

**Environmental Management Decision-Making:
The South Durban Basin
Multi-Point Plan**

by

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Abstract

The South Durban Basin (SDB) is known as an area of conflict due to a juxtaposition of industrial and residential land uses as a result of past political and environmental injustices. Over the years residents of the SDB have protested against the industrial developments and ensuing pollution in the area especially the air pollution emitted from major refineries and other businesses. This civil action brought attention to the serious air quality health concerns in the area which eventually led to the formation of a Multi-Point Plan (MPP) in 2000. The MPP was a scientifically based air pollution monitoring network of the SDB established by government in collaboration with community and industry representatives to address the air pollution issues of the area. The MPP was one of the first of its kind in South Africa and the outcome of this process fed into the most recent Air Quality Management Act 39 of 2004 which in turn led to an improvement of air quality in the SDB. The aim of this thesis is to analyse the SDB MPP as a form of deliberative governance as the MPP had aimed to include and deliberate effectively with all stakeholders in the decision-making policy processes of the plan. Therefore, using a theoretical framework on deliberative governance in the network society in environmental decision-making, the true deliberative nature of the MPP can be assessed. Four objectives are used to analyse the MPP where the first is to explain the goals and structure of the MPP and the second to describe the decision making processes involved. The third objective is to examine the degree of deliberation that took place in the processes of the MPP and the fourth objective is to analyse the role of science in the MPP. The outcome of this study shows that while stakeholders were included, the NGO and community stakeholders felt that they were not fully involved and collaborated with, in the decision-making process of the MPP. The results showed that the deliberative processes of the MPP were not democratically deliberative. Therefore the MPP proved to be a weak form of deliberative governance.

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DECLARATION 1 - PLAGIARISM

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Chapter 1

Introduction

Up until the 1970s, the environmental policymaking procedures of government were not inclusive. Decision-making took place in a top-down manner. The result of this was that policies were often inappropriate and authoritarian. In recent times, the needs and demands of a democratic society have forced government into opening its doors to include the voices of those affected by environmental decision-making. Through the inclusion of interested and affected persons and parties (stakeholders) in decision-making, more effective policies and management can be achieved as policies are now applicable to a specific situation. In South Africa, the South Durban Basin (SDB) is an area that suffered from poor environmental management which had its origins in the apartheid past. Residential areas and heavy industry were developed side by side which led to conflict over the impacts of industry on people living in the residential areas. Especially significant was the issue of industrial air pollution that has led to many community protests and contentious issues. The Multi-Point Plan (MPP) was put in place as a participatory process to develop a new air quality plan. It was claimed by national government that it was an environmental management initiative which would democratically include the voices of those affected to better inform policy. The MPP aimed to be a democratic decision-making process of discussion amongst interested and affected parties to meet the goal of effective air quality management in the SDB. Thus, MPP was initiated in response to the poor air quality in the South Durban Basin. The policymaking processes of the MPP took place over eight years from 2000 to 2008 and will be analysed in this thesis as a deliberative environmental decision-making process¹. Although titled the Multi-Point Plan, the MPP was in fact a participatory policy making process, the outputs of which were embodied at the outset of the thus the process that led to the outputs was in fact achieving any goals of the plan².

¹ Deliberative decision-making processes involve the interactions of the state, business and civil society to make decisions which lead to policies required by society. This concept is part of a new „post empiricist“ approach to public policy that is based on a social constructivist approach to knowledge (Fisher, 2003a).

² It needs to be emphasised that the theoretical framework of the thesis is not located in management theory but in the theory of interpretive policy analysis (Hajer and Wagenaar, 2003).

The National Environmental Management Act 107 of 1998 was put in place to “*provide for cooperative environmental governance by establishing principles for decision-making on matters affecting the environment*” and for “*institutions that will promote cooperative governance and procedures for coordinating environmental functions exercised by organs of state*” (NEMA, 1998:2). Scott and Barnett (2009:379) state that

“*since public participation is a statutory requirement of the EIA process in terms of the Environmental Conservation Act (Act 73 of 1989) and has been reinforced through NEMA (Act 107 of 1998) and its Amendments, consultants are mandated to consult communities to determine the potential social impacts of proposed developments*”.

NEMA 1998 calls for an Integrated Environmental Management (IEM) to implement its aims using appropriate environmental management tools (NEMA, 1998). One of the aims of IEM is to “*ensure adequate and appropriate opportunity for public participation in decisions that may affect the environment*” (NEMA, 1998:34). Agenda 21 was a 1992 United Nation’s worldwide action plan for social, economic and environmental sustainable development that targets cities to find a balance between the demands of growth and environmental resources (Hindson et al, 1996). Thus locally cities were required to adopt sustainable development in their local programmes and plans where the mandate “*requires local authorities to interact with civic community, non-governmental, business and industrial organisations in preparing and implementing sustainable development strategies for their cities through the process of consultation and consensus building*” (Hindson et al, 1996:124). Integrated Environmental Management (IEM) was put in place (date) prior to Agenda 21 and NEMA (1998). This policy provided the background upon which current environmental legislation and policy are based and includes principles for citizen participation in environmental decision-making processes (Fuggle and Rabie, 1992).

In South Africa the Reconstruction and Development Programme (RDP) aimed to reconstruct all development and economic growth by including environmental considerations into all decision-making whilst ensuring a descent quality of life for all South African citizens both present and future (Hindson et al, 1996). Thus government was required to work towards an “*equitable access to natural resources, safe and healthy living and working environments and a participatory decision-making process around environmental issues, empowering communities to manage their natural environments*” (Hindson et al, 1996:125).

1.1 Rationale

The MPP as an environmental decision-making process was one of the first of its kind in South Africa. It was an extensive air quality management process that aimed to be democratically inclusive and collaborative. In South Africa, there is a demand for more inclusive and more democratic policymaking as the social and environmental needs of people are increasingly being placed at the forefront of politics in terms of the new Constitution. The MPP aimed to be one such policy process and it was highly publicised as a step in the right direction for environmental management. The MPP has not been examined from an interpretive policy analysis approach before and therefore this study provides a new perspective on the process. The lessons learned from this case study can be carried through to other environmental management projects that aim to deliberate with all stakeholders for democratic decision-making.

1.2 Aim and objectives

The aim of this study is to analyse the South Durban Basin Multi-Point Plan as a form of deliberative governance.

The objectives of this study are:

1. To explain the goals and structure of the MPP
2. To describe the decision-making processes of the MPP
3. To examine the degree of deliberation that took place in the process of the MPP
4. To analyse the role of science in the MPP

1.3 Outline of the chapters

There will be six chapters in this thesis: the introduction, theoretical framework, background, methodology, results and the conclusion. This the first chapter aims to introduce the study and identify the main issues of this thesis. This chapter also aims to provide a rationale to explain why the study was undertaken and to present the aims and objectives of this study.

The second chapter will provide a theoretical framework which is used not only to frame the research but also to analyse the empirical results of the study. Relevant literature will be

reviewed to develop the theoretical framework. The theories that will be reviewed will be on policy analysis, policymaking, governance in the network society and democratic decision-making, deliberation and civic science.

The third chapter aims to provide a background to the study to situate the study in the South Durban Basin. This background will discuss the history of the study area with regards to the social development of the area and the background to the initiation of the MPP.

The fourth chapter, the methodology, will present an overview of the methods and processes that were used to collect and analyse the data. The methodology is designed to meet the aim and objectives of the thesis. This chapter will provide the reader with a basis to assess the validity and quality of the conclusions.

The fifth chapter presents an analysis of the data collected through the application of the theoretical framework in order to provide answers for the aim and objectives of this study. This section will enable conclusions to be drawn, based on the analysed data.

The sixth chapter, the conclusion, will sum up the main findings of this study, as well as highlight the aims and objectives with regards to how they were fulfilled. Recommendations for potential improvements will also be provided in this chapter.

1.4 Conclusion

This chapter has outlined the aim and objectives of this study and has provided a rationale for the research undertaken. The issues of this study and the legislation that preceded the MPP have also been outlined. This chapter has also provided a brief description of the contents of each chapter. The following chapter will discuss the theory related to deliberative decision-making in the environmental policy process.

Chapter 2

Theoretical Framework

2.1 Introduction

Theory on policymaking in today's world is needed to analyse the South Durban Multi Point-Plan as a form of deliberative governance. This chapter will review theories on governance in the network society, deliberative democracy, deliberation and civic science in order to understand the policymaking process. These theories provide a framework through which the results from the data collection of this study will be analysed. As the Multi-Point Plan was an environmental policy process, the literature review focuses on environmental policymaking or „governance“. This literature review relies on the framework of an interpretive approach to deliberative policy analysis put forward by Hajer and Wagenaar (2003). This theory is derived from political science, but it is applicable in geography, and provides significant insights into the MPP policymaking process. This theory of deliberative governance (deliberative decision-making) falls within a new „interpretive“ approach to public policy analysis. This approach is outlined in Fisher's (2003a) text titled *Reframing Public Policy*, where he describes the new shift in policy analysis away from earlier „empiricist approaches towards a more interpretive constructivist approach (Fischer, 2003b; Yanow, 2003).

2.2 The shift to interpretive policy analysis

In the past, institutionalised technocratic policy science was the authority on policymaking, where neutral positivist methods were used to create objective policies and solutions to a series of social and economic problems (Hajer and Wagenaar, 2003). This would mean that other forms of knowledge, such as lay knowledge, would not have been allowed to play a role in traditional policymaking. Instead a quantitative scientific approach was adopted which assumed an objective neutral stance to knowledge production. Oelofse et al (2006) describe how in South Africa, modernist, technocratic, science-based policymaking is the approach used to address social and environmental issues with science and technology as the tools used for this mainstream approach which aims to move towards sustainability (Oelofse et al, 2006).

Traditionally, policy analysts would have the final say on contentious political issues as they felt they had to act with the voice of rationality after scientifically collecting the „facts of the

matter" (Hajer and Wagenaar, 2003). Far from the voice of the citizens, these political and economic elites produce technically and economically efficient solutions to what they perceive as the problems of society (Hajer and Wagenaar, 2003). Therefore conventional policymaking did not involve input from the citizens for whom the policies were intended, and to be precise, they were created in a „top-down" fashion (Hajer and Wagenaar, 2003).

Beginning in the 1980's, this traditional view of policymaking was challenged and criticised for its assumption that society was hierarchically ordered and that experts should make the decisions (Hajer and Wagenaar, 2003). Generally however, there is no set solution to every environmental problem as every problem has a unique context and thus these methods would have not been applicable. Post-positivist policy analysts began to look at methods that used a more interpretive approach to policymaking that included an interpretation of the democratic qualities of policy deliberation in order to determine to what extent „other voices" had been included in policy processes (Hajer and Wagenaar, 2003). There was a need for a more in-depth engagement with stakeholders in the processes of decision-making.

Hajer and Wagenaar (2003) suggest that a deeper understanding of policymaking processes could be gained through the use of an interpretive approach and thus, this study on the MPP will be undertaken using this interpretive approach. However, the ideals of the post-positivist critical policy analysts did not initially form a strong opposition as a consistent alternative to the institutionalised traditional positivist policy analysis (Hajer and Wagenaar, 2003). This analysis of the South Durban MPP is presented here as an example of empirical evidence of a new type of interpretive policy analysis. The theoretical review now turns to discuss governance and the network society.

2.3 Governance and network society

In our ever changing society, the new language of „governance" creates new spaces for policy analysis (Hajer and Wagenaar, 2003). As governments were hierarchically ordered from local to regional to national to international, governing and decision-making within political space was hierarchical (Hajer and Wagenaar, 2003). However, more recently politics and policymaking is challenged by the creation of new multi-levelled spaces of inter-organisational networks that do not operate within the old hierarchical form of governance

(Hajer and Wagenaar, 2003). In the past, political parties played a key role in decision-making processes now in a more democratic context, non-governmental groups, such as the media, can oppose political processes and civil society organisations can reach out to people through active protesting (Hajer and Wagenaar, 2003).

Thus, the nature of politics and policymaking is changing and is evident in newer spheres of politics such as the environment (Hajer and Wagenaar, 2003). Top-down governance that uses set solutions to complex political and environmental issues are not effective or appropriate in today's society (Hajer and Wagenaar, 2003). The urgent problems of today's world do not fit into the mainstream system of policymaking as context based practical needs require new deliberative processes that call for a co-operative effort among various stakeholders to find more effective solutions (Hajer and Wagenaar, 2003). Even governments are beginning to note the links between interaction, cooperation and results (Hajer and Wagenaar, 2003).

Governing, politics and administration are being redefined with new political practices emerging within state institutions and between the state and civic organisations (Hajer and Wagenaar, 2003). In developed nations, forms of decentralised governance display "*dispersed power, diminishing trust, ambiguous institutions, powerful transnational influences and increasing reflexivity*" (Hajer and Wagenaar 2003: xiv). These changes are highlighted by changing vocabularies from the government to governance, where:

"Terms like ,governance", ,institutional capacity", ,networks", ,complexity", ,trust", ,deliberation" and ,interdependence" dominate the debate, while terms like ,the state", ,government", ,power" and ,authority", ,loyalty", ,sovereignty", ,participation" and ,interest groups" have lost their grip on the analytical imagination" (Hajer and Wagenaar, 2003:1).

In South Africa, new approaches are beginning to meet the needs of social and environmental justice issues as the old positivist approaches of government are deemed unfair and inappropriate (Oelofse et al, 2006). Case studies highlight the successes of new forms of environmental governance and decision-making systems that are including local knowledge and not just relying on the mainstream expert-driven processes (Oelofse et al, 2006). This shift shows a challenge and modification of the mainstream approaches (Oelofse et al, 2006).

Temporary informal governance arrangements are now often producing better solutions to societal problems than authoritative decisions by the central state (Hajer and Wagenaar, 2003). Inter-organisational networks consisting of different actors are formed as they realise the need to be interdependent and build relationships through a deliberative process to achieve a common goal (Hajer and Wagenaar, 2003):

“Solid work in planning theory demonstrated how planners in concrete situations of conflict relied on interactive and deliberative processes of discovering ends, recognizing other parties, marshalling evidence, and giving reasons, exploring the implications of various value positions, and developing joint responsibility in concrete situations. Such deliberative approaches to public policy emphasize collective, pragmatic, participatory, local problem solving in the recognition that many problems are simply too complicated, too contested, and too unstable to allow for schematic, centralized regulation” (Hajer and Wagenaar, 2003:7).

There are examples of these types of collaborative arrangements, such as the policy issues of Californian water management, which were previously difficult to resolve by the state but produced practical solutions after engaging in collaborative dialogues with stakeholders (Hajer and Wagenaar, 2003). Policy networks of the European Union have also found that new forms of developing policy were successful where networks of public administrators, scientists, experts, NGOs had come together informally to become part of the formal policymaking structures (Hajer and Wagenaar, 2003). The Arctic Council brought together international policy advisors, scientific experts and various community representatives to discuss mutual environmental problems because *“thinking about institutional design nowadays requires sociological input”* (Hajer and Wagenaar, 2003:2).

Another example is found in Hajer’s (2005) paper on the rebuilding of Ground Zero, where in the aftermath of the World Trade Centre bombing, the city had to decide on the best way forward to make decisions about replacing these buildings after such a devastating event. A decision on what to do and what planning process would be suitable had to be made, because it was not a typical event (Hajer, 2005). Therefore the typical policy planning process where the most powerful and influential get their way, could not apply (Hajer, 2005). Those in political power knew that the processes of rebuilding the site had to provide a forum to include the voices of those affected and thus government could not use old, top-down, conventional policymaking methods to address this major crisis (Hajer, 2005). The practical

needs of today's world are thus driving for change in policymaking. This study will analyse the effect of context driven needs in the formulation of the MPP.

Working together through deliberation to solve issues and achieve mutual goals is therefore proving to produce better results than top-down decision-making. The shift in society towards new networks of organisations engaging in deliberative process has led theorists to propose that we now live in a network society (Hajer and Wagenaar, 2003). Manuel Castells (1996:468, in Hajer and Wagenaar 2003:5) states "*networks constitute the new social morphology of our societies, and the diffusion of network logic substantially modifies the operation and outcomes in processes of production, experience, power and culture.*" New networks can become more powerful than their predecessors which causes „shifts“ within networks resulting in the instability of these networks as society structures fluctuate according to the needs and demands of its people (Hajer and Wagenaar, 2003). In this way, the network society has altered the way decision-making occurs today.

Evidence shows that problem solving proved much more effective when there is direct involvement of all parties in the policymaking process which requires an understanding of how different stakeholders frame the situation (Hajer and Wagenaar, 2003). Therefore this study will review the extent to which networks have played a part in the MPP both within and amongst its stakeholder groups.

2.4 The challenges of policymaking in the network society

To analyse politics and policymaking in the network society, issues such the following have to be analysed:

“...the way in which different actors nowadays conceive of politics, which actors participate, what they see as effective political action, how actors frame conflict, and to what extent the classical modernist institutions indeed hamper finding effective solutions to problems people want to see resolved” (Hajer and Wagenaar, 2003:6).

Therefore the challenges and performances of network societies have to be understood to increase the efficiency of decision-making within these networks. Although there are initially no rules for how policymaking should take place in these new spaces, each interested group or

individual comes into the process with their own expectations and rules for how the process should play out and who should be accountable and responsible (Hajer and Wagenaar, 2003). In this study the views and expectations of the stakeholders participating in the MPP process will be examined. It is important to note that although titled the Multi Point Plan by government, the MPP was a process to arrive at a plan to improve air quality in South Durban.

Hajer (2005) uses the concept of „institutional ambiguity“ to understand the uncertainties about what rules should apply in policymaking. Decisions on how the processes of policymaking will be carried out have to be made by the participants of these policymaking processes. In today’s conditions of radical uncertainty in policymaking, *“concrete problem solving, joint responsibility, continuous performance-based and collective learning become potential building stones of a viable alternative strategy”*, (Hajer and Wagenaar, 2003:10). This interaction is necessary if:

“...the traditional forms of government are unable to deliver – either because of a lack of legitimacy or simply because there is a mismatch between the scope of the problem and the existing territorial jurisdictions - then networks of actors must create the capacity to interact and communicate” (Hajer and Wagenaar, 2003:11).

There is a need for new models of conflict resolution as dealing with policy conflicts now requires extensive deliberation and joint responsibilities (Hajer and Wagenaar, 2003). Ostrom (2002:411) highlights some of the challenges that stakeholders face in a shared space:

“The bad news is that when users cannot communicate, don't have trust, can't build it, and don't have rules, we have to expect the tragedy of the commons to occur. The partially good news is that when users can engage in face-to-face discussion--through representatives or directly--and, they have the autonomy to change some of their own rules, they may be able to organise and overcome the tragedy. The long-term success of such a self-organised system depends on whether the institutions they design are consistent with principles underlying robust, long-living, self-governed systems”

Thus by engaging in a deliberative process of policymaking the problems surrounding the shared use of environmental resources can be minimised as all users decide on a common way forward. Therefore groups and organisations are interdependent because they may share the

same interests, spaces or environmental problems and thus recognise the need to collaborate to solve these problems (Hajer and Wagenaar, 2003; Hajer, 2005).

Politics and policymaking in society is much more complex and unpredictable and sometimes only „soft“ evidence is available to solve difficult issues arising in today’s world (Hajer and Wagenaar, 2003). Examples of soft evidence could be beliefs and forms of lay knowledge that need an interpretive and qualitative approach which could pose a challenge for policymakers faced with new issues and a possible lack of capacity. The shifts within the network society also add to that complexity as the boundaries of networks are fluid and undefined (Hajer and Wagenaar, 2003). Governments cannot say they have to wait for appropriate scientific knowledge to be available to make decisions because when an environmental issue arises, there are no set methods or expertise to make the decisions (Hajer and Wagenaar, 2003). Thus policymakers have to be accountable to the demands and complexities of the new network society including recognising various types of evidence or knowledge in decision-making and policymaking.

People also tend to place their own symbolic meanings upon proceedings, as in the case of Ground Zero, where Hajer (2005) describes the event as an attack on a symbolic centre of the global economy, and thus the plans and decisions for the Ground Zero site then also becomes an act of „symbolic politics“. The event had political meaning attached to it and thus needed a particular institutional approach (Hajer, 2005). Diverse cultures and different ways of seeing the world in societies with varied groups and individuals lead to a difference in interests, and thus problem solving becomes challenging (Hajer and Wagenaar, 2003). Hajer (2005) calls this the condition of „multisignification“. Therefore, the new political spaces created by the network society pose various challenges to policymaking.

Hajer (2005) describes how a special public organisation had to be set up to oversee and control the process of rebuilding Ground Zero. Even though the site was owned by a private landowner, the mayor and governor of the city realised that everyone affected by the attack would want a say in the matter (Hajer, 2005). An overseeing committee was set up to engage with all the various stakeholders and to make the process open and participatory so that all „sensitivities“ could be taken into account and “*all sorts of actors could claim the right to have a say*” (Hajer, 2005:447). Therefore the use of an overseeing committee provided a platform for all stakeholders to be heard and to provide their input. There was a public

stakeholder meeting held to democratically include the voices of the city in a meeting called „listening to the city“ where everyone, not only representatives of stakeholder groups, could have a say in the rebuilding of Ground Zero (Hajer, 2005). This was done because “*if Ground Zero was to be an open, participatory process, then the public at large should get the chance to have its say*” (Hajer, 2005:456). The knowledge from the input of all stakeholders was mobilised to inform the decision-making processes to increase the effectiveness of the Ground Zero deliberative processes (Hajer, 2005).

In the traditional ways of governing, the government would undertake set steps to keep society’s trust (Hajer and Wagenaar, 2003). However, “*in the ,new politics‘, in which, typically, actors have to collaborate by transgressing institutional boundaries, trust cannot be assumed*” (Hajer and Wagenaar, 2003:12). However, the new process of policymaking could now provide a forum for independent actors to create trust (Hajer and Wagenaar, 2003). As diverse groups and individuals collaborate to solve an issue they build trust through deliberation. Hajer and Wagenaar (2003) also highlight that joint problem-solving could lead to mutual learning and possibly changes in beliefs and values. Therefore, more than just solving problems occurs as people are now creating new identities (Hajer and Wagenaar, 2003).

Thus the process of policymaking now becomes the site or stage for politics, where people form their political wills, instead of political wills forming policymaking (Hajer and Wagenaar, 2003). Hence, the decision-making processes of policymaking are vital in determining policy outcomes because as stakeholders interact, they are affected by and affect how policymaking occurs. Various participants in a decision-making process have different views on how these processes should be staged. As the MPP was a deliberative, policymaking process set up by national government to make a range of decisions related to the air quality in South Durban, these theoretical concepts regarding the nature of the policy process will provide a conceptual framework for this analysis.

2.5 Democratic policymaking

This section aims to explain why democracy is vital in the decision-making processes of policymaking. The *way* politics is conducted is progressively now becoming the aim of

politics, where the outcomes of policymaking are as important as the rules for how these outcomes are achieved (Hajer and Wagenaar, 2003). The difference between public and private realm of politics is challenged as organisational bodies “*move from the familiar topography of formal political institutions to the edges of organizational activity, negotiations between sovereign bodies, and inter-organisational networks*” (Hajer and Wagenaar, 2003:3). This study aims to understand the rules that the decision-making processes of the MPP followed and also to assess the democratic nature of these rules and processes.

Traditional representative democracy is territorially based, where only representatives of certain groups engage in democratic processes (Hajer and Wagenaar, 2003). This representative democracy is now eroded by the new types of networks that seek to find solutions that are suitable to all involved (Hajer and Wagenaar, 2003). Thus it is found that by including *all* stakeholders, both individuals and groups, in the processes of democratic decision-making, more effective solutions can be created. The MPP was set up with the intention of including all stakeholders. Hajer and Wagenaar (2003) call this an „expansive democracy“ which is defined as

“*...increased participation, either by means of small-scale direct democracy or through strong linkages between citizens and broad-scale institutions, by pushing democracy beyond traditional political spheres, and by relating decision-making to the persons who are affected*” (Hajer and Wagenaar, 2003:3).

Hajer (2005) describes how the deliberative processes of Ground Zero used open citizen participation for more effective democratic decision-making, thus demonstrating that democracy therefore increases with increased and open participation. Democracy is an unfinished project and as policymaking processes occur, they should continually deepen the democratic qualities of all societies (Dryzek, 1996). Therefore democracy can be construed as a *process* which strengthens with practice over time. Participants of deliberative processes partake in those processes to increase the democratic involvement of groups and individuals to tackle uncertainty and social conflict directly and more effectively (Hajer and Wagenaar, 2003). In deliberative democracy, participants take account of not only their concerns but the concerns of others as well, as long as they conform to the goals of justice (Young, 2001).

Democratisation is a process of inclusion of various groups and types of people in political life (Dryzek, 1996). There is a however a big difference between authentic and symbolic

inclusion (Dryzek, 1996). Often policymaking procedures of participation are seen as an „obligation“ and some stakeholders, such as civil society organisations, are given only superficial involvement in decision-making. Civil society is defined as *“all social interaction not encompassed by the state or economy”* (Dryzek, 1996:481). Dryzek (1996) points to the need to include such participants (civil society) into the state to some degree so that they become part of the formal policymaking structures. The effective inclusion of more groups and categories in the polity is central to democratisation:

“Entry into the state can come through organisation as an interest group and associated lobbying activities; participation in policy development and implementation through ongoing negotiation between group leaders and public officials...or enhancing the group's ability to participate in policymaking through changes in public policy” (Dryzek, 1996:475).

However (Dryzek, 1996) proposes that some exclusion in decision-making processes is necessary for the critique and questioning of existing structures and thus democrats should generally favour a state that is exclusive in important aspects, because exclusion, properly arranged, can benefit democracy and democratisation even from the point of view of those excluded (Dryzek, 1996). The reason for this is because pressures for greater democracy almost always come from oppositional civil society, rarely from the state (Dryzek, 1996). Therefore *“if a group leaves this oppositional sphere to enter the state, then dominant classes and public officials have less to fear in the way of public protest”* (Dryzek, 1996:476). These are the dangers of *co-option*, which is defined as *“the process of absorbing new elements into the leadership or policy-determining structure of an organisation as a means of averting threats to its stability or existence”* (Dryzek, 1996:476). Therefore, opposition through exclusion is necessary to challenge the state and to encourage deeper democracy. There is a *“subtle interplay between inclusion, exclusion, the state and civil society”* (Dryzek, 1996:476). In the analysis of the MPP the inclusion of civil society into formal decision-making structures will be assessed accordingly to determine to what extent this may represent a form of co-option.

2.6 Deliberative policymaking

Under the umbrella of governance in the network society there is a need for a deliberative approach to policymaking. If policymaking in the modern democracy is to be practical and adaptive to the variability of relationships of actors within new types of social and political networks, then it has to be interpretive, practical and deliberative and is thus defined as deliberative policymaking (Hajer and Wagenaar, 2003). To meet the aim of this thesis, this literature review will include a discussion of the deliberative approach to policymaking. Examples of deliberation in practice are provided in Section 2.6. Section 2.7 describes Hajer's (2005) principles of deliberation which will be used to analyse the deliberations of the MPP. It is important to note that this thesis largely adopts Hajer's (2005) notion of deliberative democracy as a conceptual framework to analyse the degree of democracy in the policy making process of the MPP.

The deliberative approach uses the concept of „value pluralism“ which is *“the condition in which conceptions of desirable social states are plural and in which the realisation of these conceptions mutually exclude each other”* (Hajer and Wagenaar, 2003). The conception of a good life depends on values proposed by different groups of people to attain that good life (Hajer and Wagenaar, 2003). There cannot be one value that overrides another and thus values are context based as actors choose which values they support in their specific contexts (Hajer and Wagenaar, 2003). The interpretive approach assumes that to deal with value conflict one has to use practical judgment that is problem orientated where people engage with others to achieve their joint practical judgements (Hajer and Wagenaar, 2003). Practical judgement occurs through deliberating and interacting with others where, *“to find their way in such situations, people deliberate”* (Hajer and Wagenaar, 2003:23). When conflicting values occur in deliberative processes it is called „value conflict“ (Hajer and Wagenaar, 2003). In the traditional policymaking values and value conflict were seen as just an expression of feeling, not logic or fact, and thus the concept of value pluralism was not incorporated into policymaking in the past (Hajer and Wagenaar, 2003).

Hajer and Wagenaar (2003) warn against the assumption that all new practices of governance are representative of successful forms of deliberative democracy. Loosely networked forms of governance do not mean a withering away of the state (Hajer and Wagenaar, 2003). The ideals of governance in the network society and democratic deliberative policymaking only

work when the state is there to support these practices. Yet more empirical evidence is needed to enforce these new practices as:

“...experiments sometimes also produce remarkable results and, one may add, we are in need of new systems of governing in an era in which so many of the most pressing problems do not conform to the levels at which governmental institutions are most capable of producing effective or legitimate solutions” (Hajer and Wagenaar, 2003:23).

The aim of this thesis is to interpret the MPP process to ascertain if this is indeed an example of this „new system of governing“. Theorists propose that policymakers should not only aim to find the effective solutions that can conclude decision-making processes but should also aim to:

“...facilitate the citizen’s ... capacity for democratic deliberation and collective learning: about value and preferences, about assumptions of self and others, about mutual dependencies and power differentials, about opportunities and constraints, about the desirability of solutions and outcomes, in sum, about what it means to be an engaged citizen” (Hajer and Wagenaar, 2003:30).

Therefore the state should aim to facilitate greater democratic involvement in policymaking through collaboration. The thesis also aims to determine the extent to which the MPP process was deliberative and did lead to sharing of ideas, learning, and the empowerment of stakeholders.

2.6.1 Deliberation in Practice

New tools have been developed through deliberative approaches to decision-making that seek to involve all stakeholders from various backgrounds to deal with the “*multisignification existing in South Africa’s diverse society*” (Oelofse et al, 2006:75). It is proposed that these approaches to decision-making and policymaking are being developed by innovative intellectual actors in a move towards stronger sustainability in the South African context (Oelofse et al, 2006; 2009). By including stakeholders in decision-making processes, policymaking is moving away from old state controlled procedures to an improved relationship between civil society and state (Oelofse et al, 2006; 2009). This inclusion of all stakeholders should be taking place in all state decision-making processes in accordance with NEMA (National Environmental Management Act of 1998) and the South African

Constitution. Participation should no longer be just a limited and weak legitimising process but an engaging stronger democratic method of successfully addressing social and environmental issues in South Africa (Oelofse et al, 2006).

Atkins et al (2007), provide a case study of arsenic pollution in the water of Bangladesh where deliberation was used to gauge information and derive effective solutions from all stakeholders. Prior to this, the government had failed in its top-down approach to pollution management in the country (Atkins et al, 2007). Policymaking for pollution management needed a pragmatic approach using the practical lived experience of the people affected by this pollution (Atkins et al, 2007).

Knowledge is active through networks and agency and therefore Atkins et al (2007) claim that policymaking needs to be participatory by means of deliberative democracy through citizenship. Participation in pollution decision-making in Bangladesh enabled a sense of ownership and practical management as data collection involved the local people at every stage with their “*street level epistemology*” (Atkins et al, 2007). Participatory Geographic Information Systems (GIS) was used along with qualitative information to set up and monitor arsenic data (Atkins et al, 2007). The community members fed their lay knowledge into the GIS system which then pin-pointed the sources of pollution leakage into the water system (Atkins et al, 2007). Furthermore, this system and its information were accessible to the public through information sharing (Atkins et al, 2007). This study, in turn, will examine the types of participatory technologies used in the MPP.

What mattered in Bangladesh was the development of understanding and trust that was different to the top-down approach that was not successful in the past (Atkins et al, 2007). The top-down approach lacked the understanding and trust of the participatory approach (Atkins et al, 2007). Deliberative democracy needs joint understanding of the issue and the standpoints of all those involved and affected (Atkins et al, 2007). Atkins et al (2007:167), concluded from their study that community based initiatives need “*an enabling institutional environment; a committed approach by donors that is sensitive to local power structures; and the accountability of community and project leaders to their constituents and clients*”. Although transparency and accountability can be initially facilitated by journalism and the media, this openness needs to have consistent pressure from local organizations and policy-makers (Atkins et al, 2007).

2.6.2 Principles of deliberation

Hajer (2005) describes three key dimensions of an environmental policy process: discourse, performance and deliberation. Hajer (2005) states that how we see our reality is formed by our discussions with one another. He therefore defines discourse “*as an ensemble of ideas, concepts and categorizations through which meaning is allocated to social and physical phenomena, and which is produced and reproduces in an identifiable set of practices*” (Hajer, 2005:447). Therefore people use verbal communication to shape their realities and influence other actors to see their point of view.

The second dimension of a policy process is „performance“ (Hajer, 2005). Hajer (2005) proposes that a political process becomes a „performance“ which is enacted or staged by a variety of stakeholders or „actors“ that interactively decide on the way forward (Hajer, 2005). Hajer (2005) points out that in today’s multi-party, deliberative governance processes in the network society, there is a conflict of interests and meanings that are attached to the environmental processes and settings. Therefore different actors understand the political process differently. Hajer (2005) proposes that we have to analyse the way people engage in the discussions of a policy process which includes analysing the setting in which it takes place. Hence settings can be manipulated to achieve a particular result (Hajer, 2005).

The third dimension of a policy process is deliberation where deliberation can be defined as “*the democratic quality of a discussion*” (Hajer, 2005:450). That is where the degree of democratisation is dependent on the deliberative nature of discussions (Hajer, 2005; Oelofse et al, 2009). Therefore democratic deliberations should occur in decision-making processes where all stakeholders can provide their vital inputs (Hajer, 2005). Through the process of discussions, knowledge from all stakeholders can be shared and used to inform better policymaking (Hajer, 2005). In this thesis, the policymaking domain of interest is the environmental domain. To analyse the MPP as a form of deliberative environmental governance, this study will focus on the dimension of deliberation.

Hajer (2005) presents six principles which are necessary to ensure a truly democratic deliberative policy process, namely reciprocity, inclusiveness, openness, integrity, accountability and dialogue. These requirements, presented in Table 2.1, have to be met in order for a deliberative process to be democratic. The degree of deliberation is vital to the

success of any policymaking process (Hajer, 2005). These principles are defined as follows in Table 2.1:

Table 2.1: Principles of Deliberation (Source: Hajer, 2005:450)

1.	<i>Reciprocity</i> : discussions must be conducted through an argumentative exchange, hearing both sides, and responding to one another’s arguments.
2.	<i>Inclusiveness</i> : debates require that „stakeholders“ are made part of the argumentative exchange, and that everyone with a stake can have his or her say.
3.	<i>Openness</i> : the way in which the debate is staged and conducted must avoid unnecessary barriers, including that of (professional) language.
4.	<i>Integrity</i> : the debate requires honesty and no double play.
5.	<i>Accountability</i> : those involved are accountable to political bodies and to the public at large, also with regards to the degree to which the rules as laid out have been guaranteed.
6.	<i>Dialogue</i> : learning through an iterative process in which knowledge is mobilized and enriched through confrontation with a variety of stakeholders and experts”

In the case study of Ground Zero, although there was open public deliberation in the „Listening to the City“ meeting, these deliberations were not followed up by further public meetings. More input into the design processes of the meetings would have allowed for more deliberation, thus allowing for the outcomes to have been “*strengthened by public input*” (Hajer, 2005:462).

Therefore, for deliberation to be truly democratic there needs to be continuous public input at all stages of policymaking. Hajer’s (2005) case study critiques the Ground Zero participatory process as follows:

“Through the absence of a well designed follow-up on the outreach and participatory moments, it suggested that participation and democracy were at best conceived of in terms of exchanging ideas but not as public deliberation, decision making and public accountability” (Hajer, 2005:462).

Truly democratic deliberation is difficult to achieve and the greater the adherence to the criteria listed in Table 2, the greater the quality of democracy. The next section examines some of the challenges to achieving deliberative democracy.

2.7 Challenges to deliberative democracy

This section presents the arguments of Iris Marion Young (2001) as she explains the pitfalls of inclusion and exclusion in deliberative processes, in order to highlight some of the challenges to deliberative policymaking. Young (2001) reviews the stances of what she calls an „activist“ and a „deliberative democrat“ and interrogates their positions on deliberation.

The activist is someone not within the state who believes that protest action enforces positive change through the activities of “*picketing, leafleting, guerrilla theatre, large and loud street demonstrations, sit-ins, and other forms of direct action, such as boycotts*” (Young, 2001:673). The activist believes that through activism others are motivated to act against the issue under protest (Young, 2001). The deliberative democrat on the other hand “claims that parties to political conflict ought to deliberate with one another and through reasonable argument try to come to an agreement on policy satisfactory to all” (Young, 2001:671). For the deliberative democrat, democratic theory should be critical of the activist’s activities as it is seen as confrontational action that would not allow for discussions to address the issue (Young, 2001:673). The proposal from the deliberative democrat is that solutions can be reached through constructive discussions, rather than using protest (Young, 2001). Young (2001) goes on to state that the deliberative democrat believes that reason can be relied on to make a point whereas the activist relies on emotion. Deliberation is understood to be the normal foundation of democracy or the appropriate way citizens should be active in the decision making processes of their government (Young, 2001). However, Young (2001) points out that there are disadvantages to deliberation according to an activist view. Although they both aim to promote justice and righteousness, the activist differs from the deliberative democrat (Young, 2001)

Young (2001) further points out that this deliberation is expected to occur in an existing democracy where often there are huge inequalities in the economic, social and political elements of society (Young, 2001). The activist believes that since the deep wrongs and

injustices that are under protest, are committed by the then social, economic and political institutions, and that the *“the ordinary rules and practices of these institutions tend to perpetuate these wrongs (and) we cannot readdress them within those rules”* (Young, 2001:673). When there is a history of unjust structural inequality as a backdrop to the issue under deliberation, then agenda priorities and the range of alternatives that political actors may consider are constrained (Young, 2001). This is succinctly summed up by Young (2001:684): *“if the deliberative democrat tries to insert practices of deliberation into existing public policy discussions, she is forced to accept the range of alternatives that existing structural constraints allow”*.

Criticisms of past policies of exclusivity have resulted in deliberative bodies making their processes more public and inclusive (Young, 2001). Yet even where deliberation has been made inclusive and open to the public it is still not enough because of the deep social and economic inequalities of society where the *“more powerful and socially advantaged actors have greater access to the deliberative processes and therefore are able to dominate the proceedings with their interests and perspectives”* (Young, 2001:679). In a deliberative democracy it is assumed that the power of certain groups or individuals should not influence the deliberations using threat or force (Young, 2001). However, the activist believes the power of state and corporate actors cannot be controlled in a deliberative setting and that it would be naive for the deliberative democrat to think it could (Young, 2001). The activist believes that the idea of deliberating with those who they are against, especially in a democracy where there are structural inequalities, does not seem to achieve any justice (Young, 2001). In fact it could lead to the silencing of the citizen voice as all interest groups are lead and influenced by the initial dominating party which would have the *“power unfairly to steer the course of the discussion”* (Young, 2001:673). The activist believes those who are sponsored by the state could be motivated by personal gain (Young, 2001).

Another shortfall of deliberation according to the activist is that deliberations are held in settings that may not always be fully accessible to all or where entrance is controlled (Young, 2001). Meetings where deliberations are held are said to be organised with structured procedures and those who know the rules, act within them to achieve their goals, where *“elites exert their power partly through managing deliberative settings”* (Young, 2001:677). By controlling the entrance to these deliberations some of those affected by the decisions that are taken are left voiceless as the powerful make the important decisions (Young, 2001). The

activist claims that in these ways, deliberation with this type of exclusivity is just furthering their power interests. The deliberative democrat, on the other hand, would also agree that any deliberations that are exclusive and non-public are not democratic (Young, 2001:677). Therefore real deliberative democracy calls for:

“...discussion among parties who use the force of argument alone and treat each other as equals. They also require publicity, accountability, and inclusion. To be democratically legitimate, policies and actions decided on by means of deliberation ought to include representation of all affected interests and perspectives. The deliberations of such inclusively representative bodies ought to be public in every way. The people who speak and vote in such deliberative settings, finally, ought to be accountable to their fellow citizens for their opinions and decisions” (Young, 2001:678).

The participants of deliberative processes need to have resources, such as funding, if their efforts to be deliberative occur on a broader scale, e.g. through the media, such as television or radio (Young, 2001). Also, when these deliberative meetings are announced, people who want to have a say in the issue *“need to know about them, be able to arrange their work and child care schedule to be able to attend, be able to get to them, and have enough understanding of the hearing process to participate”* (Young, 2001:680). Access to deliberative processes is therefore a requirement of deliberation, as Hajer (2005) points out under his third principle of „openness“, that the way a discussion is staged should not include any barriers to that discussion. Young (2001) states that not all of those who have a stake in the issue have access or understanding of the issue because of the unevenness in the social, economic and political structure of society and it is for this reason that the process can be deemed unequal and even illegitimate (Young, 2001). This is even more so in the context of a developing country where extreme inequalities occur.

Young’s (2001) conceptualisation of the challenge to deliberative processes is, however, critiqued by Talisse (2005:424) who states that although Young (2001) is *“driven by a concern with the inclusion of voices, concerns, ideas, and problems that are otherwise in danger of exclusion”*, she criticises the deliberation ideal itself, not only the aspects of inclusion that can be improved upon. Young (2001) conveys the message that citizens should be cautious of deliberation within societies that have structural inequalities but Talisse (2005) points out that since most democracies have these inequalities it is a bleak outlook for the

deliberative democrat. Davis and Burgess (2004) explain that not only do stakeholders make judgements about the truth in expert information but also judge the justification in cooperation with these experts. Free, open debate and argument is acknowledged as “*an ideal that ensure decisions are based on persuasion rather than coercion or strategic action, and gain in stability through discussion of all viewpoints*” (Davis and Burgess, 2004:350) Talisse (2005) state that deliberative democrats “*do not only believe and act for reasons, they aspire to believe and act according to the best reasons; consequently, they recognize their own fallibility in weighing reasons and hence engage in public deliberation in part for the sake of improving their views*” (Talisse, 2005:428).

Therefore, the main objection from Talisse (2005) is that the deliberation ideal should not be rejected completely in favour of activism. Talisse (2005) feels that through deliberation, stakeholders can improve on their views to the issue and thus improve on the way the issue is addressed. This is related to Hajer’s (2005) fifth principle of deliberation, where he proposes that through dialogue, knowledge from various stakeholders can be mobilised to more effectively address the problem under deliberation. Even Young (2001) identifies that the deliberative democrat would argue that issues under contest should not be left up to protest alone as making demands to bring solutions as drawing attention to the problem is not enough. (Young, 2001) states that supporters of deliberative democracy aim to drive institutional change in aid of greater justice where the responsible citizen should engage in discussion and argument with those who set up the deliberative processes to ensure that resources and provisions are made available to address the unevenness of stakeholder inclusion (Young, 2001).

Young (2001) has therefore posed the following challenges to deliberation where firstly, the injustices and structural inequalities of societies hinder effective deliberation and issues that inequalities are perpetuated by those structures cannot be addressed within the same structures. Secondly, due to the inequalities in the power of stakeholders in discussions, those who are in positions of greater influence have the power to influence the proceeding for their own gain (Young, 2001). Thirdly, the rules and settings of the deliberative processes are determined by the existing dominating structures and the processes of deliberation can only be managed outside stakeholder agreement (Young, 2001). Finally, the issue of access to the deliberative processes prevents effective discussion as some stakeholders are not empowered to attend meetings as they are hindered by constraints that have resulted from the injustice and

structural inequalities of society. These challenges pose serious questions to the democratic nature of deliberations and should be addressed for the sake of efficient policymaking. Through an interpretive analysis of the deliberative processes of the MPP, these challenges will be assessed to determine the democratic nature of the decision-making processes.

2.8 Civic science

Civil servants, citizens, and private sector actors “*act as „entrepreneurs“ or „problem solvers“ in policy networks of their own making*” (Hajer and Wagenaar, 2003:8). This study on the MPP will analyse to what extent science has played a part in the decision-making processes of the plan. This section therefore reviews the concepts of lay knowledge, civic science and science based policymaking.

Brown (1997) identifies the tensions between government and social organisations with regards to the role of science in policymaking. The cumulative experience of communities has not been acknowledged by government due to the reliance on science and likewise, official scientific data has been rejected by communities due to issues of mistrust (Brown, 1997). Social movements in South Africa have challenged government about political and socio-economic rights, as the environment is now seen as a brown issue which has been reframed around the notions of environmental justice and a rights-based democracy (Scott and Barnett, 2009). Traditional policymaking in environmental management used science on which to base policymaking because it was proposed that complicated and complex problems required science to understand and base policymaking on (Scott and Barnett, 2009). Due to the weaknesses of the traditional forms of policymaking as described by Hajer and Wagenaar (2003), social movements have demanded that social issues be addressed in more democratic ways taking lay knowledge into account (Scott and Barnett, 2009). However, environmental policymaking in South Africa is still largely managed in a „technocentric“ and „managerialist“ way (Oelofse, et al, 2005; Scott and Barnett, 2009).

Scientific knowledge is viewed as objective and unquestionable information and therefore holds much power in policy processes (Scott and Barnett, 2009). Therefore scientific knowledge is pushed to the forefront in decision-making (Scott and Barnett, 2009). However, that would leave the other participants such as community stakeholders in a policy process,

disempowered, as the local knowledge they bring to process is overshadowed by the dominance of scientific information (Scott and Barnett, 2009). To overcome this unequal balance of power in the policy process, community stakeholders of social movements have produced their own form of science - civic science - to empower their positions in the processes of policymaking (Scott and Barnett, 2009). Civic science is the form of „hybrid“ knowledge that community stakeholders have adopted to provide an equal standing in the policymaking process (Scott and Barnett, 2009). Civic science is defined as “*the production of knowledge by lay communities which claims to be framed within scientific methodology*” (Scott and Barnett, 2009).

When citizens are met with poor government policy on environmental hazards that affect them, the response of community organised opposition is to gain better access to resources often through donors. This enables the production of scientific knowledge which is combined with pre-existing lay knowledge, to produce a „civic science“ that works for the communities and not against them particularly in deliberative forums (Brown, 1997). Therefore community stakeholders have incorporated science and their forms of lay knowledge to address these complicated issues in their environments (Scott and Barnett, 2009). Lay knowledge is defined as “*knowledge which is local, „non-scientific“, „hard earned“, „less formally organized“ and related to „self identity“*” (Michael, 1992:323, in Scott and Barnett, 2009:375). Both types of knowledge are used in community organisations where

“Lay knowledge and formal scientific knowledge – civic science – are alternately and opportunistically used in activist strategies and campaigns and in state-initiated deliberative processes for purposes of advocacy and placing issues on the political agenda” (Scott and Barnett, 2009:375).

Therefore lay knowledge and scientific knowledge form the hybrid civic science that has resulted from communities needing to empower themselves due to the structural imbalance of power in traditional policymaking.

Social and environmental movements have used civic science to “*operate opportunistically both „inside“ and „outside“ of formal environmental policy areas, in both deliberative forums and through activist protests*” (Dryzek, 1996; Young, 2001). Scott and Barnett (2009:381) note that instead of only relying on science, social movements have used “*innovative ways of producing and disseminating scientific knowledge to pressure state and capital while at the*

same time validating the lay knowledge of local communities". This knowledge is also innovatively shared with the public for the purposes of education and awareness (Scott and Barnett, 2009). Brown (1997) provides empirical evidence of how social and environmental movements have collected information to analyse environmental problems using concepts of social and environmental justice. Brown (1997:154) states that instead of opposing official experts they (community) become experts through "*increased educational attainment and widespread cyberspace access to resources and communication*". In this way they actively produce citizen science. The case study of arsenic poisoning in Bangladesh by Atkins et al, (2007) depicts how through the use of GIS as an innovative tool of knowledge acquisition and knowledge sharing, the affected community empowered themselves in the participatory decision-making processes of policymaking.

Therefore through the unequal balance of power in policymaking processes of the past, civic science has arisen to empower community stakeholders in social movements. Civic science is the hybrid form of knowledge that includes lay knowledge and science and provides a stronger basis of information and input into policymaking processes that concern them. Social movements have found innovative ways of combining lay knowledge with scientific knowledge to opportunistically strengthen their standing in political decision-making processes. This study aims to analyse the role of science in the MPP where SDCEA as a social movement in South Africa has used various forms of hybrid knowledge in its collaboration in the decision-making processes of the MPP.

2.9 Conclusion

This chapter aims to provide a theoretical framework to frame the research question and analyse the empirical data. Hajer and Wagenaar's (2003) interpretive deliberative policy analysis is adopted here as a method of analysis and the theoretical framework is presented. This chapter began by describing reasons for the shift in policy analysis to more *interpretive* and inclusive forms of policymaking. The traditional policymaking structures of the past have proven unsuitable in today's world of the network society (Hajer and Wagenaar, 2003; Oelofse et al 2009). People are rejecting the science based, top-down and exclusionary policymaking processes of the past as they do not include the voices of all affected citizens. Governance is adapting to the needs of society with respect to social and environmental

justice, and allowing a broader inclusion of stakeholders in environmental decision-making processes. The general citizenry is demanding more inclusive, collaborative, context based, open and accessible forms of policymaking. As people realise the need to work together to solve the complex environmental issues of today's society, they have formed inter-dependencies in problem solving. This new form of governance and decision-making is part of what is now known as the network society. These new forms of governance are not without challenges as the variability and mutability of networks and actors in policy processes affect how policymaking processes are performed. For a policy to be effective in addressing the needs of society, the policy process has to be democratic and inclusive in every respect. People engage in deliberations in a policymaking for effective democratic decision-making.

There are a range of theories related to democratic policy making. Young (2001) proposes that civil society actors can influence policy making from both „inside“ the state, i.e. in deliberative processes, or „outside“ the state through activist activities. Young (2001) lists the challenges which are posed to deliberation ideals from an activist point of view. Deliberations in societies with structural inequalities, imbalances of power, poor access to resources and unfair control over policy process do not lead to democratic decision-making – due to the possibilities of co-option. Activism is therefore proposed to be a route which can deepen democracy. Therefore six principles of democratic deliberation were identified by Hajer (2005) as being necessary to result in democratic deliberation. These are the need for reciprocity, inclusively, openness and accessibility, integrity, accountability and knowledge mobilisation. These principles need to be met in order for a policy process to be deemed democratic and thus effective.

Theory on the creation of „civic science“ by civil society is reviewed indicating that community groups use both lay knowledge and science to empower themselves as they attempt to influence policy making processes. The new forms of governance aim to include the different lay and scientific knowledge's from all stakeholders, however, the reliance on scientific knowledge still dominates deliberative discussions (Scott and Barnett, 2009). Thus the deliberative processes occurring within the MPP will be analysed within these concepts to assess the democratic and deliberative nature of its policymaking processes, and the use of science and civic science in the decision-making processes.

Chapter 3

Background

3.1 Introduction

This chapter provides a context within which to understand the Multi-Point Plan. The South Durban Basin (SDB), or as commonly known, South Durban, lies on the eastern seaboard of KwaZulu-Natal South Africa, extending 24km south from the central business district of Durban down to Umbogintwini (see Figures 3.1 and 3.2) (DEAT, 2007). The SDB is home to heavy industry and business juxtaposed with surrounding residential communities, the consequence of which has led to numerous health and social issues concerning pollution.

Residents of the SDB have been actively involved in the angry protest of such conditions in the post apartheid era and have over the years formed a community organisation in 1996, namely the South Durban Community Environmental Alliance (SDCEA), to represent their concerns. Air pollution emitted from major industries based within the area has been one of the main concerns of and reasons for the protest staged by the SDB residents. A Multi-Point Plan (MPP) policy process was eventually put in place to monitor air pollution of the area leading to the new Air Quality Management Act (Act39 of 2004) (DEAT, 2007). This chapter will describe the history of the study area in Section 3.2 as well as the origin of the MPP in Section 3.3. Section 3.4 provides an overview of the MPP while section 3.5 concludes the chapter.

3.2 Historical background of the study area

The Indian population of Durban which had largely been brought to South Africa as indentured labour was viewed by the colonial and the South African government as a temporary component of society. They were seen as „aliens“, who would eventually be repatriated to India and thus no provisions were made for adequate housing and facilities for these people (Scott, 1992). Municipal trading and health regulations forced the ex-indentured Indian population into the Borough of Durban but away from the central white business district and into the borders of the city forming a „black belt“ of non-white people where *“low income Indians and Africans lived as tenants on both private and state owned cheap land in acutely impoverished living environments”* (Scott, 1992:90).

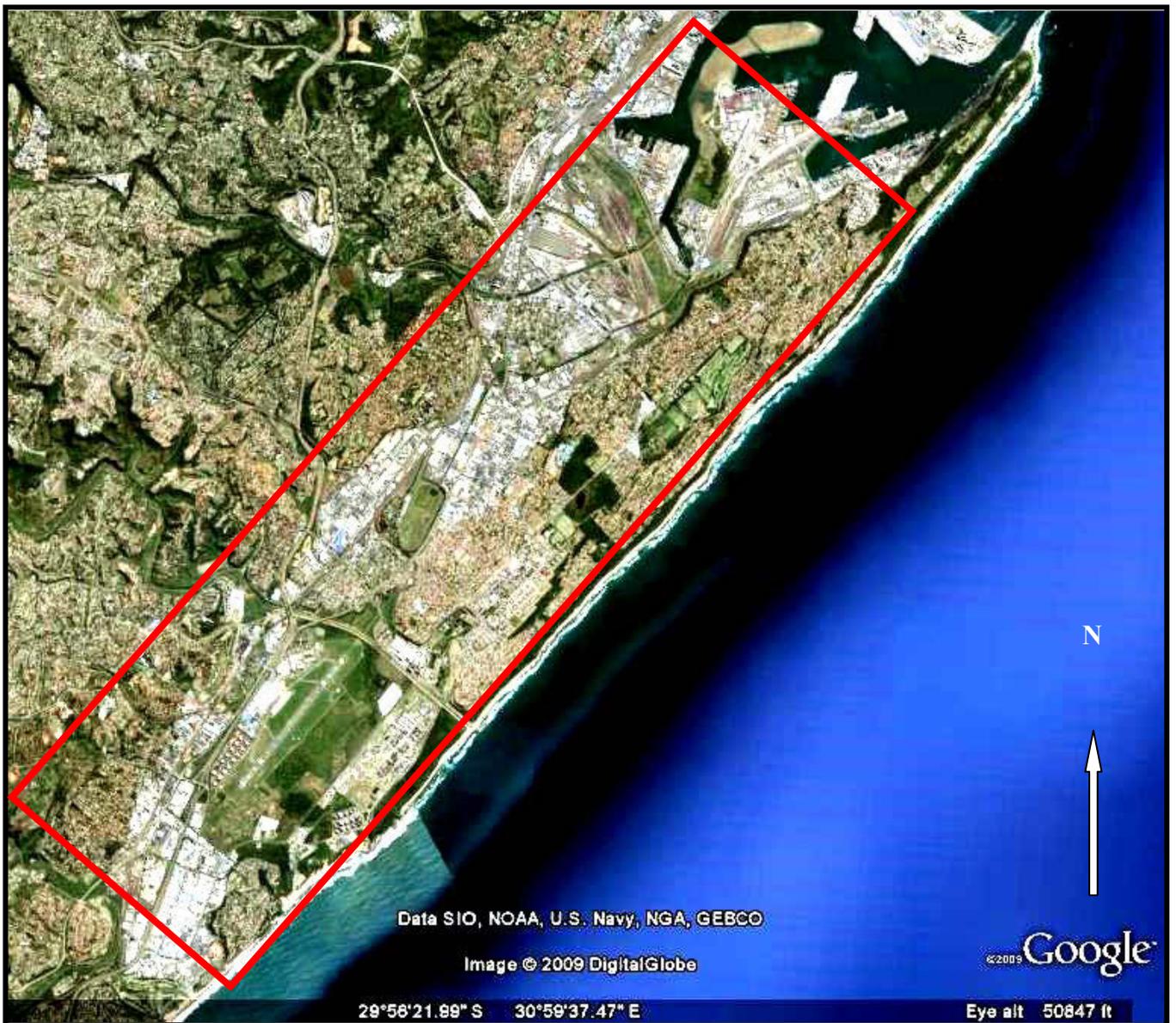


Figure 3.1: Aerial Map of the South Durban Basin (Google Earth, 2009)

Swampy, flat, low lying areas in the south of Durban deemed unsuitable for white habitation were attractive to the Indian population for intensive market gardening and residential use and thus, close-knit communities formed with a wealth of social networks and productive skills that incorporated them into the urban economy (Scott, 1992). The communities founded their own places of religion and community schools, the first being Clairwood Boys School, and eventually they owned land in central Clairwood as this area began to grow as traders flourished (Scott, 1992).

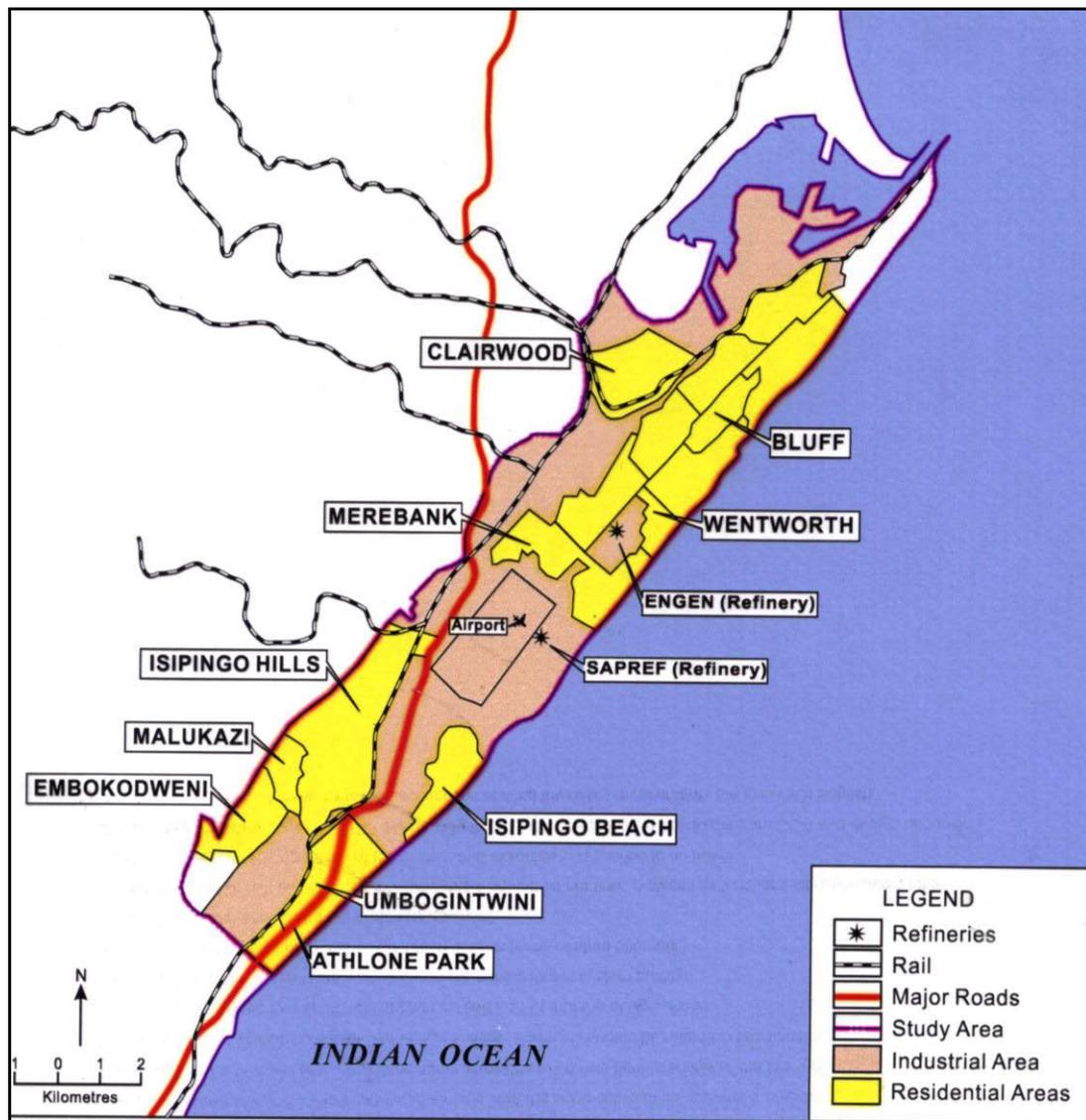


Figure 3.2: Map of the South Durban Basin depicting the residential and industrial land use (Scott, 2003)

The government saw the growing residential small business area as a threat to white domination and plans for capitalist industrial development were set in place to transform the area into the productive core of Durban (Scott, 1992). The municipality had been planning and consistently implementing the industrialisation of the South Durban from as early as the 1920s, and in 1931, a Borough Boundaries Commission, instigated by the municipality, proposed to turn the entire South Durban area into the „the industrial heart of the city“ (Scott, 2003).

Racial zoning was implemented in the 1940s, creating spatially segregated space, as the municipality officially gained control of the land, removing what were deemed informal

residents and creating cheap housing for labour around the emerging industries (Scott, 1992). This type of spatial planning by the then government was an act of environmental racism and social injustice (Scott, 2003). The technological instruments of urban planning and scientific rationalities in the planning of the South Durban were not accessible to communities and hence the *“joining of utopian plans of social engineering to anti-democratic tendencies of the state led to the violation and destruction of an existing way of life and community in South Durban and the traumatic uprooting and removal of large numbers of people”* (Scott, 2003:256).

The SDCEA position paper of 1998 sums up the natural environment in South Durban before industrialisation took place:

“Once the South Durban Industrial Basin was a green area with pristine bush, cultivated land and rivers with fish. Dune vegetation was intact. Mangroves were found in many places, and there were marshes, lakes, forests and many animals” (SDCEA, 1998:2).

Scott (1992) describes how the communities of the south Durban area, with their richly textured society lost their identity because these people who had once built themselves up from post-indenture were now being forcibly removed from the place and space they identified with. The picture painted is one of dire loss and might explain some of the anger that communities of the South Durban basin still feel towards government and industry. People were not consulted and not thought of through the planning and implementation of the industrial phase where Scott (2003) reflects on how the blueprint or „map“ for development of the area was dangerously detached from the people on the ground.

Through apartheid planning the residential areas created around the „productive core“ were Merebank (Indian), Wentworth and Austerville (Coloured) and Bluff (White). These areas are situated cheek and jowl with industry (See Figure 3.2). The community finally resisted as government tried to turn Clairwood, an area seen as the „heart“ of the South Durban Indian community, into a zoned industrial area proposing *“large-scale expropriation of private property, destruction of community-built facilities and sacred places, and the removal of about 40 000 people”* (Scott, 1992:95). The Clairwood and District Residents and Ratepayers Association had formed, and legally objected to these plans but it was a battle that continued from 1956 to 1986 when Clairwood was eventually zoned residential (Scott, 1992). By this

time Clairwood was just a shadow of its former self with a population reduced to only 6000 people living in a neglected, underdeveloped, cramped residential area surrounded by industry (Scott, 1992). Government had by the 1970s, succeeded in turning most of the SDB into the „industrial heart of Durban“.

Today the South Durban area is home to around 300 000 people living in the suburbs of the Bluff (including Bayhead and Island View), Clairwood, Jacobs, Mobeni, Wentworth, Merebank, Merewent, Prospecton, Isipingo and Lamontville extending to Athlone Park and Amanzimtoti in the south (DEAT, 2007). There are also now over 600 industries in the SDB including two of the countries biggest refineries SAPREF and ENGEN, a paper pulp plant Mondi, sugar refinery Tongaat-Hulett, a sewerage treatment works, a cluster of chemical industries, major petrochemical and chemical storage facilities, textile manufacturing, metal smelting, oil refining, breweries, paint industry, motor industry and other smaller industries releasing pollution into the area at a low height (DEAT, 2007).

The SDB is a low lying area surrounded by dunes resulting in the temperature inversions that occur, trapping pollution within the area (DEAT, 2007). With the congested vehicle traffic, a dysfunctional rail service and shipping adding to the pollution of the major industries, the levels of sulphur dioxide (SO₂) amongst other pollutants are of major concern for the surrounding communities (DEAT, 2007).

In current post-apartheid South Africa era, there have been national planning policies such as the national Growth Economic and Reconstruction (GEAR) and the Spatial Development Initiatives (SDI), formulated to place the country within the global economy (Scott, 2003). At the local level, the implementation of the Integrated Development Planning (IDP) Framework in Durban has led to large-scale urban reconstruction and development (Scott, 2003). The SDB also known as the South Durban industrial zone, has now been identified as a Spatial Development Zone (SDZ) because of the economic potential of the area and the SDI (Scott, 2003). An Inner City Plan has put forward proposals to expand industrial activity corresponding to the port of the SDB as it is *“not only the largest in Africa, but is viewed as a key distribution node in the global economy linking the developed nations with the emerging Asian markets”* (Scott, 2003:235). However, Scott (2003) highlights that the proposals for the reindustrialisation of the South Durban has similarities to the top-down approach of the previous industrialisation of the area from the 1940s. Thus the new wave of industrialisation

has therefore been met with resistance from civic organisations who fight for a cleaner environment and inclusion into the planning processes of government development proposals for the area (Scott, 2003).

3.3 Origin of the MPP

This section describes the origins of the MPP as a process and the events leading up to its initiation. People in South Durban protested about the pollution and ill health effects they were experiencing and also the “*poor operating practices by industry and lagging reactive legislation which put the community at risk as a result of industrial accidents and inadequate emergency plans*” (DEAT, 2007:9). Elevated SO₂ concentrations are associated with respiratory problems and during the 1960’s, the Centre for Scientific and Industrial Research (CSIR) recorded SO₂ measurements for the entire country and found the SDB to be an area of concern (DEAT, 2007). It is clear that the SDB area was in need of a pollution management and air quality monitoring plan. Scientific knowledge developed by the communities (civic science) helped community groups to mobilise and actively start to tackle the air pollution problem.

The Merebank Residents Association, formed in 1964, and was “*one of the first organisations in South Africa to take on urban environmental issues raising concerns about industrial expansion and increasing pollution levels in the area*” (DEAT, 2007:9). Later, the South Durban Community Environmental Alliance (SDCEA) formed in 1996, and as a community organisation made up of 14 affiliates organisations, has been vocal and vigilant in terms of lobbying, reporting and researching industrial incidents and accidents (SDCEA, 2004). groundWork an internationally recognised environmental justice Non Governmental Organisation (NGO), has also been actively campaigning for the previously disadvantaged communities of the SDB against the pollution from industries (DEAT, 2007).

Industries recognised the need for liaison committees as community awareness increased and the pressure was put on industry to „clean up its act“ (DEAT, 2007). The need for more SO₂ measurements was recognised and a South Durban SO₂ Management System Steering Committee was formed in 1994 including representatives from industry, local and national government and the local community (DEAT, 2007). A „polluter pays“ principle was used to

source funds from industry when they exceeded more than one ton of SO₂ per day and the fees were used to set up a monitoring network with four SO₂ monitoring stations established at Wentworth, Southern Sewage Works, AECI and Athlone Park (DEAT, 2007). After changing its name to the eThekweni Air Quality Management Association, due to the recognition of the need to measure more pollutants than just SO₂, the location of monitoring stations changed according to the areas of concern and highlighted the need for a more expansive monitoring network (DEAT, 2007).

SDCEA as a community organisation has done much work for the cause of pollution reduction and social and environmental improvement of the area. Scott and Barnett (2009) highlight the work that SDCEA has accomplished among the former Coloured, White and Indian residential areas. SDCEA has unified the community of the SDB:

“Building on the historical experiences of political activism in the black communities of South Durban, SCEA has set out to counter the contemporary impacts of industrial expansion by mobilising communities in South Durban across race and class lines, as well as networking with international organisations and funders” (Scott and Barnett, 2009).

SDCEA is now the largest environmental movement in South Africa and has had the greatest influence as a community organisation (Scott and Barnett, 2009). Through advocacy and lobbying SDCEA has challenged local government and industry to improve the social and environmental impacts of pollution which has led to social injustice in the area (Scott and Barnett, 2009).

There were many complaints about odours, chemical leaks, flares, visible emissions and a health concerns expressed by the SDB communities and highlighted by newspapers, articles and community research (DEAT, 2007). In a study in 1994, school children from a primary school in Merebank suffered around three times more respiratory illnesses compared to children at a Chatsworth school (DEAT, 2007). The Mercury newspaper released a series of articles about the health study and pollution issues in South Durban where the journalist Tony Carnie had gained access to community information through SDCEA and *“published his findings in a series titled „The Poison in our Air“, which consisted of five front-page articles in the Mercury, during the week of 11-15th September 2000”* which brought much attention to the area” (Scott and Barnett, 2008:378). With the ever increasing emissions of pollution and

increasing vehicular transport the City Health Department recognised the problem leading to a DAEA (Department of Agriculture and Environmental Affairs) report being forwarded to the former Minister of Environmental Affairs and Tourism Mr Mohammed “Valli” Moosa (DEAT, 2007).

3.4 The MPP

The „Multi-Point Plan“ was formulated and finalised on the 27th November 2000, as an approach to address the air pollution problem in South Durban (DEAT, 2007). Although called the Multi-Point Plan, the MPP was at the outset, a plan for a process that would achieve a range of outputs through a participatory process. A task team was set up in May 2000 which integrated all levels of government to address the issue and formulate an action plan with time frames to address the way forward (DEAT, 2007). This action plan is a policy process. It included a debate with representatives from government, industry and the community to address the way forward (DEAT, 2007). The MPP is described by the NILU website (2004) as an intergovernmental process or an air quality monitoring network that uses monitoring stations to measure pollutants in various locations in the SDB and surrounding areas.

The MPP budget of R29 million is sourced with R10 million from industry (based on the polluter pays principle), R17.7 million from the three spheres of government and the balance from international funding from the Norwegian Agency for Development Cooperation (NORAD) (obtained through DEAT) with a R4 million annual running cost provided by the eThekweni Municipality (DEAT, 2007). The MPP was a five year collaborative process to monitor and improve the air quality of South Durban and to inform the new Air Quality Act of 2005.

3.5 Conclusion

This chapter set out to describe the context of the study. It presented the historical background to the area and described the origins of the MPP. The history shows that the area had been densely settled by ex-indentured Indian settlers who lived and farmed in the area, and who were, with other groups settled in racially separate residential areas around the industries in the apartheid period. The background to the MPP was briefly discussed to provide a basis for

its analysis. The SDB is described as an area of obvious contradictions. Once a developing residential area, the previous government planned that the SDB would become industrialised. The racial planning of the industrial-residential mix in the apartheid era, combined with topographical and meteorological factors have led to unacceptable levels of pollution for the SDB communities. There was a need for drastic changes and an air monitoring plan and decision-making process that included the voice of the community. The MPP was set to be a collaborative and inclusive environmental management process to make decisions, that incorporated all stakeholder views and information that would be to the achievement of a range of outcomes. Thus the „plan“ was the list of „points“ that were stated as goals at the outset and was not a document. It was meant to be a deliberative decision making process that could set a precedent for future management plans for the country.

Chapter 4

Methodology

4.1 Introduction

The study adopts a qualitative approach and can be classified into what Mottier (2005) describes as the „interpretive turn“ in social science research. The interpretive approach to policy analysis looks at the “*the analysis and construction of meaning, of the ways in which people make sense of their everyday activities and surroundings*” (Mottier, 2005:3). This research project is a focused and intensive case study and is qualitative in nature. Mottier (2005) proposes that subjective knowledge that is employed in a qualitative study can be construed as concrete knowledge because subjectivity is based on a researcher’s existence in the world as they know it. Therefore subjective knowledge is real through, and not despite, its positionality in the context of here and now (Mottier, 2005). Knowledge is context-based or has a „situated“ nature and thus the positionality of the researcher is based within that situation or context (Robinson, 1998). Thus through the statement of the position of the researcher, an analysis of the researched can be made (Robinson, 1998). Therefore for the purposes of this dissertation, the conclusions that will be drawn will be based on the qualitative interpretation of the context-based knowledge collected.

The data was collected in a natural setting in an attempt to interpret and analyse facts and how people bring meaning to these facts (Mottier, 2005). Case studies are mostly qualitative in nature, studying a particular phenomenon that occurs within a time and space and can be studied in depth within a range of perspectives (Kitchen and Tate, 2000). The case study in this research focuses on the Multi-Point Plan as an example of deliberative decision-making in the environmental sector. This chapter describes and explains the use of secondary and primary data that are used in this study. The data was collected to answer the specific objectives of this study as well as to provide a background to the study. Section 4.2 presents the sources of data and Section 4.3 describes the methods of data collection. Section 4.4 describes the sampling method, while the interpretation of data will be discussed in Section 4.5. The limitations to the study will be described in Section 4.5. The chapter will then be summed up in the conclusion in Section 4.6.

4.2 Sources of data

The secondary data collected for this study was used to construct the theoretical framework for the research. Literature on policymaking, networks and governance, deliberative decision-making, democracy, activism and civil science are reviewed as the secondary data for this study. Relevant books and online journal articles are used as the basis of the secondary data and provided a conceptual framework through which the results of the study will be analysed. Theory provides a set of concepts and ideas that help explain and define specific facts of the topic studied (Kitchen and Tate, 2000).

Primary data for this study was collected from documentary evidence and face-to-face interviews. Data collected involved the use of intensive, semi-structured open-ended question interviews and the collection of documentary evidence. Qualitative data used in this study is described and interpreted in order to understand people's experiences and the meanings they attach to their realities (Kitchen and Tate, 2000).

4.3 Data Collection

Two types of data were collected for this study, namely, oral data derived from interviews and documentary data, and they are discussed in the sections below.

4.3.1 Interviews

The interviews undertaken were semi-structured and open-ended as based on the description by Kitchen and Tate (2000), where set questions were asked according to the purposes of the study but which allowed for responses and answers to be given that were not strictly limited to a set of categories provided by the interviewer (Kitchen and Tate, 2000). Open ended questions help reflect what the respondent is thinking or feeling about the topic (Kitchen and Tate, 2000). Unlike structured questionnaires that produce quantifiable information, the semi-structured interview *“allows a more thorough examination of experiences, feelings or opinions that closed questions could never hope to capture”* (Kitchen and Tate, 2000: 213).

Interviews for this study were conducted in the time period from October 2009 – November 2009. Telephone interviews were a practical alternative when there was difficulty experienced in setting up an interview to meet face to face. Interviews were voice recorded and notes were

taken at the interview. Table 4.1 illustrates the stakeholders that were contacted for an interview for this study. Some stakeholders that were contacted were unavailable for the interview. Table 4.2 presents the list of respondents that were interviewed for this study. Respondents number 5 and 8 (Judy Bell and Bobby Peek) were interviewed telephonically as they were based outside of the city of Durban.

Interviews seek to uncover meanings and beliefs, through entering into and maintaining a conversation, they are therefore more informally administered (Kitchen and Tate, 2000). The semi-structured interviews undertaken here provide a broad agenda of questions on which relatively informal conversations were based. The structure of the interviews was based on the objectives of this study where questions were asked about the establishment of goals and structure, the decision-making processes, the degree of deliberation and the role of science in the MPP (See Appendix).

Table 4.1: List of MPP Stakeholders contacted

Name	Position	Organisation	Response	Interview set
Mr Siva Chetty	MPP Manager	Government	Yes	Yes
Mr Lee D'eathe	SDB ABM (Area Based Manager)	Government	Yes	Yes
Mr Bruce Dale	SDB Permits	Government	Yes	Yes
Mr Neil Larratt	eThekwini Health department	Government	Yes	No
Mr Tim Fasheun	Department of Agriculture and Environmental Affairs	Government	No	No
Ms Mazwi Lushaba	Department of Environmental Affairs and Tourism	Government	Yes	No
Mr Dixon Lowe	Sapref	Industry	Yes	No
Mr Rafiq Gafoor	Mondi	Industry	No	No
Mr Ian Naidoo	Natal Portland Cement	Industry	No	No
Ms Judy Bell	Ex-Tioxide	Industry	Yes	Yes
Mr Rory O'Connor	SDCEA	CBO	Yes	Yes
Mr Desmond D'Sa	SDCEA Chairperson	CBO	Yes	Yes
Mr Bobby Peak	groundWork	NGO	Yes	Yes
Mr Tony Carnie	The Mercury	NGO/Media	Yes	No

Table 4.2: List of Respondents interviewed

	Name	Position	Organisation	Date
1	Mr Siva Chetty	MPP Manager	Government	21/10/09
2	Mr Bruce Dale	SDB Permits	Government	21/10/09
3	Mr Rory O'Connor	SDCEA	CBO	22/10/09
4	Mr Desmond D'Sa	SDCEA Chairperson	CBO	30/10/09
5	Ms Judy Bell	Ex-Tioxide	Industry	09/11/09
7	Mr Lee D'eathe	SDB ABM (Area Based Manager)	Government	09/11/09
8	Mr Bobby Peek	groundWork	NGO	18/11/09

4.3.2 Documentation

Documentary sources provide valuable insight into the structures and mechanisms at work in the phenomenon under study and can range from “*literature to government and quasi-government reports, academic studies and the „unofficial“ reports of interested and affected parties*” (Kitchen and Tate, 2000:226). The literature sources provide a detailed insight into the “*geographical imagination of the writer and her or his characters within the context of an area*” (Kitchen and Tate, 2000:227). Furthermore, the official documents like the government reports provide “*detailed accounts of how individuals and institutions thought and reacted to certain geographical contexts*” (Kitchen and Tate, 2000:227). Various forms of documentation were collected through the duration of this study from March 2006 to October 2009. Documentary data on the MPP includes reports, newspaper articles, booklets, pamphlets, newsletters and online World Wide Web information.

4.4 Sampling

The sampling method used for the interviews and documentation collection was purposive as the evidence from both sources was deemed to be of particular interest to the study (Cloke et al, 2004). Robinson (1998:29) defines purposive sampling as the “*selection of „typical individuals“; more usually known as the case study approach in which, for example, a „typical“ place is selected for study because it is believed to possess particular characteristics*”. Within a qualitative approach, small samples of interviews are acceptable as they provide the information specific to the research context Sayer (1984). Through email, initial contact was made with the manager of the MPP Siva Chetty and he provided some

relevant documentation of the MPP. This information provided the basis for the identification of the main role-players in the MPP and thereafter the method of snowballing was used to select respondents. The DEAT (2007) report on the MPP provided email addresses for the main stakeholders involved in the MPP. The co-author of the DEAT (2007) report on the MPP, Ms Lisa Guastella, was contacted through email and provided a list of main stakeholders involved in the MPP. I then contacted all the stakeholders through email where I provided a short description of the study and a request for their participation in this study through interviews. Difficulty was experienced in getting government officials to participate in the study.

4.5 Data Interpretation

Following Dey's (1993) approach in Kitchen and Tate (2000), documentary and interview data was interpreted through a qualitative approach using a process of categorisation and connection. Kitchen and Tate (2000:230) use Dey's (1993) analogy of an omelette to describe qualitative analysis where, "*just as you cannot make an omelette without breaking and then beating the eggs, you cannot undertake data analysis without breaking down data into bits and then „beating“ the bits together*". Through description, classification and connection, qualitative analysis aims to interpret meanings and to explain and understand the data (Kitchen and Tate, 2000).

Data analysis began with a foundation of descriptive data that was then classified and connected to "*determine the interconnections and relationships between data, and to tease out the ways in which to reconceptualise (the) constituent bits*" (Kitchen and Tate, 2000:230). The description of qualitative data involves an in-depth observation of the situational context in which the data was collected and the intentions and meanings of actors (Kitchen and Tate, 2009). Interviews for this study were recorded and notes were taken. Notes or „memos“ form informal codes and mark the beginning of descriptive data interpretation (Kitchen and Tate, 2000). Descriptive data was also sourced from the documentary evidence. Descriptive data formed the basis of the data analysis which was then classified and interconnected.

Classification aims to interpret and make sense of data by categorising data into its constituent parts (Kitchen and Tate, 2000). Data was therefore broken up into categories for comparison

and connections. Formal connections were made through a process of coding data according to specific criteria using „databit“ code numbers and by placing similar codes into master categories as described in Kitchen and Tate (2000). Therefore, the categories form umbrella themes under which data can be analysed. The four themes or categories that emerged from the data were; the goals and structure of the MPP, the decision-making processes, the degree of deliberation and the role of science. It must be noted that the interview schedule was ordered purposively to structure the questions in order to provide answers for the research questions (objectives). Data was sorted and organised further using splitting and splicing where data was reassessed and split into smaller interrelated categories under each master category. Kitchen and Tate (2000:245) refer to the splitting as a “*task of refining the analysis of the data by subcategorising databits within a sorted category*” An example of the subcategories of a theme in this case study are: „The dominance of science“, „Civic science“ and the „Health study“, which form subcategories of „The role of science“ theme. Splicing refers to the linking of related data between the subcategorised data for the purposes of reflecting their relationships to each other (Kitchen and Tate, 2000). Thus splitting and splicing helps obtain a deeper interpretation of data, where, “*while we split categories for greater resolution and detail, we splice categories for greater integration and scope*” (Kitchen and Tate, 2000:246).

Connections look at the relationships, associations and interactions between the classifications made between the data (Kitchen and Tate, 2000). This is achieved by interrogating the data for recurring patterns (Kitchen and Tate, 2000). Data of this study was therefore interrogated for links and connections between the categories. Kitchen and Tate (2000:247) state that linking and connecting data tries to “*identify and understand the nature of relationships between data: how things are associated and how things interact*”. Therefore data was interpreted through linking and connecting data, as Kitchen and Tate (2000:251) state that qualitative data analysis requires the researcher to “*think laterally and connect data together in meaningful ways, despite the lack of explicit links*”. An example of a connection made in the data is the link between the categories of „the decision-making processes of the MPP“ which helps to explain the meaning of „the role of science“. Therefore qualitative data interpretation relies on judgments to be made about the categorisations through linking and connection (Kitchen and Tate, 2000). Data thus had to be corroborated and cross-checked to ensure that the conclusions made were based on evidence collected and were therefore valid. Data was linked to theory both in the results and conclusions drawn.

4.6 Limitations

This study began in 2006 which was six years after the MPP began. This could have affected the responses from the interviewees as time may have altered their perceptions of events. There were also some difficulties experienced in receiving and securing interview times through email as respondents were busy with their work obligations. Industry representatives did not respond to any emails. Mr Dixon Lowe from SAPREF industry and Mr Rafiq Gafoor from MONDI did not respond to any emails and thus only one stakeholder from industry was interviewed for this project i.e. Ms Judy Bell. National government stakeholders: Mr Tim Fasheun; Ms Mazwi Lushaba and Mr Neil Larratt were also unable to participate at the time of the study. The minutes of the meetings were difficult to access and of the few meeting minutes that were accessed, the information was deemed to be of little or no use for the purposes of the research. Therefore this study relied mainly on the *interpretations* of the processes of the MPP made by the main stakeholders interviewed and on documentary data. Mention must also be made that although documentary data was analysed for the views of industry, there was only one representative from industry *interviewed*. The interpretation of the deliberative process presented in the results must thus be viewed in this context and seen as an interpretation with little access to the views of industry. It is also important to notice the lack of interest among the industry stakeholders in participating as only one stakeholder responded. The interpretation therefore presents a view of the deliberative process of the MPP largely from the community and local government view point.

4.7 Conclusion

The methodology used in this study is qualitative and interpretive. This chapter has described the types of secondary and primary data that was collected purposively for the requirements of this study. Primary data collected was the documentary evidences and the interviews while secondary data collected were books and journal articles. Structured interviews and collection of documentary evidence were the two methods of data collection used though the purposive sampling of respondents and documents. Data was analysed qualitatively using an interpretive approach through description, categorisation and connection for the purposes of answering the objectives of this study. Themes and sub-themes were identified in the data. The results of the data analysis of this study will be presented in the next chapter.

Chapter 5

Analysis and Interpretation

5.1 Introduction

This chapter presents the analysis of the primary interview and documentary data collected for the purposes of this study. It is to be noted that the empirical data collected from the respondents relates to the participatory process of the MPP and not to the outcomes of the process. Data will be analysed in five themes to answer the four objectives of this study. The first theme in Section 5.2 will explain the establishment of the goals of the MPP. The second theme in Section 5.3 will explain the structure of the MPP. The third theme, in Section 5.4, describes the decision-making processes of the MPP. The fourth theme in Section 5.5 will assess the degree of deliberation by applying Hajer's (2005) principles of deliberation. The fifth and last theme in Section 5.6, analyses the role of science in the MPP. The analysis of each theme has been undertaken via the application of the theoretical framework presented in Chapter 2. The section will be concluded in Section 5.7 where results from the data analysis will be summarised.

5.2. Establishment of the goals of the MPP

This theme presents stakeholders views of the establishment of the MPP goals. The three sub-themes that emerged from the interpretation of the data are: „the old policy was inappropriate“, „response to high pollution levels“ and „aims of the MPP“.

5.2.1. ‘The old policy was inappropriate’

Although the aim of the thesis is to examine the processes that led to formulation of the current air pollution legislation, it is interesting to discover that stakeholders referred to the past in order justify their comments about the more recent decision-making processes. In the discussion of the goals of the MPP, there is evidence of much reflection on the part of the stakeholders that „the old policy was inappropriate“. The Air Pollution Prevention Act (Act 45 of 1965) was the previous legislation on air quality in South Africa before democratic change in 1994. National government was responsible for the Act and it was managed at the national level. National government managed the regions without any input from local stakeholders, and “policy was made behind closed doors in the past...it was a very hierarchical, pyramidal

and technical approach with little participation” (Bobby Peek, 18/11/09). Therefore, the previous policymaking process was top-down, as explained by Hajer and Wagenaar (2003) and Oelofse et al (2006, 2009), who state that traditional policy making was positivist and technocratic with government making policy decisions without stakeholder inclusion and input.

The Air Pollution Prevention Act was not context based as “it was constructed in Pretoria, divorced from the local conditions and local input” (Siva Chetty, 21/10/09) and along with that, “the issues were being dealt with at a national level, not were the problems which were occurring locally” (Bruce Dale, 21/10/09). There was no access to information as

“At that stage, a lack of information was available, such as, monitoring data, meteorological data, especially from government’s perspective, so there was a need for management and provision of data...it was just a matter of a pollution officer from Pretoria coming down saying that they were dealing with the industry but not yet heard what was going on” (Bruce Dale, 21/10/09).

The former air pollution policy was also exclusionary where “there was a „hands off“ approach even though people were dying in the SDB” (Rory O’Connor, 22/10/09). This exclusionary approach is typical of the previous policymaking approach, as described by Hajer and Wagenaar (2003), who state that the traditional policy analyst elites, far removed from the citizens’ voice, would produce what they perceived to be technical and economically efficient solutions to the problems of society. Therefore, it can be assumed that the unhindered economic growth of the SDB took place due to the focus of national government on economic growth of industry, with no air quality management due to the inadequacies of the previous Air Pollution Prevention Act (Act 45 of 1965).

The SDB was, and still is, key to national economic development in South Africa and the dominant assertion by the stakeholders was that industry was protected by the former air pollution policy which has led to the on-going pollution in the SDB. Industries were all powerful and not required to make their information on emission outputs available as seen in the following responses:

“Most of the information was held in the hands of the Nationalists, obviously they were aware of the pollution but that information was never given to the community groups” (Siva Chetty, 30/10/09).

“Industry wanted to expand...they kept their plans secret...they didn’t have to ask permission...they could do whatever they wanted” (Judy Bell, 09/11/09).

“...they (government) could have yanked the industries permits a long time ago...the South Durban Basin is of strategic national significance...you have special protective legislation just to make sure that nothing happens to industry, so they are looked after, they sort of babied-babied...if you are a national key point (industry) you’ve got a totally different attitude to the general citizenry...they always were capable of having that senior relationship (with government) at a senior level...they always had power open to them and we’ve (the communities) never had that” (Rory O’Connor, 22/10/09).

Thus, the former air pollution policy had failed in the management of air pollution in the SDB as it was top-down, exclusionary and not based on local conditions or context. There was no public access to information and the industries were protected while the communities were ignored. This type of policy was therefore not only an example of positivist, technocratic policymaking, as defined by Hajer and Wagenaar (2003), it was also undemocratic. Dryzek (1996) states that democracy exists with the inclusion of various groups and categories of people in political life. With lack of control over the industrial pollution of the SDB, the communities began to actively protest in the mid-1990s and demand attention to the issue of air pollution and health. Thus government responded to the community’s outcry for a new policy to improve pollution management.

5.2.2. ‘Response to high pollution levels’

The second predominant response to the question of the establishment of the goals of the MPP is the sub-theme that the goals were a „response to high pollution levels“. The communities of the SDB had protested about the high levels of pollution in their area for many years as described in Chapter 2. Public protesting and frequent media reports provide recognition of the problem of the high pollution levels in the area. This is highlighted in the following response:

“The MPP was a result from long standing local government and local community concerns. The SDB has a plethora of industries and chemical processes and the airport and port which lends itself to a fair amount of emissions” (Siva Chetty, 21/10/09).

Desmond D’Sa further argued that from the community side:

“We were fighting with industry on the backdrop of people getting sick and dying...we knew that the only way we could fight is straight from the top...and we said no, no longer can we continue here...there was a collective outcry from community as it was discovered that there were many people dying of cancer and leukaemia...we brought huge media attention” (Desmond D’Sa, 30/10/09).

Desmond D’Sa is referring here to the 5 day front page series on Pollution in South Durban that appeared in *The Mercury* in September 2000 (Scott and Barnett, 2009). Therefore, news

of the air pollution and the effect it was having on the health of the communities in the SDB put pressure on government for a response which then in turn resulted in the initiation of the MPP by national government. Thus through the protest and activism of SDCEA, government was motivated to take action. Young (2001) proposes that through activism, others are motivated to act against the issue under protest. The media also fuelled the politics around the pollution issues. Hajer and Wagenaar (2003) state that the media in today's society, can now more effectively drive political issues and this is what happened prior to the setting up of the MPP.

There were various other institutional structures in place that were trying to involve local stakeholders in the environmental decision-making processes of the SDB before the MPP came into being. These were the National Environmental Management Act (NEMA) Act 107 of 1998), Durban's Local Agenda (LA) 21 process, and a Social Environmental Assessment (SEA) commissioned by the Durban Unicity³, that were being implemented and undertaken. These processes were deemed to be ineffective however as the following response suggests:

“At the time LA 21 and SEA and NEMA 1998 were up and running but there were still pollution issues...government themselves didn't quite know how to handle what they've written, because if you read the principles of NEMA, and you look at what government is supposed to be doing in terms of how decision making occurs, quite clearly that hasn't been happening” (Rory O'Connor, 22/10/09).

It is suggested here that this was partly a result of the complexity, instability and contested nature of the problems in the SDB. Hajer and Wagenaar (2003) suggest that problems, such as the impact of air pollution on health, are too difficult to solve by centralised or top-down regulation and therefore need joint collaboration through deliberation. When government is unable to deliver then networks of actors must engage in joint problem solving to address the issue (Hajer and Wagenaar, 2003). The MPP was said to bring a central purpose to the processes of discussion as the response from the SDB Area Based Manager (ABM) states: “the MPP...being required to now look at air pollution but it (the previous discussions) started with separate plans without the one objective” (Lee Deathe, 09/11/09). This means that the separate plans of air pollution management were now all brought together with one objective in the form of the MPP. Therefore the MPP was meant to create a focus on the objective of air pollution management.

³ The South Durban Strategic Environmental Assessment was submitted to the then Durban Unicity in 1999.

In 1994, the former president of South Africa Nelson Mandela had come to visit the refineries in South Durban to open the new extension to the ENGEN refinery. He was confronted with the community protesting at the ENGEN gates and stopped to hear the concerns of the community as shown in the following report: “Mandela...stopped at the protests...he heard the community views and was not told about these problems by ENGEN...he sent Bantu Holomisa to investigate which created the political will (to attend to air pollution problems) when before there was none” (Judy Bell, 09/11/09). Bantu Holomisa, who was then the Deputy Minister of Environmental Affairs, responded strongly by threatening “to close refineries down. But he didn’t last long in that position, but he brought attention to the issue” (Rory O’Connor, 22/10.09).

The directive for the MPP was finalised by the former minister of Environmental Affairs, Vali Moosa: “he came onto the scene and announced the MPP and it was the first we (the communities) had heard of it” (Rory O’Connor, 22/10/09). As the communities had been struggling to get the state to recognise the pollution problem in Durban for some time, the decision by government to go ahead with the MPP was a surprise for the civil society organisations, as they had not been consulted about or informed about of this proposed process at all. Another interesting response highlighted that the MPP was a political „knee jerk“ response from government which reacted mainly to protect itself:

“It (the MPP) was a knee jerk reaction about the pollution and results...there were two goals to the MPP...how to keep community quiet...then how do they (government) protect themselves legally...they had to show they were doing something...they also had to actually do something to be able to get some good management in the air...It was the political response of politicians being outsmarted...it occurred after apartheid planning...the air pollution was proved and needed a response” (Bobby Peek, 18/11/09).

In the statements above, the communities and NGO claimed that the reaction by government was to protect themselves since the MPP sought to engage the communities affected by the air pollution. Dryzek (1996:476) explains that if “*a group leaves the oppositional sphere to enter the state, then dominant classes and public officials have less to fear in the way of public protest...these are the dangers of co-optation*” (Dryzek, 1996:476). This interpretation therefore views the MPP as a process of co-optation, a process whereby opposing activist organisations would be drawn into a deliberative process with the state. Peek’s (18/11/09) response above reflects antagonism toward the processes of the MPP which will be discussed further in the following sections.

Therefore, the MPP was the response of government to a public issue – that of the impact of air pollution on health and community well-being: “With community outcry and media involvement, the new government needed an integrated approach. The MPP was established as a response to this outcry: “the MPP heard the cries of the community and the various stakeholders” (Siva Chetty, 21/10/09). This positive response contradicts Peek’s more negative and critical interpretation of the establishment of the MPP. These different responses among stakeholders could be interpreted here in terms of their positions in the process. Chetty, being the appointed manager of the MPP process, would be more likely to present a positive view as he represents the local state, while Peek a community activist would from his more marginal position in the process, be more critical.

The MPP thus aimed to create a collaborative partnership based approach to air quality management (DAEA, 2004). Hajer and Wagenaar (2003) describe the fluidity and complexity of the network society, where actors (in this case the state) respond to a public issue. When society protests in this context, government cannot wait for appropriate sets of knowledge to resolve the issue. They have to respond to issues through processes that endeavour to include various types of evidence or knowledge in decision-making processes as a basis for policymaking. This is the way in which decision-making takes place within the network society. Thus the MPP can be considered as a „network“ based form of decision-making.

5.2.3 Aims of the MPP

Evidence shows that all respondents highlighted four particular aims of the MPP. These are „air quality management“, „inclusion of stakeholders“, „consultation“ and „access to information“.

i) Air quality management

The documented goal of the MPP from the institutional perspective was to “establish an integrated approach to air quality management at the local government level” (Chetty, 2004:2). However, the MPP had various concerns it aimed to address, as the manager of the MPP states:

“The MPP was to look at the health study in the basin, to look at whether there is a connection between air pollution and health effects; to set up their whole air quality management regime; including air quality management planning; air monitoring; increasing the role of the inspectorate to capacitate them to work better; and to address the

issue of toxics; to set up standards for ambient air standards; and to look at the issue of vehicle emissions also” (Siva Chetty, 21/10/09).

This is officially documented as follows:

“The aim of the MPP is to provide an improved and integrated decision making framework for air pollution management at the local government level and to move towards reduction in air pollution to meet health based air quality standards. This will be achieved by the following objectives of the plan:

1. Undertaking a health risk assessment and an epidemiological Study;
2. Phasing out the use of dirty fuels;
3. Establishing an Air Quality Management System;
4. Controlling chemical and fugitive emissions;
5. Strengthening the auditing and permitting system;
6. Development of local legal framework;
7. Reviewing of standards for priority pollutants;
8. Reviewing standards for vehicles emissions” (NILU and eThekweni Municipality, 2007:9).

The dominant goal of the MPP was to bring about improved air quality management and the reduction of harmful pollutants and thus the MPP was said to be “a reduction programme” (Bruce Dale, 21/10/09). However, it is also pointed out that the MPP was “not about air pollution alone but it’s about health and social justice” (Rory O’Connor, 22/10/09). These responses show the different ways in which actors framed the issue of air pollution and its impact on health. Hajer (2005) suggests in any analysis that examines policymaking the following have to be taken into account:

“The way in which different actors nowadays conceive of politics, which actors participate, what they see as effective political action, how actors frame conflict, and to what extent the classical modernist institutions indeed hamper finding effective solutions to problems people want to see resolved” (Hajer and Wagenaar, 2003:6).

It is therefore important to examine the ways in which actors „frame conflicts“, and particularly the frame of „environmental and social justice“ employed by the civil society actors. Thus the variety of frames used by the range of various stakeholders in the MPP posed a challenge for policy-making in this case, as they all perceived the environmental problem under debate in differing ways. This finding is confirmed in Hajer and Wagenaar’s, (2003) discussion of deliberative policymaking where they outline how in the network society, a range of stakeholders engage in policymaking processes, each adopting different frames for defining environmental problems and their solutions.

ii) *„Inclusion of stakeholders“*

The MPP aimed to involve all stakeholders in the decision-making processes, as opposed to the former exclusionary policy planning approaches that existed before democracy, which excluded civil society organisations from the process. It was proposed by national government, which was the lead actor, that through involvement in the MPP, stakeholders could inform the process. Bruce Dale (21/10/09), the Permitting Officer for eThekweni Health Department, commented that the MPP aimed to be an inclusionary process: “you have to involve all stakeholders in the process to try to get an informed opinion”. This approach aligns with that described by Hajer and Wagenaar (2003) who propose that the urgent problems of today in the network society cannot be dealt with within old systems of policymaking as they require cooperative efforts from a variety of stakeholders to find effective solutions. The inclusion of stakeholders was necessary because the policymaking had to be democratic as stated by industry representative Judy Bell (09/11/09): “bear in mind processes started just after apartheid and in (a context of) democracy...then government started to take ownership” (Judy Bell, 09/11/09). The community representative Desmond D’Sa (30/10/09) emphasised that the MPP process accepted that “we (the communities) were equal to the task and our voices had to be heard and that we weren’t here just sitting around the table for a talk-shop”.

Dryzek (1996) points out that there is a difference between authentic and symbolic inclusion. Therefore, not only did the MPP aim to include various stakeholders but the inclusion had to be meaningful and authentic. The stakeholders claimed that there had been authentic inclusion of stakeholders as their involvement in the MPP was not only a superficial involvement.

iii) *Consultation*

Through consultation and discussion with stakeholders, the MPP aimed to collaborate effectively with the various stakeholders. The previous policy of air pollution monitoring was managed in a top-down approach (see Section 5.2.1.1). However, the new MPP decision-making process had to be consultative where the views of the stakeholders were included in the decision-making process. Siva Chetty, the MPP Manager, noted that “the new policy framework of the democratic era was consultative and democratic, although it comes with its own sort of problems” (Siva Chetty, 21/10/09). This statement implies that democracy is not always easy and is faced with many challenges as highlighted by Young (2001). One of the main challenges for democracy is the „deep social and economic inequalities of society“ which

leads to certain groups having more power in deliberative process and therefore more influence on the outcomes of the process (Young, 2001). Since the MPP was a state led process it is clear that the national, provincial and local state hierarchy would dominate the process and define the agenda and most likely define the outcomes in terms of their discourses or frames. This hierarchy is evident in the MPP decision-making structure which had a separate „arena“ for decision-making where only state officials could be present.

The ABM Manager, Lee Deathe` confirmed that “new legislation now says that development can’t take place without discussion” (Lee Deathe`, 09/11/09). The MPP required that both national and local government (the regulators), the affected communities and businesses (the polluters) should be present during the process. What this reveals is that stakeholders, such as the local government official, Deathe`, are well aware of the statutory requirements for deliberative engagement of all stakeholders in decision-making processes in the country, whether these relate to the development or the environment.

One of the community representatives, Desmond D’Sa (30/10/09), expressed that “there were hundreds of meetings about the MPP, several workshops...so here we had power, ensuring that everything was above board...that they (government) were listening to what we say”. The participation of industry was problematic since industry was not legally compelled to contribute financially⁴ or become involved in the process. An article in the *Business Report* (28/07/2004) written by Samantha Enslin quotes ENGEN’s Alan Munn on industry participation:

“Some companies were reluctant to pay (for the running of the MPP) because they had not budgeted for it. „The participation of business has never been brilliant and never that cohesive because we are all too busy running our businesses. There is no single forum that represents the whole of industry, so getting all the small businesses involved has been quite difficult. The larger businesses have already paid their share” (Enslin, 2004).

Despite these issues, the MPP aimed to facilitate a process to engage with the various stakeholders in discussion. Hajer and Wagenaar (2003) and Hajer (2005) explain that inter-organisational networks such as the MPP, consist of various actors and become established when actors realise the need to collaborate through deliberation to achieve a common goal. It is important to note that the civil society organisations from South Durban decided to engage in the MPP as a state-led deliberation process, rather than remain outside this process and

⁴ NEMA (1998) however requires that the „polluter pays“ principle be applied in the resolution of pollution issues.

adopt a more activist stance. However, evidence implies that state and business stakeholders in the MPP had to engage and could not choose whether or not to collaborate in the MPP. The fact that they were forced to participate could also relate to the difference in interests of the various stakeholders which will be discussed further in Section 5.3.

iv) Access to information

As the former air pollution policy did not provide for access to information, the MPP aimed to make all information transparent and available. The MPP aimed to allow all parties access to all information concerning the plan: “information was not freely available in the past but now data is freely available or any information can be made available...we provide information and keep them (the stakeholders) informed” (Bruce Dale, 21/10/09). The industries, especially the refineries, had to allow access to their data as “there was no Key Points Act⁵ that would keep out others anymore” (Judy Bell, 09/11/09).

Therefore, the MPP process aimed to overcome the shortcomings of the previous air pollution policy, and respond to the community outcry about the high pollution levels. The aim was to provide an integrated approach to air quality management through a process which included all stakeholders transparently with full access to information. The next section will examine how the plan was structured

5.3 Structure of the MPP

This theme presents the structure of the MPP according to the evidence collected. The three themes that emerged from the analysis in relation to the structure of the MPP, are: „monitoring networks“, „MPP meetings“ and „networks“. The stakeholders viewed the structure of the MPP process in terms of these three mechanisms.

5.3.1 Monitoring networks

A monitoring network (See Figure 5.1), was set up with the main objective of providing “a quantitative measure of air quality and provide a means of verification for the dispersion modelling system” (NILU, 2004). This network was thus a means of creating data that could

⁵ The Key Points Act (Act No. 102 of 1980) stipulated that strategic industries, such as oil refineries, were exempt from providing information related to their production processes in order to increase and maintain security around these nationally strategic industries.

be shared by all stakeholders. The monitoring stations measured the following pollutants which are indicators for pollution: “SO₂, NO_x, O₃, CO, PM₁₀, PM_{2.5} and TRS...these continuous measurements are designed to evaluate models and be representative for different areas in SBD” (NILU and eThekweni Municipality, 2004:10).

The monitoring stations were originally positioned mainly within the SDB but then were extended to the city centre with two background sites for comparison purposes (NILU, 2004). According to the *Business Report*, in 2000 “just four monitoring stations were put up but now there are 16 that cover not only the refinery valley in south Durban, but other industrial areas, the city centre and a few outlying areas (Enslin, 2004). The stations shown on Figure 5.1, produce Geographic Information Systems (GIS) based air quality data which feeds to the online website supported by the NILU scientists. This use of GIS can be compared to the case study of Atkins et al (2007) where arsenic data was monitored using a Participatory GIS. In this case study qualitative information from the community was used to inform the systems set up and this information was then shared with the public. In South Durban, according to Bruce Dale:

“Communities are now asked where the problems are so we can set up monitoring stations there as the communities are best informed. They would know where to put them. They are involved by government now asking them „do you know of a suitable site for a monitoring station?“ They know the complainant and the area” (Bruce Dale, 21/10/09).

Thus through the MPP the community informed the decision regarding the placement of the monitoring stations and furthermore, the information was also made available to the public through the website.

However, a newspaper article in 2006 in the *Southlands Sun* reported an SO₂ explosion incident at the SAPREF refinery as follows: “while smoke from the fire was visible and would have caused concern, the multi-point plan air quality data did not reflect any change to the normal ambient air quality and Sulphur Dioxide emissions” (Probe into refinery blaze, 03/11/06). Thus at times the monitoring stations are not able to pick up pollution which could be due to various factors such as wind direction. There have been such criticisms of the MPP data but generally, the data from the monitoring stations were discussed at the meetings and decisions were taken based on the data from the monitoring stations. This data facilitates the identification spatially of which industry is releasing what type of pollution emission.

Therefore the monitoring network provided a source of objective knowledge to be used in the decision-making processes of the plan. As Scott and Barnett (2009) explain, science holds power in a discussion, and the objective monitoring data provided through the monitoring network provides a mechanism to structure the MMP process by presenting information for policymaking.

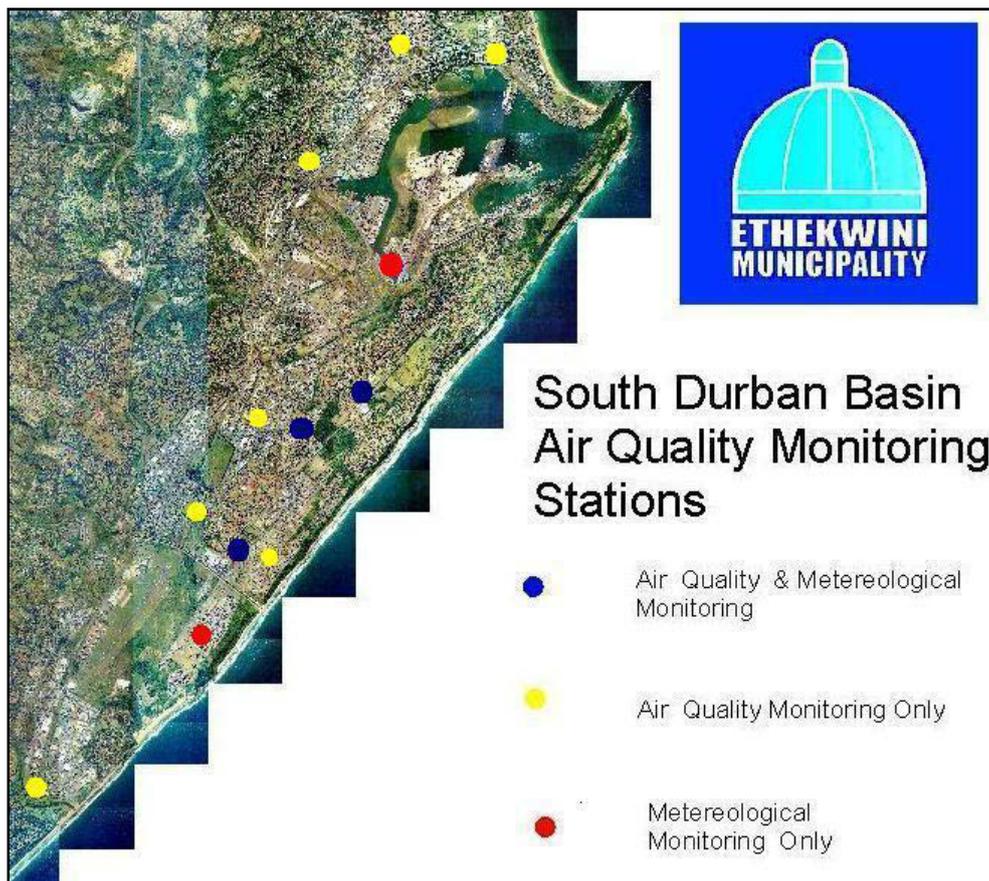


Figure 5.1: Air Monitoring Stations located mainly within the area of the SDB (eThekweni Health and NILU, 2004:11).

5.3.2 MPP Meetings

Evidence shows that the meetings were a crucial part of the MPP. The MPP was structured by discussions through regular meetings. The manager of the MPP Siva Chetty (21/11/09) emphasises that:

“Communication lines were kept open through letter, by fax and by email...also if they (the stakeholders) were at the last meeting they would be informed when the next meeting was...it was highly structured with ongoing communication...(there were) reminders and telephone calls to encourage participation”.

Most of the stakeholder meetings were staged in the Nelson Mandela Room at the City Hall. All the meetings for the MPP were formal as they followed formal meeting procedures, structured the discussions and were minuted. This very formal structure of the MPP meetings could have had an impact on the decision-making processes of the MPP. Hajer and Wagenaar (2003) have suggested that temporary informal arrangements often produce better solutions to societal problems, rather than more authoritative meeting arrangements. However, the meetings were formal in order to manage the agenda of the MPP. Judy Bell (09/11/09) noted that “there was a formal meeting agenda...when it became more formal then people towed the party-line”. The formal agenda could have led a degree of top-down control of the meetings as the meetings were managed by government.

The meeting was chaired by the MPP manager Siva Chetty who kept the meeting controlled. The following response highlights the formality of the meeting: “you can’t just shout your head off whenever you feel like it...it was well controlled and organized, you had to direct all your questions via the chair” (Rory, O’Connor, 22/10/09). Informal „talking“ outside of the MPP also “occurred over a period of 6-8 years. You don’t only do the MPP at a formal meeting, you talk to people, you talk on the phone, information is public, info was shared in national government” (Siva Chetty, 21/10/09). However, even though there may have been „talking“ outside the MPP, the decision-making processes occurred strictly within the formal meetings of the MPP. The final MPP meeting was in 2008, whereas the monitoring network to collect public data is still operational and continues to report emissions. Two levels of meetings were held in the MPP, „the stakeholder consultative forum“ and the „inter-governmental coordinating committee“.

i) *The Stakeholder’s Consultative Forum (SCF)*

The SCF was formed to provide the stage for discussions of the issues that the MPP process aimed to address. Similarly, in the decision-making process of the development of Ground Zero site in New York, Hajer (2005) describes the Overseeing Committee as a platform through which all stakeholders could have a say, making the process of decision-making open and participatory.

The attendants of the MPP meetings were limited to two representatives from each group of stakeholders. The main roles payers were local government, community and industry:

“A stakeholder forum was established with a ratio of stakeholders, government levels and departments that had a role to play, like Environmental Health, Environmental

Affairs and Tourism, community (SDCEA), and Transport and Labour...twenty to thirty delegates at any one time, met once every two weeks, once a month and then once every quarter” (Siva Chetty, 21/10/09).

There were representatives from industries namely ENGEN, SAPREF and MONDI, the Chemical and Allied Industry Association (CAIA), the NGO Groundwork⁶, the community organisation of SDCEA⁷, the CSIR and national, provincial and local government departments. Siva Chetty (21/10/09) explained that:

“Industry themselves were a stakeholder because they realised that having a negative public image was not in their best profit interest and realised that by doing something about the problem and by showing to do something in a meaningful way would improve their own image and standing”.

Although there was stakeholder representation in the MPP process, there were no public meetings where the people living in the communities of the SDB and other interested and affected parties could be part of the decision-making processes. Hajer (2005) claims that if the process of decision-making in the case study of Ground Zero was to be an open and participatory process, then the public at large should get the chance to have their say. This occurred in the Ground Zero process in what was called the „Listening to the City“ meeting. Hajer and Wagenaar (2003) describe this open and participatory process as part of an „expansive democracy“ where increased and open participation increases the democracy of policymaking. By limiting stakeholder participation to two community representatives, the MPP can thus be seen as form of representative democracy rather than participatory democracy. Therefore, the degree of inclusiveness and the quality of democracy in the MPP can be said to be reduced.

ii) *The Inter Governmental Co-ordinating Committee (IGCC)*

There was also another committee that was set up to discuss the issues of the MPP and that was the IGCC which consisted of representatives from the three tiers of government; local, provincial and national. This meeting was set up as the task team to coordinate the governmental departments for the implementation of the MPP. The manager of the MPP commented that:

“We realised there was a need for government to also constitute themselves to respond to the implementation of the MPP, so that’s where we had the Intergovernmental Co-ordinating Committee (IGCC). That committee also met with the same frequency as the

⁶ Groundwork was represented by Bobby Peek.

⁷ SDCEA was represented by Desmond D’Sa and Rory O’Connor.

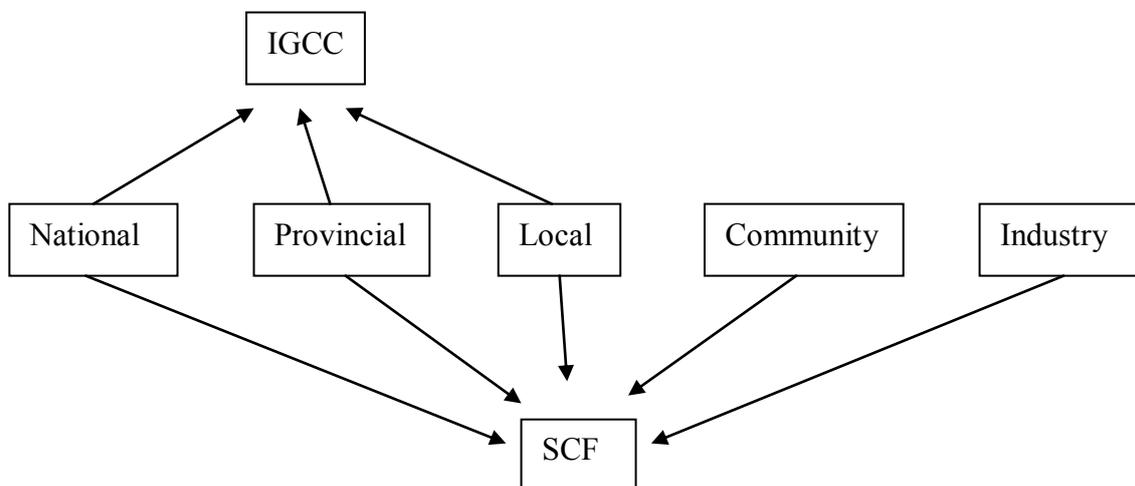
SCF. It was made up of the national, provincial and local – out of that grew a whole department unit to look at air pollution management” (Siva Chetty, 21/10/09).

Thus, government was meeting separately from other stakeholders and held these meetings were held directly before the SCF meetings. This programming could have led to difficulties as the following response highlights:

“Just before community meets with them (government) they have just walked out another meeting (the IGCC) which is provincial, national and local. The stuff that comes out of that meeting comes into our meeting and the people from government are now very bored at the community meeting because they have been dealing with these issues the whole afternoon” (Rory O’Connor, 22/10/09).

Thus, the IGCC meetings were seen by the stakeholders of the MPP as the „internal meetings“ while the SCF was where the „external meetings“ took place. There are immediate flaws in this process of decision-making in that the IGCC meetings excluded not only the broader public but the representative stakeholders as well. Figure 5.2 depicts the structure of the MPP which illustrates the separation of stakeholders in the decision-making processes.

Figure 5.2: Structure of the MPP meetings



5.3.3 Networks

A dominant theme that has emerged from the data is that stakeholders viewed networks as very important structures in the decision-making process of the MPP. It was evident that each stakeholder group networked only with other organisations that shared similar interests, aims

and goals and not across the broad spectrum of stakeholder groups. Networks should aim to transcend these boundaries. Government collaborated with other government departments and scientists, while the community organisation, SDCEA, was active in their networking with the various other community groups which are members of the Alliance, such as community Merebank Residents Association (MRA). SDCEA also networked locally with the NGO Groundwork and corresponded internationally with international Norwegian scientists at NORAD (Norwegian Agency for Development Cooperation). Lee Deathe` (09/11/09) noted that “the community networking was quite well done, they have discussions formal and informal and they’ve got a common language and a common vision”.

The industries networked amongst themselves to find agreements to possible solutions and to decide on the financial contributions that they would make to address the issue of industrial pollution. Lee Deathe` (09/11/09) noted that initially:

“Industry needed to find time for discussion and find solutions so they ended up networking and so did government but these structures have fallen away...they end up only getting together when there is an incident...industry had their own meetings...setting up financial contributions”.

It is also interesting to note that all three main groupings of stakeholders (government, community and industry) had been collaborating with scientists which points to the extent of the reliance on science within the MPP process. This will be elaborated on in Section 5.5.

Siva Chetty (21/10/09), the Manager of the MPP, said he was involved in networking to promote the MPP and policy “and to get expert information into the plan”. Therefore, although the MPP brought the various stakeholders together in the meetings, only the MPP manager described it as a network connection amongst different stakeholders. The other respondents talked about networks and collaboration within their own stakeholder group and not between the stakeholders groups. The main reason for is due to the fact that the stakeholder groups had different interests as the following response shows:

“If it means in a network society you need to have a common goal then it wasn’t, because our goals differed...Corporate’s don’t have a social responsibility – they have a corporate responsibility to their shareholders...there is an inherent conflict with what industry wants to do by being economically successful, but also to have sustainable development...industry wanted to improve their image and make money improving their image so they had to go to the meetings...I think the majority of them didn’t want to be there...there were so many issues, it was never just about air pollution, it was about dealing with a whole range of environmental issues” (Rory O’Connor, 22/10/09).

This response from a community representative indicates an antagonism among stakeholders due to different interests. Although industrial air pollution is the main focus of the civil society organisations in South Durban, there are many related environmental issues that they link to the activities of industry and its impact on the residents in the area. Examples of these are: truck traffic causing congestion and danger on the roads; soil contamination and marine pollution. Hajer and Wagenaar (2003), propose that sharing the same interests, spaces or environmental problems aids in the interdependent collaboration amongst actors to solve an issue. Therefore the effectiveness of the MPP, as a decision-making process, could have been affected by „multi-signification“ among stakeholders. Diverse ways of seeing the world leads to problem solving challenges (Hajer and Wagenaar, 2003). Due to the „multi-signification“ among stakeholders, new deliberative approaches to decision-making are necessary to produce more effective policymaking by allowing the interests of all stakeholders to be expressed (Oelofse et al, 2006). The MPP process aimed to facilitate deliberation among all stakeholders. The next section will examine the extent to which deliberation did occur in the decision-making processes.

5.4 Decision-making processes of the MPP

This section describes the analysis of the decision-making processes of the MPP process in order to understand the democratic nature of the discussions. This theme is split into five sub-themes which have emerged from the data: „policymaking rules“, „government made the decisions“, „problems of the MPP decision-making process“, „stakeholder perceptions“, „activist inclusion into the deliberative process of the MPP“

5.4.1 Policymaking rules

This section examines the first theme identified by respondents in relation to the decision-making processes that took place in the MPP policy process. The rules of the decision-making processes of the MPP followed participation rules that stemmed from experience and training. With experience in policymaking, the Manager of the MPP noted that he had done a course in participation where:

“It is important to realise that a problem defined in the technical domain is not effectively defined, you need different views to strengthen the understanding of the problem...it needs participatory input to environmental management issues...participation is important to solving the problem, the more you strengthen the understanding of the problem the closer you get to the resolution” (Siva Chetty, 21/10/09).

While Hajer and Wagenaar (2003) explain that in the network society there are no set rules to the policymaking processes through networks, as each stakeholder comes to proceedings with their own perceptions of how the process should run, who the responsible and accountable role players should be, and who should be included. Respondents noted that the meetings of the MPP followed strict meeting protocols and the process of decision-making had to go through specific channels from the start. The community representatives, SDCEA, emphasised that they were well aware of formal meeting procedures and rules of policymaking as the following response shows:

“We are schooled in the meeting procedures, how to maintain the order and how to achieve the upper hand. We won more battles than we lost. The industry didn’t know what points of order were in the meeting. They are used to being forceful and giving orders and instruction but here they had to listen to other people” (Desmond D’Sa, 30/10/09).

The decisions in the MPP were made via a process of discussions among the various stakeholders which was then followed by „commenting periods“. These took a lot of time - drafting, redrafting and rewriting the discussion points where “somebody would go out and draft things, and circulate it and if we’d agree on those points and if we felt that this would hinder progress then we would argue the point and we reworked that part of the policy” (Desmond D’Sa, 30/10/09). Decision-making was centrally controlled by controlled by government in a strict manner.

There were heated arguments as “sometimes people got heated and personal and walked out” (Judy Bell, 09/11/09). However, the discussions aimed to build consensus and were mostly professionally conducted as the following responses highlight:

“As a general rule, we had to respect people, as much as we would differ, obviously there were heated arguments but not from an individual. We were fighting the issue, we weren’t fighting the individuals. We will fight the issue as long as you (the industries) harm us (with air pollution)” (Desmond D’Sa, 30/10/09).

“Decision-making occurred largely by consensus. There was a lot of discussion with a will to resolve the problem and so a trend was set, decisions were suggested and probably the industry or individuals who were most compromised objected the most but at the end of the day most people came on board (Lee Deathe’, (09/11/09).

Therefore, participation rules were followed where issues were opened up for discussion to build consensus. Government would be in charge of the procedures of the MPP process and

would aim to follow the agenda, rules of the meetings and discussion procedures, as Lee Deathe` (09/11/09) commented:

“Internal and external meetings were chaired by the head of Health. It was a formal process with minutes that noted actions and followed through with them. Presentations were made informing people of background information and results were tabled with a chance to interrogate them. Now there is only a formal meeting once a year looking at the key issues only by government” (Lee Deathe`, 09/10/09).

The MPP Manager describes how government has provided information and results at every MPP meeting in a systematic way to meet the targets⁸ that they set (Siva Chetty, 21/10/09). He goes on to say that people come to meetings because they expect results, therefore government created an incentive for attendance to those meetings through producing results (Siva Chetty, 21/10/09). It was noted that the process of “institutionalisation is a lengthy process to form, it takes time, as you can see but it was well worth the investment because of all the improvements (to air quality)” (Siva Chetty, 21/10/09).

Therefore the policymaking rules were formal and managed by government in a hierarchical form to achieve results. In the network society, rules, as Hajer and Wagenaar (2003) suggest, are usually created by the actors through new forms of governance and where „institutional ambiguity“ is addressed by collaborative efforts. The evidence collected in this thesis from stakeholders consists of their interpretations of the MPP and indicates that the MPP does not entirely fit into this form of decision-making. The MPP process may have achieved results, however the decision-making processes were hierarchical and not democratic enough to effectively address the issues raised by all the stakeholders. Thus the evidence suggests that the MPP is not a truly deliberative form of decision-making. This could account for the radical differences in the interpretations of the policymaking processes of the MPP among the different stakeholders. Hajer and Wagenaar (2003) state that the rules of policymaking are as important as the outcomes achieved and thus the democratic nature of the decision-making processes needs to be assessed to determine the extent to which true deliberation took place.

5.4.2 ‘Government made the decisions’

An important theme that emerged from the evidence was that „government made the decisions“. There were perceptions by some stakeholders that decisions were being made at

⁸ MPP targets were a product of the „points“ of the MPP. Each point or task of the MPP had its own set of targets. For example, the health risk assessment was one of the goals of the MPP and had a series of outcomes which can be termed targets.

the IGCC that did not include all stakeholders. Government was seen as the main decision-maker in the MPP process as the following responses depict. The manager of the MPP, a government official, clearly stated that:

“Decisions can’t be open free for all, that’s not how things develop. You have to start off with your objectives and then say these are how you are going to achieve your objectives and then at each point they can make an input” (Siva Chetty, 21/10/09).

Chetty emphasised that the decision-making process has to be managed „very well“ and not „opened up“ completely (Siva Chetty, 21/10/09). Bruce Dale (21/10/09) also representing government, confirmed that “ultimately government had the final say in term of managing the process. Local government would have to report back to DEAT national government”. The government SDB ABM Manager succinctly described that “local government implemented the process, the city set up the structures and got funding from international experts”. He however, also noted that “national government was probably the main role player...but community was watching and also driving the process” (Lee Deathe`, 09/11/09). The important thing about the statement that „the community was watching and also driving the process“ is that the government official is using colloquial language to express the fact that the community were holding the government accountable for its actions. It is important to note that the community in this way gains considerable power in its ability to challenge the legitimacy of the state – this is a key strategy of civil society organisations. The quote is also made by a government stakeholder whilst the next quote by Mr O’Connor depicts the top down nature of decision-making.

The above statements depict the top-down nature of the policymaking structures which are described by Hajer and Wagenaar (2003) as the „traditional“ form of policymaking. Although there were open discussions, evidence shows that there were difficulties and tensions that surrounded the issue of government taking the leading role. Rory O’Connor, a representative from community, stated that the community representatives were not invited to the IGCC meetings:

“The IGCC meetings occurred with the most senior government officials, no industry, or so we think, and no community...what would happen at those meetings, I think, is where all the hardcore decision-making went down in the three most high levels of government...if there’s something of substance on the agenda to deal with they (government) would already have had a „pow wow“ with the others and have their view...So we come along and they hear our argument but I think they’ve already formed their opinion. I think some of the decision-making processes were subverted by the fact that there was this other committee (the IGCC) (Rory O’Connor, 22/10/09).

So even though stakeholders were included in the process of decision-making, there were tensions and perceptions that the government was making decisions separately in the ICCG meetings. There were also suspicions that government was meeting with industry privately to make decisions as implied in the above statement by Rory O' Connor (22/10/09). This suspicion points to the lack of trust not necessarily present at the beginning of a deliberative process but should have been built through the policymaking deliberative structures as stated by Hajer and Wagenaar (2003). In effect, the perception among the community groups was that government was exclusive, i.e. were making decisions without full input from community representatives. It was clear from the evidence that other stakeholders, i.e. community and industry also had their own meetings concerning issues related to the MPP. However, the difference is that government was in a position of power and exerted its power and influence in the decision-making procedures and outcomes. Hajer and Wagenaar (2003) have described traditional policymaking processes as where the elite policy analysts would have the final say in politically charged issues. Therefore the MPP can be viewed as partially falling back into the traditional mould of policymaking. The critique of the decision-making processes by the stakeholders points to some inherent problems with the MPP which will be discussed in the following section.

5.4.3 Problems of the MPP decision-making processes

Evidence shows that the main problems related to the MPP decision-making process are the „location of meetings“, „unequal balance of power“, „communication problems“ and the issue of „dirty fuels“. The problems of decision-making processes present major challenges to the democratic nature of the discussions within the MPP.

i) Location of Meetings

One of the key problems that emerged from the evidence was the accessibility of meetings. Initially, industry had tried to stage the MPP at their industrial venues where they control access: “industry volunteered a board room but access was restricted. ...you had to produce an ID and this made it difficult for community...industry could just say „I don't want Bobby (Peek) or Des (D'Sa)“” (Judy Bell, 09/11/09). However, the community refused to let industry have control over the proceedings and objected to this location and so the meetings were subsequently held at City Hall. There were also difficulties surrounding the venue of City Hall because “when there was a protest, access would be restricted and then there would be

tensions because this person is now not talking to that person” (Judy Bell, 09/11/09). At this stage the community was still engaged in protest action against industry and government because, as explained by Desmond D’Sa (30/10/09), “while negotiations were happening (within the MPP process) there were explosions” in South Durban (Desmond D’Sa, 30/10/09). Meetings were also not accessible to everyone as the “meetings were held in the centre of town...not accessible to all” (Judy Bell, 09/11/09). The timing of the meetings was also problematic as they were held at night which made them inaccessible to some stakeholders

Government and industry also wanted initially to meet in the afternoons as the meetings were considered as part of their jobs, but the community representatives could only attend after hours because they had full-time jobs. Rory O’Connor (22/10/09) explained that the industry representatives felt they were forced into attending the evening meetings as they probably asked themselves „why do we have to be here now“ when they would rather go home to their families. Further issues of accessibility revealed that community stakeholders did not receive any financial aid through the eight year process of the MPP meetings whereas government and industry attended meetings as part of their job as the following responses depict:

“Logistically we didn’t get paid to go to any meetings – we weren’t facilitating in any way, we didn’t get money to go to the meetings...clearly government guys are paid to be there, industry guys are paid to be there, but we not paid to be there...the people making the most sacrifices were us, whereas for them it was part of their job description...we have to drive far, for what I feel was a waste of two hours mostly fruitless discussion...sometimes there would be good stuff...not all bad...but after arguing you feel worked up when you come home” (Rory O’Connor, 22/10/09).

“It was our volunteer time, we never got paid to be there but the industry guys got paid from their bosses” (Desmond D’Sa, 30/10/09).

These issues raised by stakeholders relate to the problem of the timing of meetings and as a result the access to them. Difficulties and tensions that result from bringing different stakeholders together in a decision-making process is common as pointed out by Hajer (2005) who states that not everyone has similar views when it comes to the staging of deliberative discussions. When stakeholders experience barriers to discussion, such as the issue of access, the democratic quality of deliberation is reduced (Hajer, 2005). Young (2001) believes that this is one of the shortfalls of deliberation when settings may not be fully accessible or where entrance is controlled.

ii) *Unequal balance of power*

An unequal balance of power was a dominant theme in the evidence gathered about the decision-making processes of the MPP. The community felt that government and industry had more decision-making power and thus may have influenced the decision-making in their favour. This is revealed in the following response:

“The process can be mismanaged or subverted by the more powerful players if they want to...community’s in there with nothing, except a voice and passion, and you’ve got industry sitting there with the industrial might, the connections and the money, and you’ve got government sitting there with all the law that they could possibly have and the regulatory and political power...you might be sitting around the same table but it doesn’t mean you all in an equal position of power” (Rory O’Connor, 22/10/30).

Bobby Peek (18/11/09) from the NGO groundWork emphasises the need for a strong civil society to “challenge the bureaucrats”. The position of civil society was to “force them to understand what we wanted”, in what was essentially a “political decision-making”, process steered by the politicians (Bobby Peek, 18/11/09).

Young (2001) warns against deliberation within contexts with structural inequalities because in the real world of politics “*structural inequalities influence both procedures and outcomes, (and) democratic processes that appear to conform to norms of deliberation are usually biased toward more powerful agents*” (Young, 2001:671). The government and industry are in positions of power as the evidence shows and therefore according to Young (2001:673) dominant parties which have “*the power to unfairly steer the course of the discussion*”. Community representatives felt that the processes of the MPP were subverted by the more powerful players” (Rory O’Connor, 22/10/09) thus confirming Young’s (2001) theory regarding the democratic value of deliberation versus activist protest. Therefore there was an unequal balance of power amongst stakeholders which poses a problem for effective democratic decision-making.

iii) *Communication problems*

There were difficulties experienced in the MPP decision-making processes surrounding the theme of communication. Evidence shows that national and provincial stakeholders had changed their representatives throughout the MPP and this caused breaks in communication where “government officials kept changing so that was frustrating because they would not be in the loop” (Judy Bell, 09/11/09). Lee Deathe` further noted that

“The process was long and attendance of external stakeholders dropped off because of lack of attendance of provincial and national stakeholders (who) eventually stopped

coming to the meetings. That kind of fizzed out attendance and led to a breakdown in communication. The continuity wasn't there but other people stuck it out and closed the gap...Some issues were not quite concluded" (Lee Deathe`, 09/11/09).

There were also many delays where people would have to take the issues and decisions that were discussed at the MPP to their respective stakeholder groups for further discussion. The community representatives felt that industry "delayed the process as they had to take the info back to their bosses" (Desmond D'Sa, 30/11/09). The industry representative provided a similar view about the authorities where:

"Authorities tried to take charge...but they had to be inclusive, it had to be an inclusive process. Authorities had their own meetings and they could plunge forward but then they had to come back and incorporate the other stakeholders who then had to take it to the people they represented then come back so it was a longer process" (Judy Bell, 09/11/09).

Community further describes the delays of the decision-making process where effective communication was not made fast enough:

"I'm disgruntled with the process...I think it „sucks“. It all came down to money...industry would say government must come to the party, government must pay. Government would then say we have to go see if there's money and the process was so long, even though it was supposed to be a fast decision making process, it never got decisions out fast – at the end of it all it just became a „talk shop“, and a frustrating one at that" (Rory O'Connor, 22/10/09).

Lack of communication issues occurred when the language that stakeholders used caused misunderstandings or confusion. Lee Deathe` highlights an example of one misunderstanding in the communication process:

"Often people were saying „this“ and government was understanding „that“ – the use of words can help the communication. Community wanted a disaster management issue for emergencies, and used the word „disaster“ when a pollution incident occurred in the SDB. But the Disaster Management Act defines a disaster as something that only national government can handle - not local. They (the communities) should be asking for a communication plan and not evacuation plan...also community was frustrated and hostile due to the pollution of their environment but that was largely overcome at the end of the day...the city were very defensive because they were on the receiving end of all the frustration and being blamed for so long they couldn't listen and wouldn't listen" (Lee Deathe`, 09/11/09).

The constant changing of representatives from provincial and national departments led to the problem of inconsistency in the debate. A critical issue here is the lack of institutional memory resulting from the rapid changeover of staff in government departments. Hajer (2005) proposes that effective debate should be a principle of democratic deliberation as all

sides should be heard including the provision of responses to each argument. There were also long delays due to the formalised processes of discussion. The knowledge from the deliberative discussions, as Hajer (2005) explains should be mobilised for action. The evidence from stakeholders however indicates that the dialogues held in the MPP meetings ended up merely as a „talk shop“ at times and thus action was not taken fast enough. As Orstrom (2002) highlighted, poor communication results in the tragedy of the commons as opposed to organised effective discussion amongst users. The difference in the understanding of certain issues indicates that knowledge was not adequately shared among stakeholders in order to encourage learning through an iterative process (Hajer, 2005). The problems of communication indicate therefore that the MPP decision-making processes were not effectively deliberative.

5.4.3.6 *Issue of dirty fuels*

The phasing out of dirty fuels, as an issue for debate, was taken off the agenda as government decided to manage the process separately. The community stakeholders therefore felt that they had no say in the matters relating to the real pollution caused by dirty fuels as the following response highlights:

“Dirty fuels which were fossil fuels then became transformed into clean fuels – the processes totally got transformed and re-managed. Then that became cleaner fuels. Industries were able to push their agenda. It’s all rubbish anyway. Industry has to burn their fuels because they can’t dump it. They are burning rubbish all day long. So suddenly from all these points things (issues) were watered down, and watered down...this is what you said you were doing, this is what we agreed to, now where did this come from?” (Rory O’Connor, 22/10/0).

Desmond D’Sa was adamant that the issue of dirty fuels was being managed away from community:

“There is no phasing out the dirty fuel at a time where (the use of) coal (is) increasing and climate change is at its worst. Government would call us to a meeting but they have already made up their minds on the (gas) pipeline....every time the national environmental people would just not come because they have already agreed to not phase out dirty fuels that we were calling for” (Desmond D’Sa, 30/10/09).

Bobby Peek (18/11/09) maintained that „dirty fuels“ was taken off the agenda:

“...because the CAIA put pressure on government and lobbied for coal. The vehicle emissions inventory was just industry pushing their agenda because there is no way the pollution in Merebank is caused by traffic alone...why was fuels taken off the agenda?...we never made that decision” (Bobby Peek, 18/11/09).

Another strong point was made that the MPP only debated the issue of measuring Sulphur Dioxide (SO₂) and five other indicator pollutants, while all other pollutants were ignored. Judy Bell (09/11/09) indicates “everything was about SO₂ and others like visible particulates were largely ignored”. Desmond D’Sa also confirms this fact as follows:

“They used five indicator chemicals to show if there was a problem...not looking at the whole three hundred, so it doesn’t give you a real picture. Some dangerous chemicals are not even measured at all. What we won though was only five chemicals, we did not get a proper reduction of all the chemicals and that battle still continues up until this day” (Desmond D’Sa, 30/10/09).

Therefore some issues were taken off the agenda without the agreement of all stakeholders. Thus stakeholders were excluded from deliberating certain issues which also points to a lack of accountability and integrity on the part of government as the phasing out of dirty fuels was tabled as one of the objectives of the MPP. Therefore, according to Hajer (2005) and Hajer and Wagenaar (2003), the exclusion, accessibility difficulties, errors in communication, ineffective dialogue and break in accountability and integrity point to limitations in the MPP process which have reduced the democratic quality of the deliberative processes of the MPP.

5.4.4 Stakeholder perceptions

The MPP was a policy process that aimed to include stakeholders in decision-making processes as a new form of democratic governance. Some stakeholder agreed that it was a good form of governance while others did not. Not all stakeholders feel that the MPP was truly democratic. It was predominantly the community representatives that have questioned the effectiveness of the MPP in achieving democratic process, as they were also the most willing to discuss the MPP process. Thus, Rory O’Connor stated that:

“It hasn’t worked for many reasons. This co-operative type of governance where we sit together and make great decisions apparently. But you have an under resourced community with government and industry having more resources - it’s an unequal balance of power. It turned out to be a waste of time – it was „shambolic“ instead of „symbolic“” (Rory O’Connor, 22/10/09).

Bobby Peek (18/11/09) from groundwork believes that the MPP was “as democratic as government wanted it to be...it was democratic when it chose to be...the MPP was bureaucratically democratic. It’s not a new form of governance, it’s a rehash of a multi-stakeholder process” (Bobby Peek, 18/11/09). The MPP “would have been a good shining example of governance for the rest of the country” (Desmond D’Sa, 30/10/09). D’Sa believes that “one of the failures of this government is that once they met with us and realised we

know all what's going on they realised they have to commit themselves to change" (Desmond D'Sa, 30/10/09). He also argued that the MPP has not been continued with the last meeting held in 2008 which shows that "government has moved away from the MPP as they see it as a threat to deliver".

Lee Deathe` (09/11/09) felt that the MPP was "as democratic as was feasible to achieve the results" and he believes that a fair balance was achieved between getting results and being democratic (Lee Death`, 09/11/09).

Therefore the NGO and community stakeholders, and even the SDB ABM manager, felt that the MPP was not truly democratic at all times. There were positive perceptions that the decision making processes was a new form of governance that brought mutual learning and good involvement and collaboration. This was the view, of government and industry. The industry representative stated that:

"We learned from each other in the participation process. They learned not to demand but to build consensus...it was a very good process, it was exciting but also draining as it took a lot of time and effort" (Judy Bell, 09/11/09).

This was echoed by the MPP manager who felt that the MPP encouraged leaning from others:

"Community has seen proof of improvement. Industry has learnt from co-operating as it is showing in their books. You must not think that because you are on top you know everything...you can learn from others" (Siva Chetty, 21/10/09).

Therefore, there were large differences in stakeholder perceptions of the MPP process. Stakeholders both are affected by and affect how policymaking occurs and so it is a learning process (Hajer and Wagenaar, 2003). Evidence shows that there was a degree of mutual leaning as stakeholders who differed in their perceptions of the policy process still learned something of the other stakeholder's viewpoints.

5.4.5 Activist inclusion into the deliberative process of the MPP

This section explores the reasons for the inclusion of SDCEA, an activist civil society organisation into formal deliberations with government. As depicted by Young (2001) in her personification of actors, the „deliberative democrat“ takes account of the concerns of others and chooses to deliberate to bring about legislated change. SDCEA did choose to deliberate in this process as they felt that they had to represent the needs of the people of the SDB and

bring about change. In the following statements by civil society actors, they explain their reasons for engaging in the MPP:

“The MPP looked like something different and we said lets see how it goes and whether it will make a difference. We were led to believe it was going to be a new collaborative initiative. In principle it sounded good so why not try it. We don’t just oppose things just for the sake of opposing them. We were open minded and wanted to see that issue of pollution would be adequately managed and we would be able to get our views out to the people who count. The meetings of the MPP held up the promise of empowerment for us, to know that we are an equal player, we wanted to be on board” (Rory O’Connor, 22/10/09).

“There were trying times, times when we were angry, when we fought very hard at the table. I think there were time later on when people realised, you know what...if we don’t negotiate, we not going to get anywhere, it’s going to be a stumbling block to progress. We decided to engage them because we had been in the streets for a long time...wanted to give it a chance to start changing the law, start changing the culture and also to bring about environmental improvements and we saw that, that was the route to do it” (Desmond, D’Sa, (30/10/09).

SDCEA, up until its engagement in the MPP process, had brought media attention which had received responses from government and therefore it can be understood that the activism came before and led up to deliberation. However, they also still wanted to simultaneously maintain their role as activists while still engaging in deliberations with government. SDCEA maintain that they:

“...want to continue to be an activist group, but we also want to talk to people as well, so we had this adversarial role, of talking to you and if our points are not being taken on board then we have the right which is enshrined in our constitution to picket, to protest peacefully and to raise our voices against such atrocities, and to lobby or go to court to get relief from those atrocities” (Desmond D’Sa, 30/10/09).

Thus SDCEA believe that they can act both „inside“ and „outside“ the state (Dryzek, 1997; Scott and Barnett, 2007). Local government also felt that SDCEA needed to be involved in the deliberations to empower themselves:

“They need to be involved to able to find out what’s going on and to make inquisition into it...They need to be involved in deliberations and discussions. They must come to us and government as well. Otherwise they going to sit out there and they can’t tackle industry on their own. We’ve got the legal backing to say „please sort this issue out or close down the business till you sort out the issue“. SDCEA can’t do that so it in their interest to work with us” (Bruce Dale, 21/10/09).

SDCEA believe that there is a need for both activism and deliberation to bring about change. The MPP manager used to be an activist as he lived in Merebank and experienced the pollution as well. He elaborates that even though there still may be tensions between the

activist group SDCEA and government, these tensions are necessary to stimulate change. Dryzek (1996) suggests that tensions, if managed correctly are necessary because conflict and the challenge of the existing structures leads to the deepening of democracy. Both government and industry recognise that SDCEA should be part of the participatory processes:

“You need a bit of both (activist and deliberative) as you can’t be stuck in one area... There’s always tensions with SDCEA and government even after their involvement with the MPP...tensions are necessary for everyone to be put on edge so that you get as close as possible to the truth of the matter...you can’t have a comfortable and cosy relationship” (Siva Chetty, 21/10/09).

Judy Bell, an industry representative, agreed that “you can be against something but you have to work with it for results” (Judy Bell, 09/11/09).

An interesting response from a SDCEA representative suggests that by joining the deliberative processes of the MPP, SDCEA may have lost some of their activist power: “as an activist involved in a process that is co-operative, you almost feel like you have to give up your activism...and suddenly you are discussing issues that they put on the agenda and you end up getting stuck in a process-driven thing and you recycle your grassroots activism” (Rory O’Connor, 22/10/09). Dryzek (1996) proposes that co-option occurs when the threats to the existing structures are avoided by the incorporation of new actors into the dominating or controlling organisation or structure, in this case the state. Rory O’Connor’s (22/10/09) realisation that SDCEA, by its involvement in the MPP, was drawn into a process in which its participants were compromised, is a recognition of co-option. Section 5.4 has described the decision-making processes of the MPP and had identified the shortfalls in the democratic nature of the plan. In Section 5.5, the degree of deliberation will be analysed to assess whether the MPP was truly deliberative.

5.5 The degree of deliberation that occurred within the MPP decision-making processes.

This theme reviews the democratic qualities of the deliberative processes of the MPP. Using Hajer’s (2005) six principles of deliberation as the six sub-themes to this section, the deliberative decision-making processes of the MPP will be analysed according to this theory. The six principles of democratic deliberation are reciprocity, inclusiveness, openness, integrity, accountability and dialogue (Hajer, 2005).

5.5.1 Reciprocity

This section examines the operation of the principle of reciprocity in the MPP process. This section aims to answer the question whether the discussions of the MPP had been conducted through an argumentative exchange where all sides were heard and where responses were given to one another's arguments. Reciprocity as defined by Hajer (2005), is the first principle for democratic deliberation. The dominant response showed that the process was reciprocal as people came prepared with their agendas to debate issues and all sides were allowed to have a say at the meetings. However, there were two issues that highlighted that the deliberation was not always reciprocal. Firstly, there were some issues that were not addressed at the SCF meetings and secondly, stakeholder's opinions were not always listened to. Evidence for this is derived from the SDB ABM manager, who stated that some issues were omitted from the discussions:

“Although the internal and external meetings were constructive and issues were discussed and many of the issues were resolved, I think some got swept under the carpet from time to time and forgotten about but in the bigger picture it probably wasn't significant” (Lee Deathe, 09/11/09).

A community representative raised the issue that communities concerns were not heeded: “it (the MPP) created a platform to be heard but being heard doesn't mean the same as being listened to, there's a difference. It did facilitate exposing concerns but it didn't end up in a resolution that was equitable to all” (Rory O'Connor, 22/10/09). Bobby Peek (18/11/09) agreed that there was reciprocity at one level but stated that there were parallel meetings between government and industry so they were lobbying outside of the MPP”. Therefore, the evidence of relatively weak reciprocity evident in the MPP process, allows for a conclusion that the quality of democracy was undermined in the process (Hajer, 2005).

5.5.2 Inclusiveness

This section provides evidence of the inclusion of stakeholders and whether all stakeholders with a stake in the decision-making processes were allowed to have a say. Inclusiveness is the second principle of democratic deliberation proposed by Hajer (2005). Evidence shows that the stakeholder groups of the MPP were included in the process where: “everyone was allowed to have a say. There was a lot of mistrust in the debate so people were allowed to open and argue their positions clearly. Government's objective was to create an objective, get compliance and show a reduction (in air pollution)” (Siva Chetty, 21/10/09). However, the

community felt that they were excluded in having a say on the issue of fuels. Desmond D'Sa (30/10/09) explained:

“Most of it was inclusive but some were exclusive, one was the phasing out of dirty fuels, they denied us our right to be part of the process, that’s because the chemical industries lobbied behind the back of the community with government, because it would have cost them millions of Rands to change from dirty fuels to cleaner energy. We know people die rapidly here...we are saying we are not against development, we are against dirty development”.

Inclusiveness was also not possible because of „stakeholder burnout“ particularly in the case of the civil society representatives (Rory O’Connor (22/10/09), SDCEA’s representative):

“Siva was working with NILU on air emissions, air pollution modelling and all this wonderful stuff and they would feed that into this MPP process...so you’ve got these processes running outside the MPP that are supposed to be part of the MPP. They are run and managed outside of us, we not part of that...and there’s just too little of us to be involved in that. They said we can sit in that meeting too but how can I sit in so many meetings with no time and so little of us? So it becomes a capacity issue...you end up being run off your feet”

Furthermore, evidence shows that that the MPP was not fully inclusive because it did not allow for ordinary people to participate (Bobby Peek, 18/11/09):

“They bureaucratized the process...what happened to street democracy? If you didn’t have a masters degree and didn’t have a car you could not participate...that’s why people take to the streets otherwise they don’t get heard...they don’t come to be involved in deliberations because they is no place for them anymore so they take to the streets in protests” (Bobby Peek, 18/11/09).

Peek emphasises that although there were three civil society representatives, other people from the larger South Durban community were not allowed to participate. The inclusiveness of the MPP can therefore be classified as weak as the broader public were not allowed to be part of the decision-making process. Hajer’s (2005) second principle for deliberation requires that everyone with a stake in the discussions should be part of the processes with the ability to have a say in the decision-making. There were also too few community representatives to adequately represent the community at all meetings.

5.5.3 Openness and accessibility

This section presents evidence as to whether the discussion in the MPP process had been open and accessible to all without the blockage of unnecessary barriers and technical language. Openness and accessibility is Hajer’s (2005) third principle of democratic deliberation. The decision-making processes were only open and accessible to the representatives of each

stakeholder group as discussed in Section 5.2.2. Although the representative stakeholders had access to the meetings, it was sometimes hard for all stakeholders to get to all of the meetings. There was full access to information and the website allowed for direct information sharing of the data from the monitoring stations. However, the fact that the representation was limited and controlled, means that not all the interested and affected parties were included in the decision-making processes. The SDB AMB manager, made the point that the MPP could not simply invite everyone and a well managed process was necessary to move forward (Lee Deathe`, 09/11/09):

“It was contained to make sure it was manageable so you could have everybody attending just cause they wanted to be there. The people who were there were from industry, government and community, mostly the people who had a vested interest, so it was all inclusive but when the community would come there as representatives, they didn’t come marching in as hotheads, they came there to deliberate, they came to take part in a well managed process. People got invited to the meeting. It was a contained well managed process, simply because if you ask everybody to come, you would have so many people trying to find out what’s going on you wouldn’t be able to move forward. So the people who did come were well informed” (Lee Deathe`, 09/11/09).

In addition to participation, the MPP manager made the point that all the information was publicly accessible:

“There were newsletters and websites, but by and large there are a few passionate people in organisations that would have an interest in this but they not part of the process. But we make sure there was verbal communication on the plan with the newsletters, webpage and having articles going to the health and safety committee” (Siva Chetty, 21/10/09).

It was also apparent that as the MPP process proceeded, there was more openness between the levels of government:

“Initially the national government wanted to hang on to whatever responsibilities they had and they always wanted to be seen to be running the issues but nowadays the national, provincial and local are working a lot better together on sharing information but there was a problem at the initiation stage” (Bruce Dale, 21/10/09).

i) *Technical Jargon*

Technical jargon was predominantly used in meetings and communications as the MPP process was reliant on scientific data sourced from the monitoring stations for the decision-making process. Stakeholders felt that it was necessary to have some level of scientific knowledge to attend the meetings on the MPP.

The understanding of air pollution and management requires knowledge of highly scientific and technical processes. The government officials commented that “initially it took a while for communities to get familiar with jargon. The NGOs took the information overseas (to experts) to get input” (Bruce Dale, 21/10/09). Lee Deathe` (09/11/09), also believed that “if somebody came in there cold they would get confused. Industry had their own jargon but it wasn’t highly technical...they went out of their way to make it accessible”. The industrial representative acknowledged that:

“It was extremely technical because of chemical names. People would say „Huh, what does that mean? You had to be able to understand (temperature) inversions...people would say „but how does that affect me? Why is air pollution from somewhere else affecting me on my road? Why is not from the ENGEN factory outside my house?“ Also industry and government did not initially understand the issue of the cumulative effects of pollution” (Judy Bell, 09/11/09).

“There was technical stuff and that’s why you would not be able to bring ordinary people, community people into this process. So the few of us, community representatives would not at first understand the information. We would take it away with us to source the interpretation of the information from other people who were helping us, our technical advisors and we would get an opinion and come back” (Desmond D’Sa, 30/10/09).

Thus, even though there was information sharing in the MPP, the decision-making processes were exclusive and controlled with the number of people who could attend the meeting being limited. The use of technical jargon further limited the participants to only those who could understand the science and to those who were „in the loop“. Therefore this evidence shows that Hajer’s (2005) third principle of openness was not fully adhered to by the MPP.

5.5.4 Integrity and honesty

This section assesses the integrity of the MPP discussions where Hajer (2005) describes integrity and honesty as the fourth principle of democratic deliberation. This principle requires honesty and no double play. The deliberations in the MPP were minuted and this made the stakeholders accountable for what they said in the meetings. There was also access to information as the manager of the MPP expressed: “as the project manager there was nothing to hide, when there were high levels of Benzene it was projected. There was sharing information at every level. Have to constantly address trust issues. You have to deliver a, b and c if you say you going to deliver a, b and c. It was hard work” (Siva Chetty, 21/10/09).

Government was perceived by the community representatives as talking with industry without including the community stakeholders. Government then explained that when they met with industry it was to enforce compliance to reduce emissions: “Community see us taking to industry on the side. Government gets industry to sign on the dotted line that they are going to reduce emissions with reduction strategies but community still has trust issues...don’t know what’s going to break that down. Everybody needs to be on the same page” (Bruce Dale, 21/10/09). The MPP plan was reported in the media as a positive process: “the multipoint plan is making progress in addressing the high levels of pollution in Durban, but building trust between industry and the community is a slow process that requires commitment and honesty from both sides (Business Report, 28/07/04).

There were other trust issues, one accusation being that the minutes taken by government were subjective: “the meetings were minuted by the city...minutes were not minuted correctly...some things were left out” (Bobby Peek, 18/10/09). Bobby Peek also felt that he was accused of having no integrity possibly because of his uncompromising stance during the discussions. He asked the question *„how can I compromise my own health?“* and stated that he lived next to an oil refinery.

Trust also declined when tensions arose due to community protest action and when representatives changed during the course of deliberations:

“it waned in waves where there was a spanner put into the works by city marches...(this) caused tensions. Also it is important to have good minutes – proves accountability because someone would say *„no I didn’t say that“* but then the minutes would prove that they did. There was no trust originally but then trust was built over time through individual relations between the participants. This would wane when there was an issue arising or when representatives changed in government” (Judy Bell, 09/11/09).

The community felt that the industry had not been honest about their commitment to the MPP, “CAIA pulled out after being asked to fund (the MPP), they were committed but they lied” (Desmond D’Sa, 21/10/09). The community felt that local government showed integrity and honesty while the national and provincial government were making their own decisions on the issue of the dirty fuels and were not as committed to the process:

“Local government had a lot of integrity but the national government, they would come and they won’t come, there wasn’t really any support for the MPP because they knew they would have to set up these kind of processes all over the country so they didn’t want to be involved because they didn’t want to be able to set up these same kind of processes all

over the country and let people get knowledgeable about this issue...in the beginning we had support but then it died off... (Desmond D'Sa, 30/10/0).

“The dirty fuel thing became a clean fuel thing then became something else and disappeared. There’s always a measure of doubt...processes get subverted in some way. There were issues on a local level that were hijacked and moved up to a national level. Instead of solving it right here and now they would say „oh I think this is going to be managed elsewhere“, like fuels.” (Rory O’Connor, 22/10/09).

Therefore, evidence shows that the fourth principle of democratic deliberation, namely integrity and honesty, were critiqued and stakeholders reported that throughout the process and trust was lacking to a degree.

5.5.5 Accountability

This section assesses the accountability of stakeholders in the MPP process. Hajer’s (2005) fifth principle for the requirements of democratic deliberation is accountability. Government had to be accountable for all its actions as stated by a government representative:

“obviously by being sanctioned by top level ministers and state presidents on the top we’ve got an accountability and responsibility in terms of reporting back to national as well. So we have to be accountable for all our actions during the process. National government is responsible for the New Air Quality Act and we are responsible for implementation” (Bruce Dale, 21/10/09).

The community was also accountable to inform government of problems in the SDB. Government representative, Bruce Dale (21/10/09) highlighted that “if it wasn’t for the communities we probably would not have the MPP” (Bruce Dale, 21/10/09). Community had also demanded the accountability of industry and government:

“We demanded government to put the money in and put pressure to appoint a MPP manager...industry wanted to appoint their own manager but we wanted somebody from the community...it had to be the head of health...we demanded that we meet once a month...national and provincial had to be quarterly reported to, so we can’t just sit around and talk, so we were making progress – got the manager appointed, got funding commitment from all levels of government...forced industry to all put money in...we said if you don’t want to put it in we going to go without you” (Desmond D’Sa, 30/10/09).

Industry was also held accountable. Lee Deathe`, the SDB ABM manager reported that:

“Industry must be accountable. The city had to manage that process. The city played a role of monitoring that processes...setting up the processes put pressure on industry to start to comply...industry actually came with international standard thereafter...Industries can be held accountable now...can be held responsible and they spent a lot of money on upgrading their industry...they mostly committed to gas

because it worked out cheaper than improving their facilities” (Lee Deathe`, 09/11/09).

Therefore Hajer`s (2005) fifth principle of democratic deliberation, i.e. accountability, was achieved by local government becoming accountable for its actions. However the issue of taking dirty fuels off the agenda without the approval of the other stakeholders could be construed as a breakdown in the accountability of government. „Dirty fuels“ was one of the main objectives of the MPP and its removal from the agenda was possibly one of the main reasons for the community stakeholders to become so dissatisfied with the MPP processes.

5.5.6 Knowledge mobilisation through dialogue

This section examines whether the discussions in the MPP process led to the mobilisation of knowledge from all stakeholders to better inform the decision-making processes and learn from each other through dialogue. Hajer (2005) presents knowledge mobilisation as the sixth principle for democratic deliberation. Knowledge was amalgamated through the aid of workshops, research papers and websites. Knowledge was shared through providing access to information for all parties. Yet the dominant theme that has arisen in the evidence is the fact that almost all of the knowledge was based on science and scientific knowledge “everything is based on science, meteorology, ecology and how it all fits together” (Judy Bell, 09/11/09). Lay knowledge was not considered to be of great importance:

“I`m unaware of lay knowledge being positive, I think a lot of misinformation and fears came into the process and people were perhaps responding to inaccurate information or not proven information so it might have compromised the process. But once the science was put on the table and people were able to find a common language...they were able to connect and resolve further issues” (Lee Deathe`, 09/11/09).

Thus evidence from the interviews suggests that lay knowledge was not valued and therefore not mobilised as a knowledge resource in the process. Therefore the Hajer`s (2005) sixth principle of deliberation was partially fulfilled as not only was there an over reliance on science but there was also a communication problem with the discussions as discussed in Section 5.3. The role of science in the MPP will be examined further in Section 5.5.

5.6 The role of science

This section analyses the theme of the role of science in the MPP. This theme is split into three sub-themes which emerged from the evidence „science informs the discussion“ „civic

science“ and „lay knowledge was marginalised“. Science has played the dominant role in the MPP and therefore it will be analysed to assess how it has affected the deliberative processes of the MPP.

5.6.1 ‘Science informs the discussion’

Evidence shows very clearly that science has played a major role in the decision-making processes of the MPP. Scott and Barnett (2009) have explained how scientific knowledge carries power in a policy process. In the MPP processes, science is relied upon as „objective fact“, as the manager of the MPP explains:

“science played the objectifying role, it took an issue and transferred that into a scientific question that everyone understood and agreed that that this would be the objective, qualifying or quantifying it. Science was very beautiful...to explain the quality control of our data, to explain the various measurements we take because this is a very complex area. Science connects the facts. Science had quantified the problem. Science was the practical arm of the Air Quality Act” (Siva Chetty, 21/10/09).

Bobby Peek, representative of an NGO (18/11/09) states that: “if it wasn’t because of science the MPP would not have come into being ...we were saying „we are dying from the pollution...but industry wanted you to prove it” (Bobby Peek, 18/11/09). This is supported by SDCEA representative Rory O’Connor, (22/10/09) as he describes the MPP as being “couched in science that is ongoing (and) there was no way we could disprove anything without science” Therefore science enabled the MPP to operate as almost all data was scientific data derived from monitoring and measuring. This is typical of former traditional policymaking model that relies on a scientific basis for decision-making (Hajer and Wagenaar, 2003).

5.6.2 ‘Civic Science’

With the marginalisation of lay knowledge, SDCEA as a social movement, turned to science to empower themselves to provide an equal standing with government and industry in policy processes. This section discusses the ways SDCEA has used science within the decision-making processes of the MPP. SDCEA has produced their own scientific data on the effects of pollution in their area through combining lay knowledge and scientific knowledge. This combination of both types of knowledge is defined as „civic science“ (Scott and Barnett, 2009). These two types of knowledge are used in different circumstances, depending on which is the most appropriate. This section discusses two examples of SDCEA’s „civic science“, the use of GIS and the Bucket Brigade.

i) *The use of GIS*

Lay knowledge about the pollution in the SDB has built up over the years through the lived experience of communities. The importance of lived experience is explained in this quote from the Chairperson of SDCEA:

“The industry cannot match us, cannot match this evidence, because the evidence is about personal experience, it’s about that little child down the road with leukaemia, it’s about that mother who faces cancer, it’s about that father that works in the operations (industry) that’s got cancer, it’s about those children at Settlers school that have been having asthma effects, all the time, going home sick, parents sitting up at night wiping their children’s fever down, it’s about that personal experience that industry doesn’t know about. Their children live miles away from industry, they don’t experience poor health, they don’t experience the bad smells when you are eating your supper on a Friday night or a Saturday or Sunday that you have to take that whole supper and throw it away because suddenly the chemical smell is so strong that you can’t eat through nausea” (Desmond D’Sa, 30/10/09).

Bruce Dale, a government representative, states that community knowledge is important as it informs the identification of the problem under discussion: “we will only know the seriousness of the problem if they (community organisations) come to the party and get involved” The SDCEA manager Desmond D’Sa (21/10/09) goes on to depict on how lay knowledge informs science:

“We are not inferior to anyone, we are designed the same, same blood if we cut one another, our knowledge should be treated with respect just like you would treat other people’s knowledge with respect, so we argued that from the beginning. So it was important for us to bring that sort of knowledge to the table and a lot of it was accepted because we made sense to a lot of people. Although you have government at the table, doesn’t necessarily mean government knows it all, having a democratic government – people didn’t know about exclusion and the environment till people got wind of what we were talking about. So we shared the knowledge and that knowledge was used to deliberate...lay knowledge informed the science, people’s calls informed the GIS” (Desmond D’Sa, 30/10/09).

Therefore through combining their lay knowledge of the pollution in area, SDCEA have established their own GIS system where complaints received from their community are logged and mapped (Scott and Barnett, 2009). Each complaint is then followed up by requesting investigation into the problem by a pollution officer of the industry concerned and the relevant authorities (SDCEA, GIS pamphlet, date unknown). Through the use of their own GIS system, SDCEA has used scientific knowledge to situate and legitimate their lived experiences or „lay knowledge“. This case is similar to the Atkins et al (2007) case study on participatory GIS systems where communities had used GIS to map arsenic pollution in the water system in Bangladesh.

ii) *The Bucket Brigade*

SDCEA has sought scientific data to aid in the legitimisation of their lay knowledge through the collection and analysis of air samples in the SDB. SDCEA community members with assistance from an international NGO undertook this exercise to prove the existence of pollution from industry and to motivate government to act effectively against the industrial pollution. Through their contacts with the NGO groundWork SDCEA has incorporated the „Bucket Brigade⁹“ system with aid from the Global Community Monitor (GCM) in the USA (Scott and Barnett, 2009). SDCEA organised for the „Bucket Brigade“ to come to South Durban to take air samples of polluted air around the industries in the SDB (Scott and Barnett, 2009). Desmond D’Sa (30/10/09) from SDCEA states “it was the bucket sampling that got the MPP going because it was evidence (of air pollution)”. Evidence from this process resulted in revealing that there was a „cocktail of pollutants“ found in the air in South Durban in the vicinity of the refinery (Scott and Barnett, 2009). Plate 5.1 shows Desmond D’Sa taking a sample of air in a bucket.



Plate 5.1: Bucket Sampling (Clark, 13/12/04)

Bobby Peek (18/11/09) from groundWork feels that the “community outsmarted government by bringing community politics and science together...For me my perception is true unless you the industry can prove otherwise”. Des D’Sa (30/11/09) explains how the Bucket samples were used:

⁹The Bucket Brigade collects a sample of air through a vacuum system which is then couriered to the USA Environmental Protection Agency (EPA) for analysis (Scott and Barnett, 2009).

“When there is an explosion in the air in Durban we take the bucket samples. We have our bucket samples to collect samples of the air to know what exactly is in the air at that time, we can take our own samples and then compare it to the monitoring stations and see what chemicals are coming out and we can analyse, integrate and talk to the officials about it. As much as we are confronting industry we also playing an educational role which nobody had done” (Desmond D’Sa, 30/10/09).

Therefore SDCEA has undertaken their own science through the Bucket system, which can be termed „civic science“ which they used to challenge industry and the state. The Chairperson of SDCEA, Des D’Sa explains:

“We were also doing our own work, we were comparing the refineries, doing comparison studies, we compared the flaring, we put our own information in so we were suddenly becoming our own scientists! We were our own scientists, we wrote in our language, suddenly we were speaking our language, we don’t allow the bosses to speak in their language, we spoke in our language, what we understood, what affected us and how much it affected us (Desmond D’Sa, 30/10/09).

5.6.3 Lay knowledge was marginalised

As much as civic science has aided SDCEA to tackle the air pollution issue in the SDB, government still regards the lay knowledge of communities as „hype“ and it was marginalised. By this the state and industry consider that lay knowledge is „subjective“ and „emotional“ and therefore cannot be considered as objective knowledge within the positivist scientific model of knowledge production. A government representative states the government viewpoint as follows:

“Communities may have been emotional in terms of media and press but governments objective was to try and separate the emotion from the science – make sure there wasn’t a hype out there that shouldn’t be there, rather work with science than (information presented) at the possible height of emotions. Sometimes communities aren’t informed - they believe everyone is going to die in the SDB...there are other reasons for asthma - „cockroach droppings, carpets, fluffy toys” (Bruce Dale, 21/11/09).

The Manager of the MPP, Siva Chetty (21/10/09) was however sensitive to the importance of lay knowledge to the community:

“Lay knowledge would be the feeling and that’s the most difficult thing - the feelings...people still have issues you can’t just say „we sorted the problem out, what are you complaining about? You have to be sensitive about these things because they live next to an industry...living through and get a whiff...so the issue is still there. Our approach is a managerial approach. We took the national standard and guidelines and managed the process within the framework. Lay knowledge like „my auntie is dying down the road“ – we took that info and translated that into a reflective health study”.

Yet the stakeholders felt that the health study was redundant and did not adequately address the issues that were real to the community according to their knowledge of the health situation in the SDB. Issues were „pushed under the table“ as shown in the quotes below:

“It was just a glorified research project on illnesses...it replicated known stuff...wanted to have research about the neurological effects of pollution as well as cancer and leukaemia and how pollutant like benzene affects them but the whole thing became about SO₂ which was supposed to be an indicator of other presence of other chemicals but no emphasis was put on the other chemicals they just pushed SO₂ to the forefront and were so proud that they got that chemical reduced. So the health study was about us but it wasn't our health...you become a bit defeated...then you have to go through their process of the health study and if you call that effective decision-making then good for you” (Rory O'Connor, 22/10/09).

“The medical aspect was pushed under the table...it was so controversial...it kept getting pushed under the table because then we would still be asking „did my auntie die of...“it was understated and is still understated” (Lee Deathe`, 09/11/09).

Therefore, science was accepted as the authoritative form of knowledge in the MPP and dominated the decision-making process. Unlike scientific knowledge, lay knowledge is relational and links a range of experiences of the community to the main issue under discussion (Brown, 1997). Community lay knowledge was marginalised in the process as described by Brown (1997). This is what led to the communities undertaking their own „civic science“. Scott and Barnett (2009) show how science can overshadow other forms of knowledge in policy making processes. The community stakeholders have empowered themselves through civic science. Scott and Barnett (2009) have employed „civic science“ to legitimate their arguments against air pollution. Through the use of GIS and various publications and educational initiatives, SDCEA have used innovative tools to share their knowledge forms and advocate for cleaner air (Atkins et al, 2007; Scott and Barnett, 2009). Civic science has allowed SDCEA to move opportunistically between activism and deliberation with government for the purposes of social and environmental justice (Young, 2001; Scott and Barnett, 2009).

5.7 Conclusion

Chapter 5 aims to present the main themes derived from the results of the study. The themes emerge from the objectives of the study which formed the structure for the interview schedule

(See Appendix A). Therefore the themes of this dissertation answer each objective specifically.

The first theme in this chapter answers the first objective of explaining the goals and structure of the MPP process. The goals of the MPP were established due to the ineffectiveness of the previous pollution policy. The Atmospheric Pollution Prevention Act (Act 45 of 1965) was top-down, exclusionary legislation, which was not based on the local context and restricted access to information. Industries were by special legislation as the SDB is one of the national „key points“ of economic growth in South Africa and did not have to disclose their emissions. This led to public protesting against the high pollution levels in the area. Based on lay knowledge of the impact of air pollution on health, the media then heightened public awareness in 2000 of the issue of failing health in the SDB due to the polluting industries. There was national and local outrage about *The Mercury*'s revelations and this then invoked a response from government which announced the establishment of the MPP process in November 2000. The MPP had a number of „points“ which were to be addressed through a collaborative decision-making process. The MPP aimed to address the issue of air quality through establishing components of the MPP and undertaking a health study. The other issues raised by stakeholders in relation to the aims of the MPP, were to include stakeholders in the decision-making processes, collaborate effectively with them and allow full access to information such that a new air pollution management plan for the city of Durban could meet the shortcomings of the previous plan.

The MPP was structured by the creation of a monitoring network that fed live information to both the policymaking structures and the public. The MPP was a policy process that occurred through meetings that limited stakeholder participation to two representatives per stakeholder group. Two types of meetings were established, the first being the Stakeholder Consultative Forum (SCF) that included all the representatives stakeholders and the second meeting was the Inter-Governmental Coordinating Committee (IGCC) that was restricted to local, provincial and national government levels and departments. There were networks within stakeholder groups as they realised the need to collaborate but only with those who shared the same interests. There was little or no networking done between the stakeholder groups.

The results show that the decision-making processes of the MPP were met with many hurdles to democratic decision-making. Based on the evidence, the rules of policymaking within the

MPP were largely hierarchical and managed by government. The processes of engagement were very formal and controlled. Government was viewed as having the final say in the decision-making processes - thus government made the decisions. There were various problems that were identified in the evidence. The IGCC meeting was seen as a decision-making process that was run separately to the other stakeholders. The government and industry were seen to have more power than the community stakeholders who had to attend the meetings outside of their work hours. Therefore there was an unequal balance of power. There were communication problems where there was a misunderstanding of certain terms and the constant changing of representatives from national and provincial departments meant that delays in communication were experienced. There was the issue that discussion around the use of „dirty fuels“ was taken off the agenda. The phasing out of dirty fuels was supposed to be one of the MPP main components. The fuels debate was moved out of the arena of the MPP without stakeholder approval which led to many problems in trust and accountability of government.

Stakeholder perceptions of the MPP differed significantly as government felt that the MPP was a good form of deliberative governance while community stakeholders vehemently disagreed. The community stakeholders had first decided to deliberate in the MPP to make a difference in the policy management of the area. However, the community stakeholders felt disgruntled with the process as it took such a long time and ended up being managed in a top-down fashion. One stakeholder felt that he lost some of the power of activism by participating in the process. The process was called „bureaucratically democratic“ in that it was not a true form of democracy due to being steered by government and other more powerful industry stakeholders.

In the application of the five principles of deliberation, the evidence shows that in most of the principles, they are not fully operative thus reducing the quality of the democratic nature of the MPP process. Firstly, with regard to *reciprocity*, in the analysis of the degree of deliberation, the reciprocity of stakeholders was overshadowed by the dominance of scientific knowledge in the debate which detracted from full reciprocity being achieved. There were also some issues that were not addressed at the meetings and they were said to be „swept under the carpet“ – mainly the issue of dirty fuels. The *inclusiveness* of the MPP was found to be reduced in that the general public were not allowed to attend the meetings and the process was tightly controlled and managed. The *openness and accessibility* of the MPP was also

reduced as the meetings were not fully accessible to all stakeholders and technical jargon was used frequently because of the heavy reliance on science. Therefore if you could not understand the science you could not deliberate. There were issues of trust that affected how community and NGO stakeholders felt about the *integrity* of the process. It was alleged that issues were left out and the minutes of the meetings and that minutes were produced by government and therefore „biased“. The issue of dirty fuels also affected the *accountability* of the government but there was partial fulfilment of the accountability principle in that government delivered results for the targets set. The last principle of *mobilisation of knowledge* was also partially fulfilled as although community's identification of „hot spots“ had initially fed into the positioning of the monitoring stations, there was thereafter a dominance of scientific knowledge and sometimes a communication misunderstanding.

The role of science theme further revealed that the MPP relied heavily on scientific data but also that community had adapted its approach by creating „civic science“ with the use of GIS and the „Bucket Brigade“ to empower their position. Lay and scientific information was combined to produce civic science that aided the community in their participation in the MPP policy process. However lay knowledge was marginalised in the processes of the MPP where science dominated the debate.

Thus although the goals of MPP aimed to include and collaborate democratically with all stakeholders, the plan was structured in a top-down manner that closely resembled the structures of traditional policymaking. The processes of decision-making in the MPP were not truly democratic due to the various challenges that were experienced in the policymaking process. Therefore the MPP did not meet the requirements of a fully democratic deliberative process according to Hajer's (2005) six principles of democratic deliberation. The following chapter will provide a conclusion for the study.

Chapter 6

Summary and Conclusion

The South Durban Basin (SDB) was identified as an area of contention due to the inequalities of the previous government which had industry and residential areas side by side. The Multi-Point Plan (MPP) was developed to address the issue of pollution in the SDB in response to community protests. The MPP has resulted in lower levels of air pollution and better standards for managing industrial emissions. However, there are still issues of contention in the area of the SDB and communities still protest about the high levels of industrial pollution in the area. This would indicate that the outcomes of the MPP process is lacking in some respect. This dissertation aimed to critically review the deliberative processes in the formulation of the MPP to assess the possible shortcomings in its policymaking processes. Chapter 1 identified and introduced the research topic. A rationale was provided for the purpose of undertaking the study and the aim and objectives were stated. The aim of the dissertation is to analyse the SDB MPP as a form of deliberative governance in the network society. The four objectives of this study aim to analyse aspects of the MPP to answer to the aim of this thesis. The first objective aims to explain the goals and structure of the MPP, the second objective aims to describe the decision-making processes of the MPP, the third objective aims to examine the degree of deliberation that took place in the process of the MPP and the fourth objective sets out to analyse the role of science in the MPP.

Chapter 2 provides a theoretical framework to frame the study and apply to the results in order to obtain a critical understanding of the deliberative processes in the MPP. Previous policymaking processes were unsuitable for the demands of today's society both in the North and in the South. Expert-led, top-down, exclusionary forms of policymaking have proven to be outdated and inapplicable in today's society and unable to determine appropriate solutions to the complex contemporary environmental problems today. New forms of governance are emerging as people realise the need to collaborate in decision-making processes to solve complex issues and so achieve social and environmental justice. Through working together, various actors can collaborate through knowledge sharing that enables more effective and democratic decision-making as more voices are included. In this way, it is proposed that more socially acceptable and just policies are created through democratic processes of decision-making.

The network society has emerged globally since the 1980s where decision-making has shifted from a hierarchical to a networked process of interdependent and collaborative problem solving. These networks, however, face the challenges of deliberating with stakeholders holding diverse and varied views on both air quality management and processes of decision-making. The new forms of governance should aim to democratically include stakeholders in decision-making processes such that all voices can be heard in the policy processes. Through democratic policymaking more effective social and environmental management can occur.

Hajer (2005) proposes that through the use of deliberative policy analysis, the democratic qualities of discussion can be analysed. He proposes that there are six principles to democratic deliberation: reciprocity, inclusivity, openness and accessibility, integrity, accountability and knowledge mobilisation (Hajer, 2005). These principles need to be met in order for a policymaking process to be classified as truly deliberative and hence democratic. This dissertation has applied these principles to the policy processes of the MPP to determine to what extent democracy has been deepened during this process.

The literature also reviewed the concept of „civic science“ which can be described as the combination of lay knowledge and science that is employed to empower community and social movements to argue their positions in decision-making processes (Scott and Barnett, 2009). Science holds power in deliberative processes, therefore communities have used science to their advantage in validating their forms of lay knowledge through the use of innovative tools. The literature review provided a theoretical framework within which the results of the data are analysed.

The background chapter, Chapter 3 aims to position the MPP within the study area of the SDB. The historical background to the area has to be understood to understand the impact of air pollution on the health and well being of the people living in this area. Due to the historical racial zoning of the apartheid government, Indian and coloured communities were located in the SDB adjacent to industry. With the development of industry in the area, the community's quality of life was impacted by adjacent industries. The communities of the SDB were neglected by the local state while industrial growth was encouraged in the area. Eventually communities began to form civil society organisations and began peacefully protesting against the industrial pollution. SDCEA grew out of an alliance of 14 other smaller

community groups and led the battle in the „fight for clean air“. The MPP was finally established after much media attention and lobbying by SDCEA.

Chapter 4, the methodology chapter sets out the methods that this thesis used to collect data. This study is a qualitative study that derives a set of categories or themes, and their sub-themes, from the data collected. The approach adopted in the thesis is that of „interpretive policy analysis“ as proposed by Hajer and Wagenaar (2003) as a more appropriate method of analysis for understanding policy-making in the network society. The data and results produced are true within the context of the researcher and researched. The primary sources of data were oral evidence from interviews and documentary data. Secondary sources included books and journal articles. Data was collected purposively and data was interpreted using a thematic categorisation approach.

In Chapter 5, the data analysis, five broad themes emerged in the data. The first theme presents the reasons for the goals of the MPP as perceived by the respondents. The reasons for the establishment of the goals of the MPP are divided into two sub-themes: the ineffectiveness of the previous air pollution policy. The previous plan was top-down, exclusionary and technocentric as defined by Hajer and Wagenaar (2003). Thus the MPP aimed to address the shortcomings of the previous plan. The media attention around the problem resulted from the mobilisation of community groups, which then caused a response from government to address the issue, which they did in the form of establishing the MPP. Hajer and Wagenaar (2003) explain that when community protests, government must respond to remain legitimate. The media also plays a big part in influencing politics by bringing attention and awareness to the issues that affect those who may be voiceless (Hajer and Wagenaar, 2003). The MPP aimed to be inclusive of stakeholders and through consultation with stakeholders, to promote the sharing and open access of information. These concepts are critical as they relate to the new forms of governance in the network society that aim to promote more effective democratic decision-making

The second theme explains the structure of the MPP. The MPP was formally structured and based predominantly on science as the decision-making processes were fed by a network of monitoring stations. Hajer and Wagenaar (2003) state, however, that temporary informal decision-making structures are now more frequently producing better results than previous top-down policymaking procedures of the past. The meetings of the MPP structure were

formally run and managed by government. Access to the meetings was controlled and government held governmental meetings on the MPP separate to the other stakeholders. This is typical of former top-down hierarchical decision-making procedures that Hajer and Wagenaar (2003) and Oelofse et al (2006) describe. There were no networks amongst the range of different stakeholders as they had different interests and goals and only networked amongst themselves. Hajer and Wagenaar (2003) identify this as a one of the challenges to policymaking in such diverse societies.

In the third theme, the evidence collected for this study shows that the decision-making processes were not fully democratic due to the fact that the policymaking rules were determined by government, government made the decisions and there were problems of an unequal balance of power. Evidence showed that some issues were taken off the agenda without stakeholder agreement. Stakeholders differed in how they saw the policy process being staged as Hajer (2005) explains, that different actors view the policymaking processes differently which her terms „multisignification“. SDCEA as an activist organisation did chose to get involved in the deliberations with government. However, as Young (2001) describes, these deliberations were made in a setting that was controlled by the dominating structure, where some of the meetings were sometimes inaccessible and where industry and government had much more power than the community members. Young (2001) identifies this as the challenges of deliberating in a structurally unequal society, where the processes of deliberation are, restricted, unequally controlled, influenced and managed by those in power to suit themselves. This is reflected in the evidence which shows that government exerted power over the decision-making processes by controlling access to it, determining the rules of deliberation and having the final say in the decisions.

In the fourth theme, due to the data collected, the degree of democratic deliberation of the MPP can be classified as low as all of Hajer's (2005) principles of deliberation were not met or only partially met. The community stakeholders felt disgruntled with the discussion process that took too long and the issue that the phasing out dirty fuels was dropped from its agenda. Therefore there was a fault in the reciprocity of the deliberations as the argument on dirty fuels was not dealt with even though stakeholders wanted it to be addressed by the MPP. Although there was inclusion of stakeholders into the MPP these stakeholders were limited to two representatives from each of the groups and the public at large could not partake in the deliberations – thus not all voices were included. Hajer (2005) and Hajer and Wagenaar

(2003) explain how policymaking needs to be open to all who are affected by it to ensure democratic inclusion. As Dryzek (1996) points out, superficial inclusion is not enough. The MPP could be viewed as a weak form of representative democracy and not an expansive and inclusionary form of democracy which is highlighted by Hajer and Wagenaar (2003) as being necessary to deepen democracy. The MPP was not open to everyone and the use of technical jargon limited participants in the MPP to those who were well informed about the „science“ in the plan. Young (2001) states that access to policymaking processes is restricted by unequal access to resources, and thus the resource of scientific knowledge could be seen as a barrier to open participation in the case of the MPP. The integrity and honesty of the MPP was weakened by the lack of trust between the stakeholders and the evidence shows that the issue of taking dirty fuels off the agenda was perceived as a lack of integrity on the part of the state. The accountability of stakeholders in the MPP was also affected by this fact, however, the government were accountable through the use of meeting minutes. Yet evidence shows that these minutes may have been biased which Young (2001) describes as the influence of those in power. The knowledge mobilised in the deliberative process of the MPP was predominantly that of scientific data. Other forms of knowledge were side-lined which leads to the discussion of theme five: „the role of science“.

The fifth theme examines how science dominated the process of decision-making in the MPP. The communities however used „civic science“ to empower their positions in the debate (Scott and Barnett, 2009) Community representatives still felt that government had exerted more power and influence over the proceedings and thus felt marginalised. Lay knowledge in its pure form was also marginalised by government as just an emotional, subjective form of knowledge or „hype“. Brown (1997) has described this as the one of the main reasons for tensions between community and government stakeholders in decision-making processes.

In the MPP, terms that Hajer and Wagenaar (2003) have highlighted as indicators of the new forms of governance in the network society such as institutional capacity, governance, networks, complexity, trust, deliberation and interdependence were missing from the data collected, whereas state, power, government, authority, participation, interest groups have been predominantly reoccurring. Therefore in conclusion, the MPP cannot be classified as a truly deliberative form of governance as it was similar to the previous top-down methods of policymaking with government dominating the decision-making processes. Deliberation is defined by Hajer (2005) as the democratic quality of a discussion and the evidence has shown

that the discussions of the MPP engaged in weak forms of democracy that are based on outdated hierarchical forms of decision-making, unsuitable for policymaking in today's society. By applying Hajer (2005) and Young's (2001) principles of democratic deliberation, the conclusions that can be drawn are that the MPP policy process was only partially democratic. Democracy could have been deepened as the principles provided in the literature have shown. This study has provided empirical evidence of the qualitative dimensions of a policy process, the MPP. The lessons learned from this interpretive approach to analyse the democratic quality of the deliberative decision-making processes in the MPP can be applied to inform other forms of governance and environmental management processes. Interpretive policy analysis "*helps us to come to grips with the political phenomena of our time*" (Hajer and Wagenaar, 2003:7).

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Appendix

Interview Questions

Title: Environmental Decision Making: The South Durban Multi-Point Plan

Good morning/afternoon, my name is Kathryn Kasavel, I am a Masters student in the department of Environmental Sciences and I am conducting research on the deliberative decision making processes of the South Durban Multi-Point Plan. The aim of this study is to analyse the South Durban Basin Multi-Point Plan (MPP) as a form of deliberative governance.

I am conducting this interview with you with your consent and the information collected will be used solely for the purposes of completing my Masters dissertation. Your personal details are not required for this study and under no circumstances will they be disclosed without your consent. Your participation is voluntary and you may withdraw your permission to participate at any stage without any negative consequences. I am willing to provide your organisation with a copy of the report upon completion.

SECTION A: The goals and structure of the MPP

1. Can you please describe the reasons for the initiation of the South Durban Multi-Point plan?
2. How did policy making occur in previous air pollution policy planning in the SDB?
3. Why was there a need for a new type of policymaking?
4. What was different about the MPP?
5. Please explain the goals MPP
6. Explain in what ways was the MPP democratic?
7. Can you elaborate on the use of networks in the MPP?
8. Who were the main role players in the initiation of the MPP?
9. How was the MPP formulated?
10. How was the MPP structured?
11. Who was the overseeing committee
12. Who were the stakeholders involved in the MPP?
13. What part did you play in the MPP and how do you feel about the part you played?
14. Where were meetings staged and how often did these meetings occur?
15. Can you describe any difficulties that may have arisen from organizing these meetings?
16. Why did SDCEA an activist organization agree to engage in deliberations with government?

SECTION B: The decision making processes of the MPP

17. Can you describe how decision making occurred in the MPP?
18. Would you call the meetings of deliberations formal or informal and why?
19. What symbolic meanings if any are attached to the processes of decision-making in the MPP?
20. How did these symbolic meaning inform the decision-making process of the MPP?
21. How were the various stakeholders included in the process and describe any difficulties experienced in incorporation these various stakeholders
22. Were there any parties that dominated the debate and what was the consequence of this?
23. How were the solutions to the air pollution problems suggested?
24. What were the rules of the policy making process and how were these rules formulated?
25. How did the various stakeholders of the MPP interact?
26. Please elaborate on whether people learnt from each other or changed viewpoints in these processes of engagement
27. Would you describe the MPP as a new form of governance and why?

SECTION C: Examine the degree of deliberation that took place in the process of the MPP

28. Please elaborate on the reciprocity of the deliberative process that is where discussions are argumentative and both sides are heard including responses to one another's arguments?
29. Describe how the deliberative process was inclusive where all stakeholders were involved in the argumentative discussions with all interested parties having his or her say?
30. Was the deliberative process open and accessible to all and how?
31. How were the deliberations staged?
32. Did the deliberative processes and arguments use easily understood language without the use of technical jargon and why?
33. Was there integrity and honesty involved in the deliberative process of the MPP and how was this conveyed?
34. Please elaborate on the accountability of stakeholders in the deliberative processes of the MPP
35. Was knowledge from a variety of stakeholders and experts combined and how did this contribute to the effectiveness of the dialogue in the MPP deliberative processes

SECTION D: The role of science in the MPP

36. What role did science play in the MPP?
37. How has the community of the SDB used science in their input into the MPP?
38. Can you elaborate on how lay knowledge and scientific information worked together in the MPP
39. How has science influenced the both the deliberative processes and final outcomes of the MPP

THANK YOU