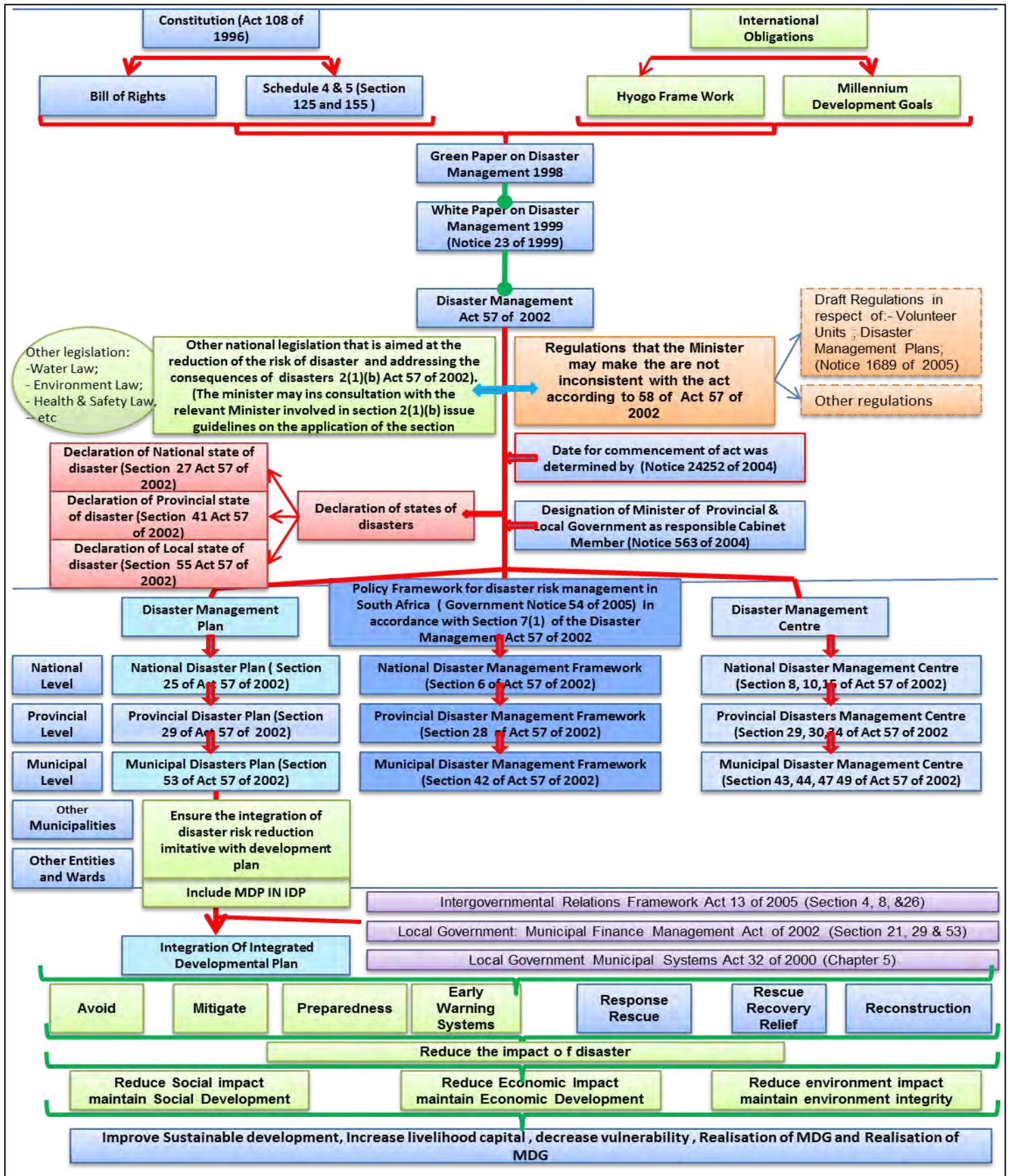


Figure 4: Legislative framework for Disaster Management in South Africa since 1998

The above only provides an insight to the legislation directly related to the disaster management and the municipality-integrated development planning process. As the focus of the study is on the water catchment area it necessitates a brief discussion of the legislation related to the water resource and environment, which is discussed below.

2.4.2 Legislation, policy and other measures related to water resources and the environment

It is necessary to consider the legislation directly concerned with water resource management and the management of the environment, as, the study focuses on the water catchment area. Secondly, environment sustainability is one of the three cornerstones to sustainable development. Thirdly, water is not only a vital resource but can also be a source of potential hazards (droughts, flooding, chemical pollutions, biohazards etc.). Fourthly, disasters can result in environmental degradation and environmental degradation can enhance the potential of disasters for example the destruction of flood plains, global warming, desertification, etc. Therefore, the state plays a role to ensure that effective legislation is in place and enforced to ensure that the right to the environment is protected while justifiable social and economic development is promoted. This has been realised by the enactment of the National Environmental Management (NEMA) Act 107 of 1998 and the National Water Act (NWA) 36 of 1998 (Thompson, 1996:137).

The Constitution has allocated the management of the water resources to the National Government as custodian, and the management of water and sanitation services to local government (Schedule 4(B) Act 108 of 1996). The National Water Resource Act (NWA) 36 of 1998 is the legislation that deals with the water resources and the way it should be protected, used, developed, conserved, managed and controlled in an integrated manner. The Water Services Act (108 of 1997) deals with water services to households, sanitation service provided to households and other municipal users. It provides the rules and directives in respect of how these services must be provided.

The NWA (36 of 1998), sets out the principles of sustainability, equity and efficiency that guide the protection and use, development, conservation, management and control of the water resource (which includes all groundwater, surface water and course ways). This is mainly effected through the tool of water management strategies (National Water Resource Strategy (Chapter 2, Act 36 of 1998), and Catchment Management Strategy (Chapter 3, Act 36 of 1998). In the case of this study, the most significant aspect is the water resource, and its reserve is thus discussed. According to the act, the reserve is the basic quality and quantity of the water resource that are required (Act 36 of 1998). It is composed of two components; the first is the water required to meet the basic human needs, such as for drinking, food preparation and hygiene. The second is the ecological reserve, which is the amount of the resource that is required to ensure that there is sufficient water of acceptable quality for future use. The latter implies that the resource (including watercourses) ecology must be such to ensure that the resource is of an acceptable quality.

To ensure that the quality of the ecological reserve is protected and improved, provision is made in the Act for the prevention of pollution (Chapter 3 (Act 36 of 1998)). For example, according to section 19 (Act 36 of 1998) an owner of land, a person in control of land or a person who occupies or uses the land on which (19(1)(a)(Act 36 of 1998)) any activity or process is, or was performed or undertaken, (19(1)(b)(Act 36 of 1998)) or any other situation exists, which causes, has caused or is likely to cause pollution of water resources which include both surface water and groundwater and the water course according to the act's definition of water resource, will be held responsible for the pollution of the water resources. The responsible person accordingly must take reasonable measure to prevent any such pollution from occurring, continuing or recurring. Section 19(2)(Act 36 of 1998), provides examples of measures that may be taken, section 19(3), 19(4), 19(5) (Act 38 of 1990) provides for the procedures that the officials can take to enforce compliance, and section 19(6), 19(7), and 19(8) (Act 36 of 1998) deals with recovery of the costs, including remedial costs.

The significance of the above for the Tlokwe Local Municipality is that it can be held responsible for any action of the municipality resulting in the pollution of the water

resources, and the act provides recourses that the municipality can utilise to insure that other parties do not pollute the water resource. In the case of an emergency, the procedures to be followed are outlined in section 20 of the Act 36 of 1998. The Act is significant in that it makes provision for remedial action to be taken on behalf of the responsible person; if the responsible person fails to comply, fails to comply fully, or if it is not possible to give the directive to the person on time (20(6) Act 36 of 1998).

The remainder of the resource is that which can be allocated for water use. This allocation should theoretically be done according to priorities, including those of strategic importance, inter catchment transfers and contingency needs. Significance is that water use refers to any activity that will affect the water resource quantity, quality and environment (Sections 21, 22, 23, & 34 Act 36 of 1998). It therefore not only refers to water extraction, it includes activities that change the stream flow (weirs, dams, canals, etc.), and wastewater discharge, etc. (Section 21 Act 36 of 1998).

In this context, the Tlokwe Local Municipality is a water user, and is therefore subject to the requirements of the NWA (Act 36 of 1998). The same Act 36 of 1998 allows the municipality and the local community to ensure that the Minister concerned enforces water resource users to comply with the requirements of the Act, and their water user licenses agreements. The latter is of importance in that the Tlokwe Local Municipality's water quality is largely affected by upstream users (mines, industries, water works, etc.), which are arguably possible sources of water resource related hazards (chemical, biohazards, etc.).

The Water Services Act 108 of 1997 recognizes the right of access to basic water supply (27 Act 108 of 1996), basic sanitation and to ensure sufficient water and an environment not harmful to health and well-being (24 Act 108 of 1996). The effective provisioning of these basic services and of an acceptable quality to all the inhabitants of the Tlokwe Local Municipality will arguably assist in increasing the resilience and the livelihood of the most vulnerable, thereby assisting in reducing their susceptibility to potential hazards and the impact of potential disasters. The objectives of the Act 108 of 1997 include providing for the accountability of the water service provider (in this case the Tlokwe Local Municipality) (2(i) Act 108 of

1997) and the promotion of effective water resource management and conservation (2(j) Act 108 of 1997). The water service authority has a duty to progressively ensure the efficient, affordable, economical and sustainable access to water for all consumers and potential consumers in its area of jurisdiction, in accordance with section 11 Act 108 of 1997. To enable the water services authority to effectively provide for these services, they are required to a draft water services development plan in accordance with sections 12 & 13 (Act 108 of 1997), and to make by-laws for the conditions of the provision of water services in accordance with section 21 (Act 108 of 1997). During an emergency, the water authority must take reasonable steps to provide basic water supplies and basic sanitation services to any person within its area of jurisdiction, and may do so at the cost of the authority (11(5) (Act 108 of 1997)).

The importance of this requirement is reflected in a recent incident of anthropogenic origin, where a number of water reservoirs in the Tlokwe Local Municipality's municipal area were "accidentally" drained. This resulted in a shortage of water, and the municipality needed to take the necessary action to ensure access to potable water (Botha, 2013a:3; Venter, 2013:2). Therefore, the Water Services Act (108 of 1997) places an obligation on the Tlokwe Local Municipality to provide basic water and sanitation services to all persons in its jurisdiction, and to indicate how this will be realised in its water services developmental plan. The water services developmental plan is continuously monitored by the responsible national department and the evaluations are available to the public. The evaluations are available on the national departments web site (DWA, 2013:Online).

The Constitutional and legislative obligations, functions, responsibilities and functions discussed above are not the only requiring action, or providing means available to the Tlokwe Local Municipality to ensure that potential hazards or disasters are effectively managed. There are numerous legislative and other measures available to the Municipality that, if effectively complied to, and utilised could reduce the likelihood of, and negate the impact of potential hazards. A few of these legislative and other measures are discussed below.

2.4.3 Additional supporting legislative, regulatory and policy measures

Legislative and other measures exist that enable the Tlokwe Local Municipality to reduce the negating impact of disaster. These include proactive measure that ensure that hazards are avoided or vulnerability is reduced for example poor infrastructure, the monitoring for compliance, and measures to ensure rapid response when required. A summary of some of the other legislation and measures that can assist in managing the potential risk of disasters are provided in Table 2:

Table 2: Examples of supporting legislation and measures that are available to assist with the effective managing of the risk of potential disasters or assisting with reducing the impact of disaster

Acts, regulations, policies and their relation to Disaster Risk Reduction and Management	
Act:	Focus
Occupational Health and Safety Act (Act 85 of 1993).	Provides for the health and safety of people at work, and for the health and safety of persons using plants and machinery, as well as the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with activities at work. It requires of every employer to (8)(1) maintain, as far as reasonably practicable, a working environment that is safe and without risk to the health of the employee. Section 24(1) provides guidelines in respect of the reporting of incidences. <i>(It may be important if these incidents could also be referred to the head of the DMC to be able to identify underlying risk or vulnerability trends).</i> The Department of Labour is responsible for monitoring and implementing the Occupational Health and Safety Act 85 of 1993, as Amended by the Occupational Health and Safety Amendment Act 181 of 1993, and its regulations,
Construction Regulations (No R 1010 18 July 2003).	Provides for the principle of hazard identification and risk assessment, and a documented plan for safe work procedures to mitigate, reduce or control the risks and hazards that may arise at any construction works. Although this is only on a small scale, it arguably has two significant impacts. Firstly, it reduces the likelihood of events arising from potential hazards. Secondly, it instils the important concept of hazard identification, assessment and management.
Environmental regulations for Workplaces (No R2281 of 16 October 1987) (These regulations bind both private	Important in respect of hazards and risk management, Section 8 in respect of precautions against flooding of a work place and Section 9 fire precautions and means of egress.

Acts, regulations, policies and their relation to Disaster Risk Reduction and Management

Act:	Focus
and government sector in accordance with the Occupational Health and Safety Act (Act 85 of 1993).	
General Safety Regulations (No R1031 of 30 May 1986).	The regulation 3(1) requires an employer to take all reasonable steps that are necessary under the circumstances to ensure that persons at work receive prompt first aid treatment in case of an injury or emergency. The regulations require the availability of a person with an appropriate competency in first aid to be available during normal working hours in accordance with prescripts of section 3(4) of the regulations.
Hazardous Chemical Substances Regulations (No R930 of 25 June 2003).	This regulation provides for the handling (Section 9a), labelling, packaging, transportation, storage (section 14) and disposal of hazardous chemical substances (Section 15).
Major Hazard Installation Regulations (No R692 of 30 July 2001).	The regulation requires that an employer or self-employed or users, who have on their premises, either permanently or temporarily, a major hazard installation or quantity of substances which may pose a risk to health and safety of employees and the public. Significant in the regulations is the function and duties of the local government in 2(1) and 9 of the regulation.
National Veld and Forest Fires Act (Act 101 of 1998).	The Act focuses on the prevention and combating of veld, forest and mountain fires. The provision for early warning systems in respect of the above is included.
National Environment Management Act (Act 107 of 1998). National Environment Management Amendment Act (Act 46 of 2003).	Demands Environmental Impact Assessments. Enforces environmental liability and due diligence for Operations of business and government, that could impact on the environment, including handling of hazardous waste and substances, waste material, radiation hazards and genetically modified organisms.
Directions in terms of the environment conservation Act 73 of 1989 with regards to the control and management of general communal and small waste disposal sites.	
Hazardous	This act makes provision for the control of substances which may cause injury,

Acts, regulations, policies and their relation to Disaster Risk Reduction and Management

Act:	Focus
<p>Substance Act 15 of 1973 as Amended by the Hazardous Substance Amendment Act 16 of 1976, the Hazardous Substance Amendment Act 31 of 1981, the Hazardous Substance Amendment Act 53 of 1992.</p>	<p>ill–health to or death of human beings by reason of their toxic, corrosive, irritant, strongly sensitizing or flammable nature or generation of pressure, and for certain electronic products. These products are divided into four groups to assist with acquisition, storage, handling and disposal thereof. <i>Significant is that the Minister may by notice in the Gazette, authorise a local authority to enforce the act in its jurisdiction through an authorised official (Section 24(1)).</i> The Minister utilises the regulatory process to update the list of hazardous products and procedures in respect of the acquisition, storage, use and disposal of specific hazardous substances.</p>
<p>Hazardous Chemical Substance Regulation (Regulation 1010 of 2003).</p>	<p>The focus of these regulations is to establish a management plan to control the exposure to the risk of chemical hazards, where the provisions of the plan includes assessing the potential exposure to risks, minimizing the possible environmental effects through proper waste management and pollution prevention.</p>
<p>National Health Act 61 of 2003.</p>	<p>Provides for the following municipal health services:</p> <ul style="list-style-type: none"> - Water quality monitoring, - Food control, - Waste management, - Health surveillance of premises , - Surveillance and prevention of communicable diseases, excluding immunisations, - Vector control, - Environmental pollution control , - Disposal of the dead and - Chemical safety <p>Section 80 provides for the appointment of health officers whose duties include (section 83) environmental health investigation. The environmental office has the right under certain circumstances (82(1)) and (86) to enter a site without and with a warrant (84).</p>
<p>Regulations defining the scope of the profession of environmental health amendment (No 123 of 8 February 2008).</p>	<p>This served to make amendments to the proposed regulations (No 888 of 26 April 1991)</p> <p>The scope provides for service in the following areas:</p> <ol style="list-style-type: none"> 1. Water 2. Food control 3. Waste Management 4. Health surveillance of premises 5. Surveillance and prevention of communicable diseases excluding immunisation

Acts, regulations, policies and their relation to Disaster Risk Reduction and Management

Act:	Focus
	<ol style="list-style-type: none"> 6. Vector control 7. Environmental pollution control 8. Disposal of the dead 9. Chemical safety 10. Noise control 11. Radiation and ionising and non-ionising monitoring and control 12. Malaria control 13. Control of hazardous substances <p>A part of scope the services are directly related with Disaster Risk Management. These include:</p> <ul style="list-style-type: none"> - Conducting environmental health impacts and assessments including major Hazardous installations (7(c)). - Conducting environmental health hazards and risk mapping (7(d)). - Prevention and control of land pollution (7(i)). - Emergency preparedness under abnormal operating conditions and disasters with other role players (7(n)). <p>These services are significant for Disaster Risk Reduction Management and disaster management in respect of the local municipality, and the role of these officials in any risk management or disaster reduction initiative must be considered.</p>
<p>Fire Brigade Services Act No 99 of 1987 as Amended by the Fire Brigade Services Amendment Act 14 of 2000.</p>	<p>Allows for the local authority (Section 3) to maintain the services of the fire brigade that include:</p> <ol style="list-style-type: none"> 1. Preventing the outbreak and spread of fires 2. Fighting and extinguishing fires, 3. Protection of life or property against a fire or other threatening danger, 4. Ambulance service, subject to the provision of the Health Act (No 63 of 1977) <p>The powers of the members of the service are outlined in Section 8 of the Act and include:</p> <ol style="list-style-type: none"> 1. Close a road or street 2. Enter or break any premises, 3. The member of the controlling authority including a chief fire officer may order any person not younger than 16 years or older than 60 years to assist in the performance of the function on any particular occasion.
<p>National Railway Safety Regulator Act 16 of 2002</p>	<p>Provides for safety standards and regulatory practices for the protection of persons, property and environment. It recognises that safe railway operations are fundamental to the safety of all persons and the environment and acknowledges that railway safety has a relationship with occupational health and safety and security.</p>
<p>Pesticide Management Policy for South Africa (Notice 1129 of 2010).</p>	<p>Policy released under Fertilizers, Farm feeds, Agricultural remedies and stock remedies act (Act No 36 of 1947); attempts to address the hazardous effects of pesticides.</p>

Acts, regulations, policies and their relation to Disaster Risk Reduction and Management

Act:	Focus
Mine health and safety act (Act 29 of 1996).	The act focuses mainly on the protection of the health and safety of employees and other persons on the mines. Section 2(2)(a) requires every manager, as far as it is reasonably practicable, to identify the relevant hazards and assess the related risk which persons who are not employees are exposed to. It also requires every manager to ensure that persons who are not employees, but who may be directly affected by the activities of the mine, are not exposed to any hazards to their health and safety.

These constitutional, legislative, policy, and other measures oblige the Tlokwe Local Municipality to enhance sustainable development, so as to ensure sustainable economic development, social development and environmental preservation; together with the latter to provide service to increase livelihood capital and resilience of the most vulnerable; to identify and manage risk of potential hazards; and to effectively manage disasters. It should be noted that although the above does not provide a comprehensive study of relevant constitutional, legislative and other measures, or case law, it nevertheless provides sufficient information in respect of the Local Municipalities obligations and recourse, reports, and the data required for the municipality to effectively execute its obligations. These data requirements are summarised below.

2.5 Summary

An effective geo-spatial information that will enhance the Tlokwe Local Municipality to manage the potential short-, medium- and long- term risk of disasters that could arise from potential hazards in the catchment area must take the following into consideration:

Firstly, the data required in respect of the disaster management functions the municipality will be obliged to effect: include promoting a safe and healthy environment in its area of jurisdiction (A4(1)(i) Act 32 of 2000); realisation of the right to property (section 25 Act 108 of 1996), housing (section 26, Act 108 of 1996), health care, food, water and social security (section 27, Act 108 of 1996); providing basic water supply, basic sanitation supply to all persons in its jurisdiction

while securing sufficient water and ensuring an environment that is not harmful to human health or well-being (2(a), Act 108 of 1996); Disaster Risks Reduction (53(2), Act 57 of 2002) and; Disaster Response and Recovery (54(2) Act 57 of 2002.

Secondly, the legislation outlines the requirements imposed on the Local Municipality, in respect of the management of all aspects of disaster risk reduction and disaster management, including hazard assessment, preparedness, early warning systems, response, rescue, recovery and reconstruction.

Thirdly, the legislation emphasizes proactive planning to reduce the risk of potential disasters, through Disaster Management Plan, The Spatial Development Plan and the Integrated Development Plan.

Fourthly, constitutional and international obligations acknowledge a sustainable development approach to disaster risk management.

Fifthly, a number of alternative legislative and regulatory instruments are provided to assist the Local Municipality in effectively avoiding or reducing the impact of disasters.

Sixthly, provision is made for the reports and data the municipality will be required to provide.

Therefore, for the purpose of this study the geo-spatial information system must be able to enable the Municipality to identify vulnerable environments, persons, and infrastructures within the local municipality area that can be affected by potential short-, medium- and long-term hazards related to the water resource and arising in the catchment area of the Mooi River. The system must:

- Assist in identifying potential hazards related to the water resources and their potential origins, where applicable, that could arise in the catchment area of the Mooi River.
- Be able to assist in avoiding and/or mitigating and /or preparing for potential disasters that could have an impact on the local municipal area.
- Provide for early warning systems.
- Provide for effective response to a disaster if it were to arise because of a hazard.

- Provide the type of information of that the municipality will be obliged to report on includes: Information required in respect of the water services development plan (section, 12, 13, Act 108 of 1996); Information that will be required in the disaster management plan (20(1), R1689 of 2005; 53(1)(d), Act 57 of 2002);
- Provide the relevant information that will be required by the National Disaster Management Information System (17(1) & 46(1)(b), Act 57 of 2002).

In Chapter 5, a classification of the data requirements identified in this chapter together with their possible data sources and data quality requirements is provided. The potential short-, medium- and long-term generic water catchment hazards and those specifically associated with the Mooi River surface water catchment area, are discussed in the next chapter.