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The Development Effectiveness of Environmental and Social Impact Assessments in Large Dam Projects: A Case Study of Mohale Dam

MA Dissertation prepared for

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Abstract

An Environmental and Social Impact Assessment (ESIA) is a process that identifies, predicts and evaluates the potential consequences of proposed development projects. This is in order to improve project decisions and mitigate adverse environmental and social impacts. Although ESIA may be an important step towards mitigating the negative environmental and social impacts of development, ESIA is not a technocratic tool free from subjectivities. Instead, it is embedded in a broader political context that is shaped by dominant development ideologies and values.

This dissertation explores the '*development effectiveness*' of ESIAs in large dam projects using the WCD analytical approach. This approach builds on a *rights-and-risks* based approach to understanding the '*development effectiveness*' of a large dam project. The concept of '*development effectiveness*' is however a subjective one (WCD, 2000). As such, the '*development effectiveness*' of an ESIA must be evaluated by the stakeholders of a project. In this research report this is undertaken by evaluating the experiences of those affected by the construction of Mohale Dam in the Kingdom of Lesotho.

In order to evaluate the experiences of those affected by the construction of Mohale Dam, the research conducted a total of 38 in-depth interviews. These in-depth interviews took place with 15 key informants who had expert knowledge in the Lesotho Highlands Water Project, ESIAs and the social impacts of large dams. Added to this a total of 23 in-depth interviews were undertaken with households directly affected by the construction of Mohale Dam. A majority of these households were resettled (65%), while the other households (35%) remained in the Project Area but were given monetary compensation. The interviewed households were randomly selected from three directly affected villages, two of which were host villages. The villages were purposefully selected to represent the geographical distribution of affected households. The selected villages comprised Ha Mohale in the Highlands, Ha Nazareth in the Foothills and Ha Thaba Bosiu in the Lowlands. Ha Nazareth and Ha Thaba Bosiu comprised the host villages.

These findings show that the Mohale ESIA was not informed by the local context but rather by definitions of development that prioritised money, individualism and single, instead of multiple livelihood strategies. As such the Mohale ESIA ignored the cultural and social context within which the dam was being constructed. This created a situation whereby some of the mitigation measures were culturally and socially inappropriate. Thus the '*development effectiveness*' of the Mohale ESIA was directly compromised by the outcomes of some of the culturally inappropriate mitigation measures.

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Tandi Reilly

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Acronyms and abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ALC	Area Liaison Committees
API	Air Photo Interpretation
BOS	Bureau of Statistics
CLA	Community Liaison Assistant
DWA	Department of Water Affairs
EAP	Environmental Action Plan
EMP	Environmental Management Plan
ESIA	Environmental and Social Impact Assessment
ESSG	Environmental and Social Services Group, LHDA
FSL	Full Supply Level (of the dam)
GDP	Gross Domestic Product
GIS	Geographical Information System
GOL	Government of Lesotho
GPS	Global Positioning System
HIV	Human Immunodeficiency Syndrome
HSRC	Human Sciences Research Council
IBRD	International Bank of Reconstruction and Development (World Bank)
IFR	In-stream Flow Requirements
IRN	International Rivers Network
LEC	Lesotho Electricity Corporation
LFCD	Lesotho Fund for Community Development
LHDA	Lesotho Highlands Development Authority
LHWC	Lesotho Highlands Water Commission
LHWP	Lesotho Highlands Water Project
LSPP	Department of Lands, Surveys and Physical Planning (GOL)

M&E	Monitoring and Evaluation
MHSW	Ministry of Health and Social Welfare
MOA	Ministry of Agriculture (GOL)
NES	National Environment Secretariat
NGO	Non Governmental Organisation
OD	Operational Directive (of the World Bank re resettlement)
OP	Operational Policy (World Bank w.r.t. resettlement)
PAP	Project Affected People
PS	Performance Standards
RDAP	Resettlement and Development Action Plan
RDP	Rural Development Program
RSA	Republic of South Africa
SADC	Southern African Development Community
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
USD	United States Dollar
VIP	Ventilated Improved Pit (latrine)
WATSAN	Water Supply and Sanitation
WBG	World Bank Group
WCD	World Commission on Dams
WRMP	Water Resources Management Policy

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1 Introduction

Since the Second World War, large dams[1] have been perceived as a strategic investment able to meet the increasing water demands and energy requirements of growing economies. While many dams have regulated, stored and diverted water for improved agricultural and industrial production, large dam developments have also led to many negative social and environmental impacts that have adversely affected the lives of millions of people. Since 1945 the construction of over 15 000 large dams has led to the displacement of some 40 to 80 million people worldwide (WCD, 2000). Many of these people have been either inadequately resettled or compensated and as a result, their lives have irrevocably changed for the worse. Large dams are therefore no longer synonymous with modernisation and human progress; instead, there is a perception that dams destroy the environment and benefit only a few. As such the debates, controversies and conflicts surrounding large dams are no longer about dams alone. They form part of a wider debate that is confronted with the definitions of human progress and development (WCD, 2000). With this being said, it is therefore not surprising that the history of large dams traces a similar trajectory to the changes that have taken place within development theory.

Prior to the late 1970s, environmental and social impacts of large dam developments were not considered a priority in the decision-making and implementation processes of dams (WCD, 2000). Instead, environmental and social impacts were left outside the scope of an economic assessment framework that considered the benefits and costs associated with large dam developments. In the late 1970s this however changed when environmental and social issues became critical for evaluating the successes and failures of development projects. In a response to the calls for socially and environmentally responsible development projects, environmental and social impact assessments (ESIAs) were formulated to identify and mitigate the potentially adverse impacts of development projects. As a result, in the 1980s ESIAs were introduced to the decision-making processes of large dam developments (WCD, 2000).

Through ESIAs the voices of sociologists and environmentalists, as well as Non-Governmental Organisations (NGOs) and community members were introduced to the construction of large dams. This ensured that these developments reflected a fuller knowledge and understanding of the benefits, impacts and risks associated with large dams. As a result, over the last 30 years large dam developments have shifted from prioritising economic growth towards ensuring social and environmental sustainability.

Today with organisations like the International Rivers Network (IRN) and the World Commission on Dams (WCDs), a '*rights-and-risks*' based approach to development is being used to measure the social and environmental sustainability of large dams. The approach "seeks to understand how, and to what extent, a project may impact on people's rights" (WCD, 2000: 21). As such it is informed by a core value system that promotes the development criteria of equity, efficiency, participatory

[1] A large dam has a height of more than 15 metres, or has a dam of above 5 metres holding a reservoir volume of more than 3 million cubic metres (www.unesco.org/ev.php).

decision-making, sustainability, and accountability in large dam developments. Using a *'rights-and-risks'* based approach to development means prioritising social and environmental factors throughout project planning, development, implementation and operations (WCD, 2000). If this is achieved, the ability and the '*development effectiveness'* of the project to promote equity, sustainability, participatory decision-making and accountability is usually dramatically improved.

This dissertation explores the '*development effectiveness*' of ESIAs in large dam projects using the WCD analytical approach. This approach builds on a *rights-and-risks* based approach to understanding the '*development effectiveness*' of a large dam project. The concept of '*development effectiveness*' is however a subjective one (WCD, 2000). As such, the '*development effectiveness*' of an ESIA must be evaluated by the stakeholders of a project. In this research report this is undertaken by evaluating the experiences of those affected by the construction of Mohale Dam in the Kingdom of Lesotho.

In order to evaluate the experiences of those affected by the construction of Mohale Dam, the research conducted a total of 38 in-depth interviews. These in-depth interviews took place with 15 key informants who had expert knowledge in the Lesotho Highlands Water Project, ESIAs and the social impacts of large dams. Added to this a total of 23 in-depth interviews were undertaken with households directly affected by the construction of Mohale Dam. A majority of these households were resettled (65%), while 35% of the interviewed households remained in the Project Area but were given monetary compensation. These households were randomly selected from three directly affected villages, two of which were host villages. The villages were purposefully selected to represent the geographical distribution of affected households. The selected villages comprised Ha Mohale in the Highlands, Ha Nazareth in the Foothills and Ha Thaba Bosiu in the Lowlands. Ha Nazareth and Ha Thaba Bosiu comprised the host villages.

In the case of Mohale Dam, many of the respondents interviewed (47%) felt that their lives had improved. This was mainly attributed to improved roads, increased access to services and infrastructure. The Mohale ESIA was therefore successful in mitigating a number of the negative Project impacts and accentuating a number of the positive Project impacts. It can also be argued that the Mohale ESIA did fulfill some of the criteria laid out by the *rights-and-risks* based approach to development, which ensures that Project Affected People (PAP) are not adversely affected by a project. On the other hand, the majority of the respondents interviewed (53%) felt that their lives had deteriorated due to increased dependency on monetary compensation, the non-fulfillment of employment and the loss of communal assets.

Amongst these respondents, it was felt that the ESIA consultation process failed to prepare resettlees for a fully monetarised life. Prior to resettlement, money was one component of a diversified livelihood strategy that relied primarily on agricultural production, livestock rearing and communal assets. In addition, a majority of the respondents (65%) felt that the importance of communal relations in securing communal assets was ignored. While affected communities were not resettled as whole units but rather in individual households, integration with host communities was not prioritised. This negatively affected the social structure amongst host and resettled communities, which in effect restricted their access to communal assets and the use of natural resources. This was further compounded by the construction of modern brick houses to replace traditional structures. Although the resettlees chose these modern houses, the Lesotho Highlands Development Authority

(LHDA) is now of the opinion that these structures further alienated resettlees from host communities and created a false sense of inequality (LS/06).

These findings show that the Mohale ESIA was not informed by the local context but rather by definitions of development that prioritised money, individualism and single, instead of multiple livelihood strategies. As such the Mohale ESIA ignored the cultural and social context within which the dam was being constructed. This created a situation whereby some of the mitigation measures were culturally and socially inappropriate. Thus the '*development effectiveness*' of the Mohale ESIA was directly compromised by the outcomes of some of the culturally inappropriate mitigation measures.

Review of the Mohale ESIA literature shows that no ethnographic study was completed for the Mohale Dam. As such the Mohale ESIA was not equipped with a cultural understanding of the Highland Basotho[2]. This led to a top-down development approach that was not informed by the local norms, values, practices and definitions of development. Although stakeholder engagement did occur, public consultation did not incorporate local stakeholders into the decision-making processes of the Project. If an effective participatory process had occurred, the Mohale ESIA and accompanying mitigation measures would have been informed by a bottom-up development approach which was compatible with the Basotho Highland culture. In addition, an effective public consultation process would have better prepared PAP for resettlement. This leads to an overall conclusion that ESIAs have to understand the cultural and social context within which a large dam is being constructed in order to develop sustainable mitigation measures that benefit PAP. This requires a bottom-up development approach that is informed by ethnographic studies, local definitions of development, and the involvement of stakeholders in the decision-making process. As such, ESIAs have the potential to significantly contribute to the '*development effectiveness*' of large dam projects, if the ESIA decision-making process is informed by PAP and the social context. This dissertation therefore contributes to a sociological understanding of the '*development effectiveness*' of ESIA.

1.1 Research question

What is the development effectiveness of Environmental and Social Impact Assessments in large dam projects; a case study of Mohale Dam.

1.1.1 Subsidiary Research Questions

This study is informed by six subsidiary research questions. These questions provide focus and direction to the theoretical and methodological framework informing the research.

What are Environmental and Social Impact Assessments?

The research analyses the general theoretical debates informing ESIA. This entails an assessment of the general principles underlying ESIA, a historical overview of ESIA, international developments in ESIA, ESIA processes, models, and constraints to implementation, as well as, post-ESIA analysis.

[2] The Basotho are the people who populate the area within which the Mohale Dam is situated.

What is sustainable development?

The research roots ESIA in the development ideology of sustainable development. The study therefore links the growth of ESIA to sustainable development. As such the study provides an overview of development theory, sustainable development, the benefits and problems associated with sustainable development, as well as, the advances within sustainable development theory.

What is a "rights-based approach" to Environmental and Social Impact Assessments?

The research is grounded in a "rights-and-risks" based approach to development. As such this dissertation is informed by a core value system that promotes equity, efficiency, participatory decision-making, sustainability, and accountability. This requires the implementation of a standard analytical framework developed by the World Commission on Dams (2000). At the core of this analytical framework are six questions. These included:

- What were the projected versus actual benefits, costs and impacts?
- What were the unexpected benefits, costs and impacts?
- What was the distribution of costs and benefits – who gained and who lost?
- How were decisions made?
- Did the project comply with the criteria and guidelines of the day?
- How would this project be viewed in today's context in terms of lessons learned?

Using this methodological approach the dissertation explores the development effectiveness of the Mohale ESIA.

What is the Lesotho Highlands Water Project?

The selected research context is the Kingdom of Lesotho. The selected case study is Phase 1B of the Lesotho Highlands Water Project (LHWP). The LHWP comprises Phase 1A and Phase 1B, which includes the construction of Katse Dam (1987-1997) and Mohale Dam (1993-2004) respectively. The research provides general Project background information on the defined study area, as well as, a detailed description of Mohale Dam and the Mohale ESIA process.

What were some of the social impacts of Mohale Dam?

The study analyses the identified social impacts of Mohale ESIA in order to access the actual social impacts of the Project. This requires an understanding of the social context prior to the construction of the dam, as well as an understanding of the social context after the construction of the dam. The research therefore draws on the social data collected during Phase 1B of the LHWP and the subjective data collected using open-ended questions in one-to-one interviews with key informants.

Did the Mohale EIA effectively mitigate the negative social impacts of Mohale Dam?

The research analysed whether the Mohale ESIA was able to identify and mitigate the negative social impacts of Mohale Dam. This was achieved by assessing the mitigation measures adopted by the Lesotho Highlands Development Authority (LHDA) against the experiences of PAP. In order to achieve this, the research developed an understanding of the compensation, resettlement and livelihood restoration programmes implemented by the Project, as well as, their outcomes.

What development effect did the Mohale Dam have on PAP?

Using the WCD's analytical framework, the research determines whether Mohale Dam adversely affected the lives of PAP. The research therefore asks how PAP's lives were affected by Phase 1B and whether these changes benefited PAP. By answering these questions the research is able to determine the development effectiveness of the Mohale ESIA. However, this is a subjective analytical process that is guided by the experiences and outcomes of the Mohale Dam.

1.2 Research rationale

The study examines the development effectiveness of the Mohale ESIA by using the WCD's analytical approach to assessing large dam developments. Conducting such an assessment is important for many reasons. Firstly there is a need to apply new perspectives to ESIA practice that challenge conventional thinking. Secondly, there is a need to identify where improvements can be made to ESIAs, especially in the areas of resettlement, compensation and livelihood restoration, which by international best practice, are the greatest areas of risk to large dam projects. Hence, this dissertation examines why ESIAs have not been effective in mitigating the negative social impacts of large dams, and resettlement in particular.

In assessing the Mohale ESIA the research is essentially conducting a post-ESIA analysis. Such an assessment is important for many reasons. Firstly, comparing the predicted social impacts against the experienced impacts of Mohale Dam is essential in understanding the actual impacts of large dam projects. This is vital for improving the ESIA decision-making process, which directly affects the sustainability of a Project. Secondly, such an assessment can assist with understanding why the Mohale ESIA was ineffective in mitigating some of the negative social impacts associated with resettlement and compensation. This is essential for improving the mitigation strategies advanced by ESIAs. Thirdly, no comprehensive post-ESIA analysis was conducted on the Mohale ESIA. Given that the Lesotho Highlands Water Project (LHWP) is planning a further phase of construction, which is likely to affect more than 7,751 people (LHDA, 2008), it is essential that the Project learns from its past experiences so that mistakes are not repeated. Hence this dissertation can potentially contribute to improving the ESIA methodology and development decision-making processes of the LHWP.

In addition, the research is grounded in the WCD's analytical approach to assessing large dam developments. This assessment is important for a number of reasons. Firstly, it provides a sound, and already tested framework within which to analyse the Mohale ESIA. Secondly, this approach emphasizes the importance of understanding how and to what an extent a project may affect people's lives. This information is essential in reducing negative project impacts.

As a result of using this approach, the study therefore has the potential to contribute to a better understanding of the unintentional consequences of ESIAs. This is critical in improving the ESIA process of large dam projects.

1.3 Research methods

The study commenced in February 2006. Between February and October 2006 the study analysed the relevant primary and secondary literature of large dam projects and the Mohale ESIA. During February and June 2007 a total of 38 interviews were conducted with selected key informants. The main themes examined included:

- Environmental and Social Impact Assessment theory and models;
- Sustainable development theory;
- The Lesotho Highlands Water Project;
- The Mohale Environmental and Social Impact Assessment Process;
- The social impacts of large dam projects,
- The social impacts of the Mohale Dam; and
- The development effectiveness of the Mohale Environmental and Social Impact Assessment.

1.3.1 Research design

The research design triangulated qualitative in-depth interviews with a desktop study and literature review. The research was conducted in five clearly defined stages. These are detailed in Table 1-1.

Table 1-1: Stages of the research design

Stage	Description
Stage 1	Analysis of primary and secondary sources.
Stage 2	Interviews with key informants with expert knowledge on ESIAs.
Stage 3	Interviews with key informants with expert knowledge on the LHWP.
Stage 4	Interviews with key informants with expert knowledge on the Mohale ESIA.
Stage 5	In-depth interviews with households who were directly affected by Mohale Dam.

Each stage was designed to produce specific, yet interrelated data. These stages are further detailed below.

Stage one: An analysis of primary and secondary sources

The first stage of the research involved a document and literature survey of primary and secondary sources. This included seminal texts on ESIA theory and models, literature on development discourse, the World Bank, the LHWP and the Mohale ESIA. Some of the primary sources included:

- World Bank EIA Guidelines 1991a and 1991b;
- The Treaty of the Lesotho Highlands Water Project, 1986;
- Lesotho's National Environmental Policy, 1995;
- LHDA documents and surveys; and
- Phase 1B Environmental Impact Assessment Vol. 1 and Vol. 2, 1997.

The secondary sources included extant literature on Mohale Dam, research on the social impacts of Mohale Dam and interviews with people affected by Mohale Dam. Some of these secondary sources included:

- Ryan Hoover, 2001, *Pipe Dreams: The World Bank's failed efforts to Restore Lives and Livelihoods of Dam-affected People in Lesotho*, International River Network;
- Documents from the Panos Institute (1998 & 2001); and
- Documents from the Transformation Resource Centre (2004).

Stage one of the research relied predominantly on primary source material and documents gathered in journals, articles and policies.

Stage two: Interviews with Environmental and Social Impact Assessment Experts

The second stage of the research involved qualitative in-depth interviews with key informants with expert knowledge in ESIAs. The use of in-depth interviews gave respondents the freedom to express their opinions, values and assumptions. These interviews yielded rich descriptive data that was used to infer ideas on ESIAs, ESIA models and development discourse. A purposive sampling method was adopted to select respondents for interviewing. A list of the institutions and number of interviewed respondents is represented in Table 1-2:

Table 1-2: A List of instiutions and the number of respondents interviewed

No.	Code	Institution	Description	No. of respondents
1.	SA01	Environmental Monitoring Group	NGO	1
2.	SA02	SRK Consulting	Private enterprise	1
3.	SA03	Consult 4	Private enterprise	1
4.	SA04	Ninham Shands	Private enterprise	1
TOTAL				4

Stage two of the methodology process relied predominantly on qualitative data in order to examine respondent's perceptions and opinions of ESIAs.

Stage three: Interviews with Experts on the Lesotho Highlands Water Project

The third stage of the research entailed a purposive sample of respondents with expert knowledge on the Lesotho Highlands Water Project. These interviews revealed the contextual perceptions, values and ideas that informed the Mohale EIA process. A list of institutions and number of interviewed respondents is represented in Table 1-3:

Table 1-3: A List of instiutions and the number of respondents interviewed

No.	Code	Institution	Description	No. of respondents
1.	LS06 LS19	Lesotho Highlands Development Authority	LHWP implementing agency	2
2.	LS01	Transformation Resource Centre	NGO	2
3.	LS03	CARE Lesotho	NGO	1
4.	LS14	National University of Lesotho	Academic institution	1
5.	LS16	Survivors of Lesotho Dams	NGO	1
TOTAL				7

Stage three of the methodology process relied predominantly on qualitative data. This enabled the research to draw on in-depth descriptive interviews, which assisted with the interpretation and analysis of the primary and secondary data sources that covered the LHWP.

Stage four: Interviews with experts on the Mohale EIA

The fourth stage of the research included interviews with key informants who had expert knowledge of the Mohale ESIA, social impacts and the mitigation strategies. These respondents represented the following institutions:

Table 1-4: A List of instiutions and the number of respondents interviewed

No.	Code	Institution	Description	No. of respondents
1.	LS02	National Environmental Secretariat	Ministry of Tourism, Environmental and Culture	2
2.	LS04	Environmental Health	Ministry of Health and Social Welfare	1
3.	LS05	Sechaba Consultants	Private enterprise	1
TOTAL				4

Stage four of the methodology process relied predominantly on qualitative data. This enabled the research to draw on in-depth descriptive data in order to analyse primary and secondary sources on the Mohale ESIA.

Stage five: Interviews with people directly affected by the construction of Mohale Dam

Stage five of the research included interviews with households who were directly affected by the construction of Mohale Dam. All these households were given monetary compensation, while only some of these households were resettled. Households interviewed were randomly selected from three directly affected villages, two of which were host villages; Ha Mohale, Ha Nazareth (host village) and Ha Thaba Bosiu Lihaseng (host village). These three villages were purposefully selected to represent the geographical distribution of affected households. These geographical areas include the Highlands (Ha Mohale), Foothills (Ha Nazareth) and the Lowlands (Ha Thaba Bosiu Lihaseng).

The selection criteria for the interviewed households were based on their locality, their availability and their willingness to participate in the interview process. In each of the villages, permission was first gained from the residing Chief to interview households. Households were randomly selected. The one-on-one in-depth interviews took place in the homes of the respondents. These interviews were conducted in Sesotho.

A total of 23 households were interviewed (see Table 1-5).

Table 1-5: List of villages and number of households surveyed

No.	Code	Village	Topographic area	No. of interviews
1.	LS07 to LS14	Ha Mohale	Highlands	8
2.	LS15 to LS22	Ha Nazareth	Foothills	8
3.	LS23 to LS29	Thaba-Bosiu Lihaseng	Lowlands	7
TOTAL				23

1.3.2 Methods for data collection

The interviews were grouped into four different categories. Each group was guided by a different set of interview questions (see Appendix 1). The interviews for stages 2, 3, and 4 of the research were conducted in English. These interviews were conducted over three weeks.

The interviews conducted during stage 5 of the research took place in Sesotho. The researcher, who is English speaking, was assisted by a Mosotho PhD student studying in the Department of Sociology at the University of Witwatersrand. The interviews were conducted over a period of two weeks. These interviews gathered information from the demographic and socioeconomic characteristics of individual households to ownership of resources, use of materials for energy, sources and amounts of income and expenditure and opinions on compensation and resettlement.

1.3.3 Methods for data analysis

The data analysis was primarily qualitative. It drew on data collected using in-depth one-on-one interviews with key respondents' and affected households in the project area. The main themes

addressed in the interviews were broken down into key words and concepts. Each of these key words and concepts were given a code. The interview answers were then scanned for references to these key words and concepts, when identified, these statements or sentences were then attached to the code. This process organised the qualitative data into analytical units.

This data was then analysed using a standard framework developed by the World Commission on Dams (2000). At the core of this framework are six questions. These included:

- What were the projected versus actual benefits, costs and impacts?
- What were the unexpected benefits, costs and impacts?
- What was the distribution of costs and benefits – who gained and who lost?
- How were decisions made?
- Did the project comply with the criteria and guidelines of the day?
- How would this project be viewed in today's context in terms of lessons learned?

By systematically organising the data, the study was able to answer these questions and to evaluate the development effectiveness of the Mohale dam ESIA.

1.3.4 Case study

The LHWP is a multi-phase water transfer and hydro-electric power scheme that diverts water from Lesotho's Senqu River system to the upper reaches of the Vaal River in South Africa. The main of objectives of the LHWP include: (i) providing revenue to Lesotho by transferring water from Lesotho to South Africa; (ii) generating hydro-electric power for Lesotho and iii) promoting the general development of the remote and underdeveloped mountain regions of Lesotho (Lesotho Highlands Development Agency (LHDA), 2005).

The Project is being implemented through a phased scheme that comprises the construction of a series of dams and tunnels. Phase 1A was completed in 1998 with the construction of Katse Dam, Muela Hydropower Station and tail dam, and delivery tunnels to transfer water to the Vaal River system in South Africa. Phase 1B physical works were completed in 2003 with the construction of Mohale Dam, a 31km transfer tunnel from Mohale reservoir to Katse reservoir and the Matsoku weir and diversion tunnel (into Katse reservoir). So far the construction of Phase I (Phase 1A and Phase 1B together) is completed, while mitigation, enhancement and monitoring programmes still continue. (LHDA, 2005)

1.3.5 Ethical considerations

As with all research ethical issues need to be taken into account. Access to people for in-depth one-on-one interviews did not prove a considerable problem. Interviewees were made aware of the purpose behind their inclusion in the study. Tape recordings of the interviews were transcribed with no form of identification or personal details. As such confidentiality has been ensured by maintaining the respondents' anonymity.

Furthermore, the respondents were informed that any information collected would be for academic research purposes only, and would thus not be distributed or divulged to any other persons or organisations.

1.3.6 Research limitations

The study primarily focused on the social impacts of the Mohale dam. This required a five-step methodology that triangulated literature and document surveys with in-depth interviews.

The study faced several limitations, which potentially affects the significance of the research. These limitations include:

- The study relied heavily on qualitative data that is often perceived as "soft" and imprecise, whereas post-ESIA analysis usually comprises statistical techniques;
- There were difficulties in analysing the Mohale Environmental Impact Statements (1997) as there were significant differences between what was stated in the Environmental Impact Statement (EIS) and what actually happened;
- The research was unable to disaggregate project related impacts from local or regional factors that were independent of the project;
- Indirect or intangible effects (community cohesion, lifestyle, feelings of security, perceptions of threats and insecurities) were not easily identified, observed or measured;
- Interviews were conducted in both English and Sesotho. Data might have been lost or misinterpreted during the translation from Sesotho to English;
- More women were interviewed then men. In some instances, female respondents had difficulty answering some of the questions regarding resettlement and compensation as they were not the beneficiaries of the compensation and were usually not involved in the resettlement decision-making process;
- Interviews were only conducted with resettled households, while no interviews were conducted with households from the original host village;
- The focus of the research was primarily on the socio-economic impacts of Mohale Dam with no consideration given to the biophysical components of the study; and
- The generalisability of the research is limited to the Mohale ESIA although the research does apply the findings to general ESIA theory and practice.

1.3.7 Dissertation structure

The dissertation is structured in the following format:

Chapter	Description
Chapter 1	Introduction and research design
Chapter 2	A critique of development theory, policy & practice

Chapter 3	Understanding ESIA
Chapter 4	A rights-and-risks based approach to ESIAs
Chapter 5	The research context
Chapter 6	Mohale Dam: resettlement, compensation and livelihood restoration
Chapter 7	Case studies
Chapter 8	Conclusion
Chapter 9	References

2 A critique of development theory, policy and practice

2.1 Introduction

Development is a social construct that has persistently evaded a single definition and a definitive perspective on human progress. Throughout the ages scholars have struggled over defining the 'true' path(s) for human development. These challenges have invigorated imaginations, stimulated debate and resulted in a colourful patchwork of varied and interconnected development theories.

Different development theories have at various intervals dominated and challenged the subjective interpretations of human progress. During this struggle to define human progress, development theories have interacted with and affected one another in often competing, antagonistic and complementary relationships. These interactions are constituted by what Mann (1996: 1) calls 'multiple overlapping and intersecting socio-spatial networks of power'. However, there remains one development theory that currently controls the power to define development. This development theory is commonly known as Neoliberalism, which for the purposes of this research constitutes 'dominant development theory'.

Numerous scholars (Escobar, 1995, Crush, 1995, Redclift, 1997, Tucker, 1999, Scahs, 1999) define Neoliberalism as a social construct of the western world of modern civilization and the 'wealthier' nations of the 'First-world'. Due to Neoliberalism controlling the power to define development, many so-called 'poorer' nations of the 'Third-world' have adopted 'First-world' definitions and processes of development. It is therefore not surprising that development is measured using Western standards and indices that portray 'non-Western' or Third-world countries as 'underdeveloped' (Escobar, 1995, Crush, 1995, Redclift, 1997, Tucker, 1999, Sachs, 1999).

In the current world of Neoliberalism, 'underdevelopment' is believed to be the greatest cause of human deprivation and environmental degradation (Escobar, 1995). As such Neoliberalism is believed to be the solution to 'underdevelopment'. In the process the cultural, spiritual, ecological and communal knowledges of the 'underdeveloped' world are distorted and often destroyed (Redclift, 1987, Tucker, 1999). This has resulted in a plethora of critical development theories that challenge dominant development theory.

Critical development theorists (Escobar, 1995, Crush, 1995, Sachs, 1999, Rahema et al, 1997, Redclift, 1987, and Shiva, 2002) believe that the failures of development have led to an impasse in development theory. Some theorists completely reject development theory and argue for radical alternatives to development (Rahema et al, 1997, Redclift, 1987, and Shiva, 2002). Others argue for the reconstruction of development using a plurality of alternative and marginalised definitions of development that limit economic growth (Escobar, 1995, Crush, 1995, Sachs, 1999), while some critical theorists feel that development theories need to act as fields of critical inquiry in order to resolve development failures (Kothari et al, 2002, Leys, 1996).

In order to survive the onslaught of these critical theories, Neoliberalism has begun to consider social and environmental issues. However this takes place in an arena where dominant development theory still prioritises economic growth and more importantly, 'First-world' interests. Therefore, the

broadened and more inclusive definitions of development have subverted and co-opted 'non-western' definitions of development in order to maintain the status quo of western dominance. As a result, critical development theory has influenced and contributed to the ideological and structural shifts within dominant development theory. This is not to say that all development theories have equally contributed to the dominant constructions of development but rather that they have, in some way, influenced current definitions of development.

This chapter examines the interactions between competing and complementary development theories. It describes a historical overview of development discourse that takes into account the power shifts and conflicts within various models of development theory. It goes on to look at the central issues in development theory and the positions taken by different theorists. The final section of the chapter calls for an alternative development model that takes into account local definitions of development and promotes social and environmental justice.

2.2 A historical overview of development theory

Development theory is believed to have emerged after World War II, which largely destroyed Europe leaving cities in absolute ruin and thousands of people destitute (Sachs, 1999, Escobar, 1995). As a result of this destruction the western world instituted the ideal of 'development' and human prosperity. This occurred through the Bretton Woods financial and trading regime constituted by the International Monetary Fund (IMF), the World Bank (WB) and the International Trade Organisation[3] (Leys, 1996). These institutions were established to fund the reconstruction of Europe and set in motion a path of development that was based on state-led industrialisation and economic growth.

The first period of development theory was therefore based on a form of 'state-led' capitalism[4]. It came into prominence during the 1950s and was promoted by modernisation theory, which conceptualised development as economic growth, and the state as its prime agent (Leys, 1996). During the 1970s development theory shifted from state-led capitalism to a form of market-led capitalism. The second period of development theory is still with us today and is dominated by Neoliberalism (Moore, 1995). This form of capitalism strengthened market forces and curtailed the power of the state to control capital movements. As a result the free market is seen to be the prime mover of development, economic growth and liberal trade.

The third period of development theory runs parallel to the second period, which emerged in the 1970s. As a result the evolution of Neoliberalism has been influenced by an assortment of contested theories, which include dependency theory, feminism, counter-modernism, ecology, post-development theory, and critical development theory. Neoliberalism is therefore not a static theory but constantly recreating itself. As a result, Neoliberalism is the creation of a complex interaction between many competing and emerging developing theories. These 'other' development theories however do not interact as equals, but rather in a contested terrain of power. As such 'other' development theories have had varying degrees of influence on the theoretical developments of

[3] Today the Intenational Trade Organisation is known as the World Trade Organisation.

[4] This 'system' was based on 'Fordist' production in the west, American international dominance and the decolonisation and the emergence of the Third World (Moore, 1995).

Neoliberalism. One area of influence is witnessed with the emergence of Environmental Impact Assessments, which today have further evolved into ESIAs.

Although these theoretical critiques have positively influenced Neoliberalism, the core beliefs underlying Neoliberalism have not dramatically altered. Some would argue that Neoliberalism has incorporated a superficial concern for social and environmental risks so as to increase its support thereby maintaining its position of dominance (Escobar, 1995, Crush, 1995, Sachs, 1999). As such it is argued that linear growth models still define and control current paths to human progress and development.

2.2.1 Modernisation theory, human progress and linear growth models

Modernisation theory perceived development as a linear progression that propelled 'traditional' societies[5] forward towards 'modernity'[6] (Blomström & Hettne, 1984, Escobar, 1995). Through a process of modernisation, 'traditional' societies were required to industrialise their 'primitive' ways, abandon their backwardness and dramatically change their values, attitudes and norms (Webster, 1990, Leys, 1996).[7]

Modernisation theory grossly simplified the interaction between 'traditional' and 'modern' societies. It was believed that 'traditional' societies could not co-exist alongside, and within 'modern' societies, instead they had to be destroyed. 'Traditional' societies were also assumed to be monolithic units that could not resist or influence 'modern' societies. These assumptions rid 'traditional' societies of any agency.

However, critical development theorists contradict these assumptions by arguing that "modernity has affected, and been affected by virtually every society on the globe" (Tucker, 1999: 10). As such, Vincent Tucker (1999: 8) states; "In the real world there are no traditional societies, only ways at looking at societies as traditional". This same logic can be applied to 'underdeveloped' and

[5] A society was called 'traditional' when most relationships were based on ties to particular kin rather than general measures of class or race (Leys, 1996: 65). Other characteristics included; low levels of division of labour, dependence on agriculture, low rates of growth of production, largely local networks of exchange and restrictive administrative competence (Tucker, 1999). In addition 'traditional' societies were unsophisticated, underdeveloped and dependent on 'primitive' values of communalism and superstition.

[6] 'Modern' societies were believed to be the complete opposite of 'traditional' societies. They were guided by 'modern' norms and values of individualism, entrepreneurship and capital accumulation (Blomström et al, 1984, Coetzee, 2001, Moore, 1995, Webster, 1990). 'Modern' societies were complex, revolutionary, scientific and rational. They were organised, bureaucratic and allied to the concepts of time and efficiency. In advanced societies economics was believed to be the 'master of science' (Moore, 1995) and economic growth was the measure of development. As such 'traditional' societies had to evolve into 'modern', Western societies if they were to progress and develop.

[7] The distinction between 'traditional' and 'modern' societies was first derived from Talcott Parsons and Max Weber (Leys, 1996), who both believed in the evolutionary process of social change.

'developed' societies; possibly there are no 'underdeveloped' societies only the perception that societies are 'underdeveloped'. Nevertheless, modernisation is a discourse that has managed to maintain polarised constructs while propelling 'traditional' societies forward into modernity (Giddens, 1996). This process was driven by a neo-Keynesian consensus that assumed all states could and should interfere in the production and distribution of goods (Cammack, 2002). During this era governments were given the authority to approve capital moving across frontiers, fix exchange rates, determine domestic interest rates, and spend as they saw fit to secure national economic development.

As might be expected, modernisation theory incorporated a utilitarian view of nature (Woodhouse, 2002), which perceived no natural limits to exponential economic growth. Instead, it separated nature from development, and advanced a form of science that was supposed to dominate nature, and overcome natural constraints to economic growth. However, during the late-1960s and the early 1970s, the assumptions of state-led capitalism reached an impasse of grand proportions, as the global economy plummeted into recession. This led the way for market-led capitalism.

2.2.2 The rise of market-led capitalism

The profound shift from state-led capitalism to market-led capitalism in the 1970s was mainly due to an overarching belief in the failures of state-led capitalism. This was fuelled by anti-imperialism in the colonies, the rise of fascism (Cammock, 2002), and a recession in the global political economy which led to increased oil prices and the relative decline in the United States economy (Holton, 1992, Moore, 1995).

Under these deteriorating economic circumstances, many countries were forced to accept loans from the financial institutions of the WB and the IMF. It was believed that over inflated, bureaucratic states had suffocated economic growth (Graf, 1995) and prevented the market from ensuring economic development. As a result, the WB and the IMF implemented a loan process whereby borrowing countries had to undergo a programme of structural economic reform that fundamentally altered the role of the state in the economy. These reform programmes were formally known as Structural Adjustment Programmes (SAPs) and were perceived to be the "only acceptable strategy for development" (Holton, 1995).

With the implementation of SAPs, markets became the central institution of the economy, while governments were forced to reduce their deficits, cut social spending, privatise state owned assets, deregulate the economy, and promote trade-liberalisation. These so-called 'universal' macro-economic polices established a new Neoliberal orthodoxy that was faithful to the market and capitalist accumulation (Cammack, 2002).

During the 1980s, Lesotho was one of 34 African countries to undergo economic and political structural adjustment. With the implementation of these programmes, the state's role in economic development was reduced and taken up by the private sector (Mengisteab & Logan, 1995). These structural reforms encouraged growth in the export-oriented manufacturing sector, which attracted significant East Asian investment into the textile industry. Although these investments created some 40,000 jobs, their contributions to the eradication of poverty are questionable (LS03, 2006). Many of these factories are akin to "sweatshops" and do not commit to the principles, and practices of sustainable development.

Prior to the construction of these textile factories, an EIA was not conducted. As a result, no environmental management plans were developed to prevent waste from these factories entering the river system (LS05). In Lesotho, the Government is therefore implementing macroeconomic reforms that aim to increase the rate of economic growth. These economic gains have not necessarily registered significant gains in reducing poverty and environmental degradation. This however contradicts Neoliberalism's attempts to adopt broadened definitions of development that incorporate social and environmental concerns. As such, Neoliberalism is supposed to promote a form of sustainable economic growth that acknowledges the need for resource economics, the protection of the environment and the reduction of poverty (i.e. 'development with a human face'). However, Neoliberal macroeconomic policies have not succeeded in either preventing reducing poverty or preventing environmental degradation.

In Lesotho, where Neoliberalism dominates political definitions of development, poverty still remains pervasive (LS03, 2008). According to available data, more than 68% of the population live on less than R80 a month, while 49% are considered ultra poor living on less than R40 a month (African Development Bank, 2003). Poverty is also high amongst female-headed households, and households that depend on subsistence farming and remittances from mineworkers in the South Africa (African Development Bank, 2003). This is exacerbated by the continuing retrenchment of mineworkers in South Africa, which has significantly reduced migrant remittances. At the end of 2001, the total number of Basotho employed in the mines stood at 61 412 compared to 116 129 in 1993 (African Development Bank, 2003). Although Neoliberal economic reforms have improved economic growth in Lesotho, which currently stands at 3% (African Development Bank, 2003), it has not significantly reduced the incidence of poverty amongst the poor.

Cammack (2002) would argue that this is because Neoliberalism has disguised its economic logic as providing solutions to the very ills it generates. In doing so Neoliberalism has masqueraded its primarily economic goals and ambitions of increased economic growth. This has enabled Neoliberalism to co-opt the criticisms levelled at economic growth (Cammack, 2002) thereby continuously reinventing itself, and the authority that accompanies it (Escobar, 1995 & Moore, 1995). Neoliberalism's apparent concern for the environment and sustainable development, has translated into the adoption of Environmental and Social impact Assessments as a tool for sustainable development.

2.2.3 Sustainable development

Sustainable development is a concept that emerged in the late 1970's as a critique to the dominant development discourse of Neoliberalism. It attempted to highlight the inability to maintain high levels of economic growth without dramatically degrading or destroying the environment. In 1972 the Club of Rome released a research report, which concluded that exponential growth would exhaust finite resources, inorganic raw materials, land and the capacity of the environment to absorb pollution (Goldblatt, 1996). It argued that the natural limits to economic growth would be reached within the next one hundred years (Meadows, 1974) if industrialised and industrialising countries did not change their macroeconomic policies (Oelschlaeger, 1991). During this period a situation emerged where the universality and durability of economic development lost its validity (Sachs, 1999). "Humanity had now found itself in a state of economic and ecological crisis" (Capra, 1982:

26). It was this realisation that spurred the emergence of an alternative development model based on a conceptual framework of sustainable development.

Even though sustainable development is a contested concept that invokes diverse and varying ideas, it is commonly defined as: "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Bank Development Report, 2003). This definition is widely acclaimed by environmentalists, ecologists and economists for acknowledging the limits to natural resources (Mawhinney, 2002). It emphasizes the necessity of integrating the imperatives of environmental protection, economic development and social equity (Ratner, 2000). However, it would be an over statement to argue that sustainable development has resolved the ideological battles over environmental sustainability and development (Sachs, 1999). Three different perspectives of sustainable development diverge in the way they perceive and define the ecological limits to economic growth (Sachs, 1999). These three perspectives comprise the "contest perspective", the "astronaut's perspective" and the "home perspective" (Sachs, 1999).

The "contest perspective" aims to promote a form of economic growth that is compatible with environmental protection (Sachs, 1999). It assumes that environmental protection can occur simultaneously with economic growth through a process of ecological modernisation and resource management. This perspective currently dominates the conceptualisation of sustainable development and the management of nature (Oelschlaeger, 1991). It attempts to protect the natural environment for the preservation of increased economic growth and human consumption. With the adoption of resourcism, nature undergoes a process of commodification, whereby it is turned into a source of raw materials controlled by market mechanisms, eco-efficiency and technology. This takes place through a process of ecological modernisation that promotes greener technologies and the efficient use of natural resources (Fisher & Freudenberg, 2001). ESIAs are one such tool developed to ensure economic growth and environmental protection.

In Lesotho it is the contest perspective that currently informs sustainable development policy. In an interview with a key informant it was stated that "Development has to be sustainable. Social benefits have to be seen. Natural resources have to be protected and jobs have to be created" (LS02). This perspective is however deeply rooted in Neoliberalism and dominant definitions of development, which are criticised by the "astronaut's perspective" for not adequately challenging ecological deprivation (Sachs, 1999).

The "astronaut's perspective" proclaims "to save nothing less the planet" (Sachs, 1999: 84). Under this perspective environmentalists view the planet as a manageable object. These environmentalists show pictures of the Earth taken from outer space in order to remind the public of the fragility and finiteness of the Earth. The proponents of this perspective use sophisticated scientific technology to observe and manage "the planet like a patient in an intensive care unit" (Sachs, 1999: 83). This perspective however ignores the relevance of states, cultures, or the existence of nations and the aspirations of communities. Its main aim is to preserve and sustain the biophysical conception of the Earth. Due to its limited understanding of the interactions between the environment and people, this perspective is vehemently criticised by the "home perspective" (Sachs, 1999).

The "home perspective" believes that the environment suffers not from the inefficient allocation of natural resources but rather from 'overdevelopment'. This perspective argues that sustainable

development should resist economic growth, which threatens social and environmental justice. The "home perspective" therefore challenges both the "contest perspective" and the "astronaut's perspective". It confronts the "contest perspective's" conceptual promotion of two incompatible ends, accumulative economic growth and environmental protection. It argues that these two objectives nullify the coherency of sustainable development (Sachs, 1999). Thus the home perspective perceives the dominant conceptualisation of sustainable development as a vacuous concept with neither rational nor consistent ideologies, processes and end-goals.

In order to overcome the contradictions embedded in the "contest perspective", the "home perspective" advances an alternative approach to development that is based on the lessons learned from ecology (Redclift, 1987). The answer is to move from Neoliberalism to a 'regenerative economy'[8] mindful of the natural limits to growth, ecological and social equity. It is a vision of restraint and convergence that does not adhere to the ecological, and social trade-offs of economic growth. It is a perspective that adopts marginalised and alternative definitions of development that are based on ecological and cultural diversity, equity and justice. Thus this perspective draws not only on the theory of ecology, but also on critical development theory.

2.2.4 Critical development theory; environmental and social justice

Critical development theories are rooted in the origins of dependency theory,[9] and stem from a critical reaction to the failures of modernisation and Neoliberalism. The scholastic imaginations of critical development theorists like Tucker (1999), De Sousa Santos (1999), Escobar (1995), Crush (1995), Rahnema (1997) and Shiva (2002) have played a role in eroding the hegemonic supremacy of dominant development theory. These theories have sought to challenge the dominant meanings of development and question the processes through which development discourse is legitimised (Kothari et el, 2002).

Critical development theories include ecology, feminism, eco-development and post-modernism. These critical development theories share a number of common features. They are critical of established scientific knowledge, interested in cultural autonomy, and the defence of localised,

[8] It is an economy that discourages wasteful resource use and privileges non-fossil resources, and decentralised smaller-scale production pattern requiring more labour (Johannesburg Memo, 2002).

[9] Dependency theory emerged from the efforts of Gunder Frank (1966) who attempted to deconstruct and challenge the power relations between 'traditional' and 'modern' societies that perceived underdevelopment as the cause of human suffering, poverty and inequality. He argued that 'underdevelopment' was not due to the survival of 'traditional' institutions nor the shortages of capital accumulation, it was in part a result of the economic relations between the 'underdeveloped' and the developed countries (Frank, 1966). For dependency theorists developed countries were at the 'centre' of economic growth, liberal trade and political power, while 'underdeveloped' countries were marginalised to the periphery of the emerging global market. As such dependency theorists argued that modernisation theory ignored the exploitative economic and political power relationships between the 'centre' and the 'periphery' and hence they ignored the whole relationship of imperialism (Leys, 1996).

pluralistic grassroots movements (Escobar, 1995: 215). Even though critical development theories share similar characteristics, there is one main feature that separates them, their conceptualisation of the future of development theory.

Some critical development theories *reject* development and argue for radical alternatives (Rahema et al, 1997, Redclift, 1987). These critical theories are commonly categorised as post-development theory. Other critical development theories argue for the critical *reconstructions* of development using a plurality of alternative and marginalised definitions of development (Escobar, 1995, Crush, 1995, Giddens, 1996, Bond, 2000, Sachs, 2002). Considering the devastating social and environmental outcomes of development, it is no surprise that post-development theorists want a radical break from development. However, this reality is highly unlikely given that development has affected every conceivable aspect of human society. As such, the *reconstruction* of development advocates for a much more realistic option.

Reconstructing development advances what Escobar (1995) calls 'a hybridisation of development', which is based on interconnected micro-theories of development. The 'hybridisation' theory of development is predominately advocated by Escobar (1995) who, like Tucker (1999) and Leys (1996), is against searching for the metanarratives of development. Instead these theorists argue that development theory should comprise multiple micro-theories that search for alternative representations and localised practices of development. "A hybridisation of development will allow for new narratives, new ways of living, thinking and doing in order to unravel the hegemony of development" (Escobar, 1995: 20). This would ensure a break from a dominant development paradigm that forces societies to fit a 'universal' model of market-led capitalism and economic growth (Escobar, 1997: 89).

Development, as defined by Neoliberalism, is currently preventing people from defining their own development (Tucker, 1999). "Villagers have a clear idea of what development means and where it leads, even if crouched in different languages and different cultural practices" (Escobar, 1995: 50). This is what Escobar (1995: 52) calls "the different way development functions in different contexts". This perspective assumes that all cultures interpret or 'possess' an understanding of development. Such an analysis applies a Foucauldian assessment of development which considers development discourse, power and knowledge.

Like Escobar, Ferguson (1994) also uses a Foucauldian analysis of 'power', but instead of deconstructing the concept of development, he reveals the 'unintentional' effects of development discourse on local communities. This makes possible a systematic analysis of the unintentional outcomes of development, which are usually a result of development agencies or actors who are unaware of their own development discourse and assumptions. Therefore, there exists a complex relationship between the intentionality and the outcomes of development projects. As a result, "some projects serve dominant power unintentionally" (Ferguson, 1994: 19).

In Ferguson's (1994) study of a rural livestock and range management project in Thaba Tseka, Lesotho, he established that even though the development project was a "failure" it did have many "side-effects", which fundamentally impacted on the region. The project established a new district administration and gave the GOL a much stronger presence in the area. As a direct result of the project a host of government services became available in Thaba Tseka. The project therefore

"unintentionally" played an "instrumental role" in increasing the government's presence and political control in the region. As such Ferguson (1994) argues; that what is most important is not the success or failure of development projects, but rather their impacts. This is because it is the "side-effects" of development projects, which reveal the 'logic' of development that transcends the intentions of the planner. "In this perspective, the "development" apparatus in Lesotho is not a machine for eliminating poverty… it is a machine for reinforcing and expanding the exercise of bureaucratic state power, which incidentally takes "poverty" as its point of entry" (Ferguson, 1994: 255). The "unintentional consequences of development" is a concept that will be further discussed in relation to the findings of this research. During Phase 1B, monetary compensation was prioritised as the most important form of compensation. This unintentionally created incidences of dependency amongst PAP, as money no longer formed one component of a multiple livelihood strategy, it now formed the main component of a multiple livelihood strategy. The Mohale compensation process therefore did not take into account the imposition of western ideals, which unintentionally prioritised money over local livelihood strategies.

A localised reformulation of development is therefore critical to challenging the unintentional impacts of dominant development discourse. However, this needs to take place within an ecological framework that prioritises the protection of the environment. This is essential given that definitions and processes of development affect the ways in which people see themselves, relate to one another and to the environment. Critical development theory does not necessarily challenge exponential growth nor does it ensure a more sustainable form of development. This is because ecological constraints to development are usually not prioritised in anthropocentric constructions of development. As such critical development theory will only succeed in reconstructing development if it promotes a form of development that establishes links between social and environmental injustices.

2.3 Conclusion

Development theories are a social construct that present different interpretations of human progress. Neoliberalism is currently the dominant development theory informing definitions of development. However the criticisms levelled at Neoliberalism have resulted in Neoliberalism adopting 'socially and environmentally' responsible projects that promote a form of sustainable development. As a result, development theory has not reached an impasse. On the contrary, 'new' definitions of development and 'new' models of development are emerging. While economic criteria remain important, social and environmental criteria have entered the development debate.

With increased attention on social and environmental concerns, ESIAs are perceived as a critical tool for the promotion of sustainable development. As such the chapter concludes that ESIAs are a result of the competing, antagonistic and complementary relationships that occur within development theory. It is therefore these 'multiple overlapping and intersecting socio-spatial networks of power' that occur within and between development theories that affect the development potential of ESIAs. The means through which this takes place is explored in chapter 3 with its central focus on ESIAs.

3 Understanding environmental & social impact assessment

3.1 Introduction

An Environmental Impact Assessment (EIA) is a systematic process that identifies, predicts and evaluates the potential consequences of a proposed development project. It is essentially a project planning tool that contributes to the advancement of a form of *sustainable development*. This is in order to improve project decisions and mitigate adverse environmental and social impacts. EIAs therefore have the potential to manage development by ensuring that better decisions are made to meet the challenges of sustainable development (Glassen et al, 1994, Harrop & Nixon, 1999).

Since the early 1970s, EIAs have been utilised to identify and mitigate adverse environmental impacts. Common understanding would date the emergence of EIA to the National Environmental Policy Act of 1969 (NEPA) in the United States (Burdge & Vanclay, 1995, Barrow, 1997, Carley & Derow, 1980), which served as a model for similar legislation in other jurisdictions around the world. Within a few years, a separate field of Social Impact Assessment (SIA) emerged. This was firstly because of the perceived deficiency of NEPA to respond fully to environmental impacts when social impacts were being ignored. Secondly, this was a result of the shifts in dominant development theory which called for sustainable development with a human face. Thirdly, this was a result of the broadened definitions of the environment, which sought to include interactions between humans and nature, and as a result, most EIAs comprise a SIA component and are therefore, known as Environmental and Social Impact Assessments (ESIAs).

ESIA is now used world-wide as an instrument for development planning and environmental resource management. In order to perform this function, ESIAs are multi-dimensional in purpose, scope and approach (Vanclay, Sadler, Verocai, 2000). They blend administration, planning, analysis and public participation in a process that takes place prior to the implementation of project decisions (Barrow, 1997). However, this decision-making process is often affected by power relations, inequalities and politics. This is because the ESIA process is embedded in a political framework that usually specifies the role of the ESIA in decision-making and planning (Brudge & Vanclay, 1995). As such decisions about whether a project should proceed, or what compensation a developer should pay, are ultimately and inherently political.

Most impact assessment decision-making is a result of a political bargaining process (Carley & Derow, 1980) that entails overlapping and intersecting power struggles. This being said, ESIA should be placed within a broader developmental context that incorporates environmental and economic policy frameworks, political power struggles and development discourse. By placing ESIAs in a broader development framework one is able to understand the “development logic” used in implementing ESIAs. As such this makes possible a systematic analysis of the social reality that results from the effects of development and thus the ESIA process.

Ferguson (1994) promotes such an approach by showing the affects of development discourse on a rural livestock and range management project in Thaba Tseka, Lesotho. By adopting this approach Ferguson was able to show the ‘unintentional’ effects that development projects have on local communities. As a result, “some projects serve power unintentionally” (Ferguson, 1994: 19). This is

because development agencies or actors are sometimes unaware of the discourse driving them. Therefore, there exists a complex relationship between the intentionality and the outcomes of development projects.

This chapter therefore uses a Foucauldian analysis of ESIA to reveal the dynamics of discourse and power operating within ESIAs. It also uses a Foucauldian analysis as adopted by Ferguson (1994) to start developing an understanding of the impacts and side-effects of the Mohale ESIA. This is necessary in order to display the 'logic' of the development discourse informing the implementation of the Mohale ESIA. The chapter primarily focuses on SIA as one component of a larger ESIA process. As such the chapter is able to address the value of SIA, the basic methods and procedures used in SIA and the challenges faced by SIA in producing equitable and productive results. The chapter does refer to SIA in the context of large dams but this is not its focus *per se*. It concludes that the broader development discourse and political context within which ESIAs are designed and implemented directly affect the outcomes and "side-effects" of the ESIA, and inherently, the SIA.

3.2 A historical overview of ESIA

The impetus for EIAs was primarily stimulated by a piece of United States (US) legislation, the National Environmental Policy Act (NEPA) of 1969, which came into force on the 1st January 1970 (Burdge & Vanclay, 1995, Barrow, 1997, Carley & Derow, 1980). The primary motive of NEPA was to help mitigate the environment degradation caused by new developments. The legal requirements set out in NEPA necessitated a research process termed Environmental Impact Assessment (EIA). Interest in EIA was further inspired and supported by two of the most influential environmental publications of the 1980s; (i) The World Conservation Strategy of 1980 and; (ii) the World Commission on Environment and Development, the Brundtland Report of 1987 (Barrow, 1997).

The pre-eminent report of the Brundtland Commission recognised EIAs as an essential component in the promotion of sustainable development (Gilpin, 1995). The report prioritised greater public participation for communities in decisions that affected the environment and the use of local resources (Brundtland Commission, 1987). The emphasis on public participation was clearly building on the 1972 Stockholm Declaration and the 1982 Nairobi Declaration, which noted the problems arising from a lack of public involvement in decision-making processes, as well as the lack of institutional capacity and skilled personnel able to ensure quality environmental checks (Gilpin, 1995).

Added to this, the evolution of institutional structures, and the strengthening of environmental law, played a vital role in prompting the political will needed to implement EIAs. This resulted from a number of other diverse factors that included; the media and information revolution, growing concern on the part of the public and non-governmental organisations for the environment, the activities of the environmental movement, and the development of assessment techniques (Barrow, 1997). Following the United Nations Conference on the Human Environment held in Stockholm in 1972, environmental agencies and ministries were formed at a rapid rate. By 1988 approximately 60 agencies were created and at least another 40 agencies were created by 1992 (WCD, 2000). EIA was initially perceived as an objective, technocratic process that emphasized quantitative biophysical

impacts (Barrow, 1997). It evolved from a variety of diverse technical fields that included land use planning, cost-benefit analysis, and multiple-objective analysis (Barrow, 1997).

However, while EIAs were becoming increasingly sophisticated in the biophysical analysis, they were unable to demonstrate the successful incorporation of social scientific knowledge (Carley & Derow, 1980). At the outset EIAs ignored the interconnectedness of the biophysical environment and the social environment. It became increasingly evident that development projects which altered the natural environment also changed the cultural, economic and social organisation of human populations. This perspective emphasized the need to expand the biophysical aspects of EIA to include social and socio-economic factors. It required EIA to abandon narrow definitions of the environment that conceptually reduced the environment to biophysics. These developments gave rise to Social Impact Assessments (SIAs), which emphasized the demographic, social and economic impacts of development projects (Carley & Derow, 1980).

SIAs analyse, mitigate, monitor and manage the positive and negative social impacts of development projects. It is a social-scientific exercise that aims at predicting, and mitigating the effects of social change induced by a project. This occurs by applying the skills of various academic disciplines, and ensuring public involvement in decision-making processes. In other words SIA utilises a mix of quantitative, qualitative and innovative research strategies to reflect the cultural and social concerns of local communities (Cock & Webster, 1996).

The roots of SIA lie, in part, in the evolution of development theory. In the late 1960's and early 1970's critical development theories of ecology, feminism, counter-modernism, and post-modernism, highlighted the negative affects of development on culture, women, and the livelihoods of indigenous people. The social impacts of development projects could no longer be ignored by developers and decision-makers. Since then, the social impacts of a development project have been considered alongside the environmental and economic impacts of a project. SIA has therefore become an integral component of EIA (although to varying degrees) as nations around the world have adopted, and modified original EIA models to include Environmental and Social Impact Assessments (ESIA). Although both EIA and SIA involve some similar tasks they are increasingly viewed as quite different activities.

The two fields of impact assessment have different theoretical bases and methodological traditions. This reflects the differing subject matter, the biophysical on the one hand and the social and socio-economic on the other hand. Both techniques, however, are closely related and overlap in focus and interest. They are often required for an analysis of the same proposed project and impacts (Carley & Derow, 1980) and as such, SIA complements the study of natural or biophysical environmental impacts with information on social and socio-economic impacts (Carley & Derow, 1980: 4).

3.3 ESIA models, procedures and perspectives

Although ESIAs established under national laws and policies of international agencies do differ in a number of respects, they share widely accepted processes and methods (Sadler et al, 2000). This process is outlined in Figure 3.1, and details the common framework for ESIA practices.

3.3.1 Assessment processes

The assessment process essentially involves the complete ESIA. Assessment terminology does however vary between different countries in both meaning of terms and in the scope of their application (Barrow, 1997). However, there are some widely accepted definitions of concepts and terms. Some of these concepts and terms are defined below:

- Environmental Impacts

Environmental impacts of a project are those resultant changes in environmental parameters, in space and time, compared with what would have happened had the project not been undertaken (Glassen et al, 1994).

- Social Impacts

Social impacts include all social and cultural consequences to human populations of any development project that alter the way in which people live, work, play, relate to one another, organise to meet their needs, and generally cope as members of society (Brudge & Vanclay, 1995).

- Cultural Impacts

Cultural impacts involve changes to the norms, values, and beliefs of individuals that guide and rationalise their cognition of themselves and their society (Burdge & Vanclay, 1995, Barrow, 1997).

- Socio-economic Impacts

Socio-economic impacts describe changes in the day-to-day quality of life of people and communities. This includes changes to livelihoods strategies and production processes (Glassen et al, 1994).

- Screening

Screening determines whether or not a proposal should be subject to an ESIA and, if so, at what level of detail (IAIA, 2003).

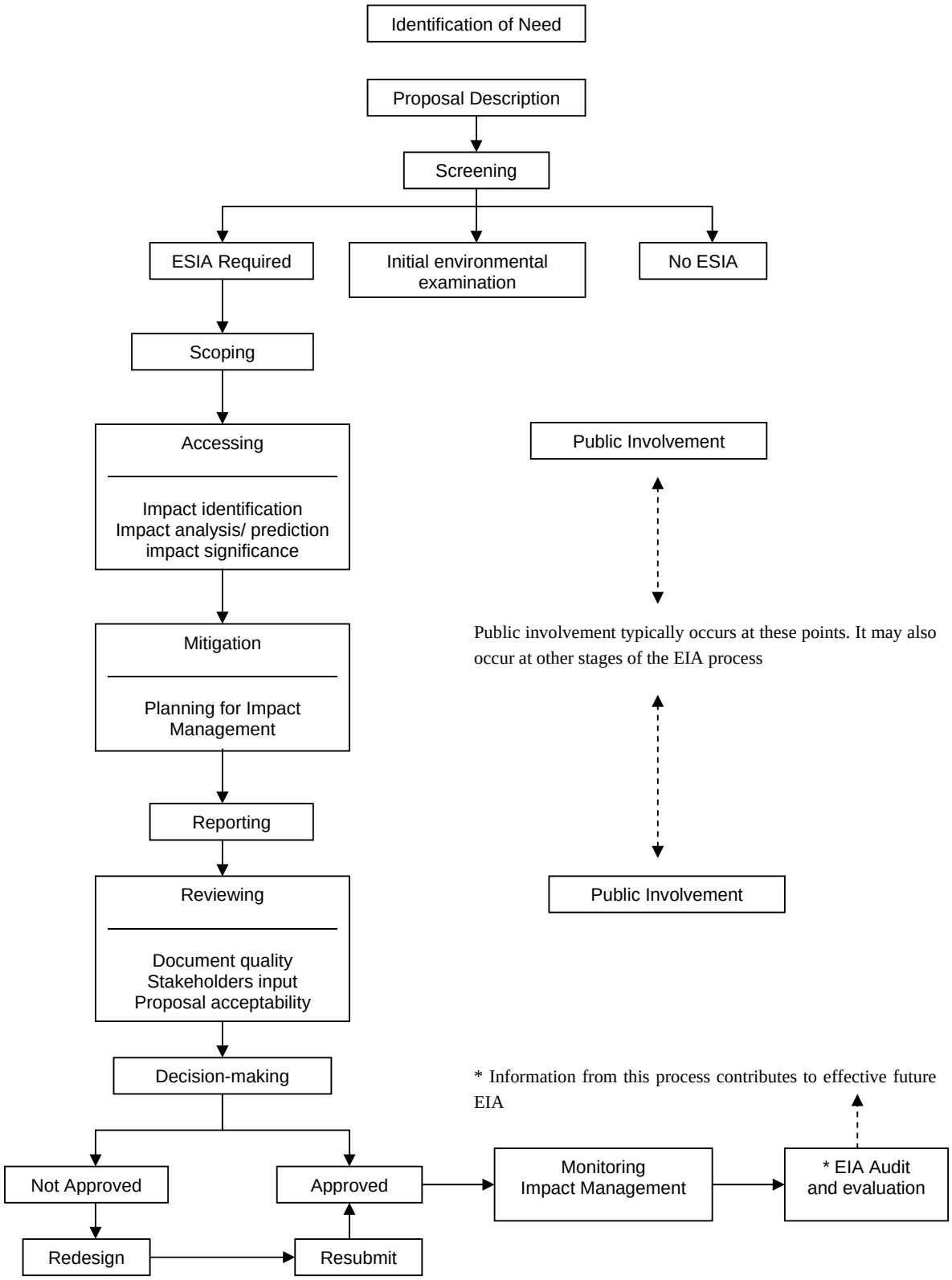
- Scoping

Scoping identifies the environmental, social and economic issues and impacts that are likely to result from the development (IAIA, 2003).

- Public Involvement

Public involvement is a process for involving the public in the decision-making processes of the ESIA. This can be brought about through either consultation or participation, the key difference being the degree to which those involved in the process are able to influence, share, or control decision-making (Roberts, 1995).

Figure 3-1: Environmental Assessment Process (Sadler et al, 2000: 6)



- Mitigation

Mitigation of adverse effects refers to the methods proposed by developers for reducing alleviating or otherwise ameliorating the effects of a project (Fortlage, 1990). These include description of mitigation measures to be taken to avoid, reduce and if possible, remedy significant[10] adverse effects (Glassen et al, 1994, Treweek, 1996).

- Impact Management

Impact management establishes the measures that are necessary to avoid, minimise or offset predicted adverse impacts and, where appropriate, to incorporate these into an environmental management plan or system (IAIA, 2003).

- ESIA Audit and Evaluation

ESIA audits determine the ability of the ESIA to identify environmental and social impacts of a development, and the effectiveness of the mitigation measures. ESIA audits are essential in strengthening future ESIA applications, mitigation measures and management.

Even though these terms and concepts describe unique stages in the assessment process, they are subcomponents of one process. This is because environmental, social, cultural and socio-economic impacts are interrelated. Economic and environmental aspects of a problem cannot be separated from social aspects. They are interlocking subsystems of one system. As such change in any of these domains will lead to changes in another domain. The strength of ESIA therefore exists in its ability to link and relate these separate but interdependent processes. As such good ESIA practice accepts that social, economic and environmental impacts are inherently and inextricably interconnected (IAIA, 2003).

The problem of integrating economic, social, and environmental data has received little attention in ESIA literature (Fortlage, 1990). This contradiction is possibly a result of the different scientific approaches adopted by EIA and SIA practitioners. While natural science is associated with 'hard' science[11], social science is often associated with 'soft' science[12]. These perceptions of scientific

[10] The concept of 'significance' remains highly subjective depending initially upon the opinion of officers, elected persons, and the public. Some governments, like South Africa for example, have sought to resolve the problem by scheduling categories of activities which must have an EIA. These statutory schedules remove the responsibility of developers defining 'significance' (Gilpin, 1995).

11 "Hard science" is a term often used to describe natural sciences and physical sciences as distinct from social science. The hard sciences are believed to rely on scientific research methods that are empirical, quantitative and often focus on experimental replicablity, accuracy and objectivity.

12 "Soft science" is a term often used to describe academic research or scholarship which is purportedly "social scientific". It is research which is not based on reproducible experimental and quantitative data, but

rigour influence the compatibility and integration of these 'two' sciences. In addition, analysing the interconnected and overlapping facets of social, environmental, and economic impacts usually results in enormous reports and extensive amounts of unmanageable data. This problem also points to a related difficulty of knowing how to integrate and indicate trade-offs between social, environmental and economic impacts. These problems commonly arise when economic progress imposes too many social and environmental costs on society, or when environmental protection imposes too many social and economic costs on society. In order to remedy this problem Vanclay et al (2000) argues that ESIA should include an estimate of the costs of environmental damage, as well as, the remedying mitigation strategies. "Without this information, it is harder to argue for changes to the project, or the consideration of alternatives (Vanclay et al, 2000: 34)."

As a rule of thumb, many economists regard a development project as desirable only if total project benefits, including those arising from environmental improvement, exceed total project costs, including environmental protection costs, and the costs of any remaining damage to the environment (Hufschmidt et al in Vanclay et al,2000). In the long run ESIAs may reduce project costs because the cost of rectifying environmental and social impacts usually outweighs the cost of implementing mitigation strategies. However, the processes used to resolve the tension between social, environmental and economic impacts are often affected by the assessment perspectives informing the assessment process.

ESIA is commonly perceived by engineers and scientists as a 'planning tool'. This perspective is referred to as the 'technocratic paradigm' (Ortolano et al, 1995). In this model, ESIA is perceived as an element of the 'rational model' of planning and decision-making. Criteria for evaluating project impacts are perceived to be neutral, scientific and completely objective, with the analyst assuming the role of an expert engaged in detached scientific inquiry (Cock & Webster, 1996). Under this model the assessment process is perceived to be implemented mechanically without interference from political and economic interests informed by a particular development discourse.

The technocratic paradigm is criticised for ignoring political and economic interests that affect decisions-making processes. This is because decisions are influenced by 'non-scientific' factors such as development discourse, and powerful interest groups. Such a functionalist impact assessments process overlooks the value and meaning given to interpret objective data. They ignore social conflict and give only a token nod to public involvement in the assessment process (Roberts, 1995). As a result, mitigation strategies are often determined by the developer's narrow goals, intraorganisational politics and interorganisational rivalries (Ortolano et al, 1995). These technocratic assessments are functionalist processes that assume scientific knowledge is objective, measurable and free from political manipulation. Even though ESIA reports are supposedly unbiased and impartial, in reality of course, agencies that specialise in building large dams will produce ESIA reports that favour large dams over any other alternatives (Vanclay et al, 2000).

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rather on qualitative and often unempirical data. The term is usually used as a contrast to hard science and/or natural science.

A more realistic conception of ESIA embraces the political realities that affect the decision-making processes involved in the assessment (Barrow, 1997, Glassen et al, 1994, Ortolano & Shepherd, 1995). This perspective argues that ESIA is carried out in political and economic contexts that give meaning and value to 'objective', scientific data. As such ESIA is deeply affected by the political reality within which it is conducted. This perspective therefore states that ESIA cannot be ignorant of the political and economic interests affecting the way in which decisions are made. In addition ESIA processes cannot be ignorant of the development ideology informing the political and economic processes underpinning the ESIA. As such ESIA is not merely a technique; it is a political process (Glassen et al, 1994) that is essentially steeped in power. Thus political and economic interests often influence the decision-making processes of an ESIA.

This is evident in Lesotho, where one of the key informants stated that "Due to the lack of employment the government is trying to alleviate poverty. Sometimes it (economic growth) does take more precedence over environmental issues. This often leads to ESIAs being implemented for the sake of fulfilling government legislation and not necessarily because the government is prioritising environmental protection" (LS05). In many instances "EIAs are an afterthought… It is perceived as fulfilling a requirement and not adding value to development projects" (LS02). As such ESIAs in Lesotho are not implemented to necessarily protect the environment and promote sustainable development but rather ESIAs are implemented to meet legislative requirements. This deeply affects the decision-making, and implementation process of ESIAs.

There are many instances where ESIAs have proven seriously deficient as a mechanism for attaining sustainable development (Ortolano & Shepherd, 1995). When this occurs, ESIA can undermine sustainable development, and the attainment of environmental protection and social equity. As such impact assessments are not a linchpin in the quest for sustainable development. The failure of ESIAs to ensure sustainable development has led to the emergence of three new ESIA models that draw on critical development theory.

3.3.2 Emerging models of ESIA

Current trends point to three emerging models of EIA (Vanclay et al, 2000: 8):

- Strategic Environmental Assessment (SEA);
- Environmental Sustainability Assessment (ESA); and
- Integrated policy and project appraisal for sustainable development.

SEA incorporates the environment into the higher levels of decision making and facilitates early consideration of alternatives well in advance of project level ESIA (Sadler and Verheem in Vanclay et al, 2000). SEA has therefore shifted ESIA from a formal process, to a much more flexible and adaptable approach based on procedural principles rather prescribed steps or phases (Retief, 2007). It focuses on the sources rather than the symptoms of environmental damage and thus addresses the challenges of sustainable development. To date, a limited number of countries have established formal provision for SEA. However, other countries are introducing this process informally or use SEA elements (Vanclay et al, 2000). For example, in South Africa SEA is voluntary and not implemented according to legally prescribed processes (Retief, 2007). Recently the use of Strategic

Environmental Assessment (SEA) has opened up a promising avenue for addressing the issue of late timing and for integrating environmental and social considerations into the early, upstream phases of decision making (Vanclay et al, 2000).

SEA is best described as a framework approach to relate development proposals to the baseline conditions of sustainable development. Sustainable development is represented by the regenerative and assimilative capacities of natural systems. On the basis of existing scientific knowledge, these threshold levels cannot be determined before project implementation. However, ESIA and SEA could be modified and adjusted to give an enhanced measure of sustainability assurance to approvals of development proposals via the application of precautionary principle (Vancaly et al, 2000). The precautionary principle states that 'prevention is better than cure' and as a result, environmental and social risks must be assessed in order to eliminate or diminish further damage (IAIA, 2003).

Integrated policy and project appraisal can be defined as a full cost analysis of the environmental, economic and equity effects of development options and proposals. This approach has also been called sustainability analysis or 3E-impact assessments, bringing together EIA, SIA, benefit-cost analysis and other forms of economic appraisal. Sustainability analysis or appraisal (SA) implies that all major development options would be subject to review against the triple bottom-lines of environmental capacity, economic feasibility and social equity. This requires an unambiguous conceptual definition of sustainable development that is operational and financially feasible (Vanclay et al, 2000).

These three emerging models of EIA potentially challenge the promotion of environmentally degrading and socially damaging projects that often prioritise exponential growth. One can therefore argue that these models are possibly informed by a sustainable development ideology that is based on the "home perspective" and not the dominant "contest perspective" that promotes a form of market-led development. However, if there is no political will to stop environmentally unsound projects, these new ESIA processes, models or applications will not prevent unsustainable development (Ortolano & Shepherd, 1995) projects that conform to Neoliberal market-led economics. This is because decisions about what constitutes unsustainable impacts, and how these impacts should be mitigated are political considerations, and therefore influenced by political interests, power and development discourse.

3.4 Policies and practices of international agencies

Today, ESIAs are guided by international best practice that is substantially influenced by the work of the World Bank Group (WBG), including the International Finance Corporation (IFC). These international policies and guidelines have become a benchmark for responsible ESIA practice. Among other achievements, they have raised the profile of social issues in ESIA and in the management of project associated impacts and benefits.

3.4.1 World Bank Group

International best practice is perhaps best summarised by the Equator Principles of the WBG. The Equator Principles (2006) provide a voluntary set of environmental and social guidelines for financial institutions to manage environmental and social risks. The signatories are predominantly private banks, which provide project finance to business in developing countries. The signatories

require borrowers to demonstrate that they have substantially met the Principles or that they will do so during project development and management. The principles are aligned with the WBG policies, safeguards, performance standards and guidelines (see Appendix 2).

3.4.2 International Finance Corporation

IFC Performance Standards (PS) on Social and Environmental Sustainability were adopted in 2006. The PS provide a framework to manage the social and environmental risks of private sector funding. Other financial institutions may also choose to apply the PS to their own projects. The PS establish guidelines that are to be met throughout the life of a project. The eight Performance Standards include (IFC, 2006):

- PS 1: Social and environmental assessment and management;
- PS 2: Labour and working conditions;
- PS 3: Pollution prevention and abatement;
- PS 4: Community health and safety;
- PS 5: Land acquisition and involuntary resettlement;
- PS 6: Conservation of biodiversity and sustainable natural resource management;
- PS 7: Indigenous peoples; and
- PS 8: Cultural heritage.

From a social perspective, PS 1, 2, 4, 5 and 8 have particular relevance (see Appendix 2).

In addition to the PS, the IFC has produced a series of good practice guidelines. Other significant IFC guideline documents include:

- Doing Better Business Through Effective Public Consultation and Disclosure: A Good Practice Manual, International Finance Corporation, 1998;
- Investing in People: Sustaining Communities through Improved Business Practice. A Community Development Resource Guide for Companies, International Finance Corporation, 2000;
- Paths out of Poverty: The Role of Private Enterprise in Developing Countries, International Finance Corporation, 2000; and
- Stakeholder Engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets, International Finance Corporation, 2007.

Despite these banks' policies, the banks and donor agencies have often fallen short of realising such high standards for planning and decision-making. When examining actual practice and compliance with standards, it becomes evident that bilateral and multilateral banks have either exercised their own discretion to adapt the policies to the realities of each country or have ignored cases of non-

compliance. In such cases, tolerance for non-compliance has breed cynicism about the effectiveness of these policies.

3.5 Public participation

Public participation forms an essential component of ESIA. It is a consultative process that takes place with key stakeholders in the project area. These people are defined as persons or groups who are directly or indirectly affected by a project, as well as those who may have interests in a project and/or have the ability to influence its outcome, either positively or negatively. Stakeholders may include locally affected communities or individuals and their formal and informal representatives, national or local government authorities, politicians, religious leaders, civil society organisations and groups with special interests, the academic community, or other businesses (IFC, 2007). A public consultation process therefore includes a variety of stakeholders with varying degrees of power.

During the public consultation process, stakeholders are provided with project information, which details the benefits and the disadvantages of the project. The objective of public participation should always be to enable people to make informed decisions about changes that will affect their lives. Public participation that follows international best practice should ensure that the engagement is:

- Open about potential adverse impacts and associated mitigation measures;
- Open about the positive impacts that may raise expectations;
- Use document to manage expectations;
- Use information that is readily understandable;
- Provide information that is meaningful to PAP;
- Take into account; local languages and dialects, clarity, cultural sensitivity, gender, age, ethnicity, literacy levels, local methods of disseminating information within and among community members;
- Use diagrams to explain information to illiterate people; and
- Notify affected communities and key stakeholders of regular correspondence; ongoing consultation, and the grievance mechanism.

By maximizing participation a number of benefits ensue to both the developers and those affected by the development. Firstly, effective participation informs and educates stakeholders about proposals and their potential consequences, secondly public participation enhances the legitimacy of the ESIA and the development project, thirdly it increases the accuracy of the ESIA, fourthly it strengthens the capacity of the ESIA to mitigate impacts (Carley, 1980) and, fifthly effective public involvement reduces the disproportionate influence of interests groups in the decision-making process (Cock & Webster, 1996). Participation in ESIA usually tends to minimises local resistance to projects thereby reducing disruptions, increasing project success, and preventing planning disasters and associated costs (Burdge et al, 1995). This potentially raises the level of public commitment to a project, provides a voice for communities, and establishes a sense of ownership.

Through public consultation, ESIA practitioners and developers access information about the area from those who live and work in the community or region. This local or indigenous knowledge can help in planning and managing the project (Roberts, 1995). Thus, ESIAs are increasingly being valued as a means to improve decision-making processes (Cock & Webser, 1996).

ESIA practitioners have adopted a variety of diverse and creative methods for involving the public and agencies in planning and identifying, predicting and evaluating impacts. Each project requires a set of methods tailored to the local situation, the time and the budget of the project (Carley & Derow, 1980, Robert, 1995). In all cultures there are indigenous mechanisms for participation that are reinforced by culturally defined sets of sanctions and expected patterns of conduct (Dermon et al, 1985). Although indigenous mechanisms for decision-making must influence the form of public involvement adopted by ESIA, public involvement strategies must be sensitive to social inequalities and conflict. Public involvement must ensure that marginalised voices within heterogeneous communities are heard.

Many organisations perceive communities as homogenous, stable and static populations when in fact communities are heterogeneous. They comprise complex forms of social differentiation that are diverse and constantly changing. If ESIAs are to develop participation strategies that give all stakeholders the opportunity to meaningfully participate, ESIA practitioners need to be aware of the dynamic and often unequal social relations operating within communities (Roberts, 1995). A common criticism levelled at participation strategies is that they are unable to involve the most vulnerable in society. Usually the methods adopted are elitist in that only a small, interested and powerful segment of the population is involved (Cock and Webster, 1996). This results in the differential treatment of community members, which in most instances, leads to the powerful members within a community gaining, while the poor and vulnerable bear the social, environmental and economic costs of the development. As such participatory strategies need to take into account questions of differential and preferential treatment by asking who benefits.

By asking this question, practitioners are forced to examine the distribution of environmental and social costs in terms of class, gender, age and ethnicity. This requires an understanding of the localised forms of power operating within a community. Accordingly, public involvement methods and approaches need to take into account the cultural traditions and socioeconomic circumstances of affected and interested parties (Vanclay et al, 2000). A community's perspectives of development, their processes of decision-making, and their forms of community participation may be very different from the goals and objectives of the developer. This can result in the ESIA ignoring the reality of local planning processes and definitions of development.

EIA practitioners need to constantly ask who makes the decisions and who implements them. This is essential not only for public participation processes but also for the development and implementation of localised, and culturally sensitive mitigation strategies. A critical requirement therefore of good ESIA practice is to match the tools for consultation and to ensure that these are relevant to the circumstances and the people who are affected (Vanclay et al, 2000). This is because public involvement should really mean real power sharing (Carley & Derow, 1980). As such an understanding of public participation cannot be separated from an understanding of local and institutionalised networks of power (Cock & Webster, 1996).

3.5.1 Power and public participation

ESIA is closely aligned to questions of power and dominance in four ways: firstly by its promotion of development, secondly by its association in economic production, thirdly by its involvement in allocating resources and deciding who gains and who loses, and fourthly by its promotion of the dominant values and norms in society. Even though the practice of ESIA is under professional control which is based on specialised knowledge, ESIAs can be used as an agent of capitalism/Neoliberalism and/or state bureaucracies given that developers usually pay for the ESIA. This financial control means that decisions concerning impacts, public involvement and mitigation strategies can be manipulated by economic and/or political power to ensure that a development projects take place.

3.5.2 Foucauldian analysis

The premise of the archaeological method is that systems of thought and knowledge ("epistemes" or "discursive formations") are often governed, by rules beyond those of grammar and logic, which operate beneath the consciousness of individual subjects (Foucault, 1970). Using an archaeological method of interpretation, it can be assumed that the decision-making processes of ESIAs are governed by tacit knowledge systems that are often unknown to the ESIA practitioner. This can result in the "unintentional consequences of development" as describe by Ferguson (1994).

The Mohale ESIA was undertaken by a team of foreign ESIA practitioners, mostly white South Africans, which included a few Sesotho specialists. For example, Mr. Tshabalala a sociologist who conducted the Mohale household survey (1993). In this instance it can therefore be assumed that the "development 'logic' which transcended the intentions of the developers" (Ferguson, 1994), was most likely informed by a western cultural framework that prioritised employment and monetary compensation. This unintentionally resulted in monetary compensation and employment creation being prioritised over agriculturally-based, subsistence livelihood practices. As such, during Phase 1B the cultural framework of the Basotho was overshadowed by western definitions of development. This is also clearly evident in the cross-cutting theme of health. Similarly, Phase 1B ignored the multiple health-seeking strategies of the Basotho.

In Tshabalala's household survey it was found that people living in the Project area consulted both 'professional' medical practitioners (i.e. hospitals and clinics), traditional healers and spiritual healers. A high proportion of households (49%) reported to consult with professional medical practitioners, while a lesser proportion (11%) consulted with traditional doctors and only 2% consulted with spiritual healers. Traditional doctors and spiritual healers were mostly consulted on "traditional illnesses", for example, ancestors, witchcraft and poison.

The health impacts identified in the Mohale ESIA included: (i) nutritional levels decreasing, (ii) increases in Sexually Transmitted Diseases, (iii) increases in occupational hazards; and (iv) increased dust and ambient noise. The Mohale ESIA did not identify the loss of traditional healthcare practices as a potential project impact. This impact was also not considered under the loss of cultural identity. Against this background, the Public Health Action Plan (1997) prioritised the following tasks:

- Providing initial mobile clinical services;

- Providing healthcare centres equipped to handle common illness in newly settled areas;
- Upgrading existing facilities to meet the increased demand for healthcare; and
- Providing counselling services in relation to illness and stress caused by relocation.

If the Mohale ESIA had taken Basotho cultural practices into account, the Public Health Action Plan might have provided traditional doctors and spiritual healers with compensation for the loss of income. In as much as the Environment and Heritage Action Plan improved access to traditional medicinal plants, the Public Health Action Plan should have made provisions for traditional healthcare practices. Compensation could have been as broad as providing training for traditional doctors in STDs and counselling techniques. By prioritising biophysical definitions of health, the ESIA unintentionally promoted western forms of healthcare that ignored the traditional Basotho way of life. This is one example of the 'technical' limitations of the Mohale ESIA, which unintentionally promoted western definitions of development.

3.6 Constraints to implementation

ESIA limitations and deficiencies are commonly grouped into five problem areas namely: attitudinal, structural, institutional, technical and procedural (Vanclay et al, 2000: 16). Attitudinal limitations derive from project proponents and development agencies resisting or circumventing ESIAs. This either results in ESIAs being implemented to legitimise development proposals or occurring too late in the decision-making process to have an affect on the project design. This has a direct bearing on structural problems which occur when the results of the ESIA are not sufficiently integrated into the decision-making processes of the development project. Essentially these limitations ensure that the interests of the developer are prioritised. Added to this experts and consultants are usually affected by attendant political and administrative pressures stemming from the institutional constraints of implementing ESIAs (Vanclay et al, 2000). This also calls into question the objectiveness of ESIA experts who are financially dependent on developers.

Institutional limitations are defined by a lack of innovation in law, procedure and method needed to support ESIA implementation. The provision and requirement for ESIA is usually prescribed by law or policy, amplified in regulations, directives, guidelines, procedures, administrative orders and other institutional arrangements. Experience indicates that an effective ESIA institutional framework is made up of the following enabling conditions (Vanclay et al, 2000: 4):

- A clear statement of purpose;
- Legal provision and requirements;
- Procedural controls and accountabilities;
- Understood scope of application to proposals with potentially significant impacts;
- Prescribed process of steps and activities;
- Opportunities for public consultation and access to information;

- Linkage to project approval and conditional setting; and
- Follow up and monitoring mechanisms.

These eight components can be taken to represent legal and institutional pre-requisites of sound ESIA. However, even if these institutional support mechanisms are in place, they do not guarantee good ESIA practice and effective performance, especially when there is a lack of capacity and expertise to implement ESIAs.

In developing countries where there is a shortage of qualified ESIA practitioners, people fake having the qualifications and expertise needed to conduct ESIAs. As a result, ESIAs are often done by consultants who do not have the relevant training or experience (Burdge et al, 1996). In Lesotho, the National Environmental Secretariat (NES) is currently "establishing EIA practitioner certificates to eliminate fraud and the poor quality of the EIS" (LS02). This will also hopefully address, "having to work with poor quality EIA reports, which create more work" (LS02).

Technically poor quality ESIAs fail to identify significant, cumulative and residual impacts of development projects, which leads to unsuitable mitigation measures. This is compounded by the limitation of ESIAs as a predictive tool able to identify and assess adverse and positive social, environmental and economic impacts. In addition the core social scientific disciplines that contribute to ESIA tend to be critical and discursive rather than predictive and explanatory. This affects the accurate identification of impacts, which reduces the credibility of the ESIA and subsequent mitigation strategies. The inaccurate identification of impacts is also affected by inefficient public participation processes that are impeded by a lack of institutional support, time and budgetary constraints. Vanclay et al (2000) argues that given these predictive constraints, inefficient public participation processes, short timeframes and limited budgets, ESIA practitioners should shift their emphasis from producing detailed impact analyses to implementing mitigation measures.

However, the identification of significant, cumulative and residual impacts is an essential component to developing suitable mitigation measures. Instead, ESIA practitioners should focus on recommending post-approval monitoring and follow-up programmes, which ensure mitigation measures are being implemented and sufficiently addressing identified and unanticipated impacts. The failure to undertake post-approval monitoring and follow-up has amounted to procedural weakness in EIA processes.

Procedural checks and balances improve the quality of ESIA especially when appropriate programmes of monitoring and auditing are able to cope with and correct unanticipated impacts. However, in many cases, procedural checks are implemented at a very basic level of environmental supervision where there is little or no guarantee that ESIA recommendations are being met. As such there is a broad consensus among ESIA professionals that insufficient attention is given to monitoring, audit and evaluation due to budgetary and time constraints.

This is the case in Lesotho, when "people do EIAs, they then submit a report and the National Environmental Secretariat (NES) reviews it. It is then either accepted or not and then you have to go back and make some changes. Then that is it. The monitoring and evaluation does not happen as much which to me is a floor because it is very easy, relatively easy to get your report to be passed but to actually make sure that those things that where recommended are followed through does not

really happen" (LS05). Without appropriate follow ups to check on ESIA practices and performances, ESIA processes lack both a feedback loop to quality control and to continuing improvement. This is one reason why progress has been slow in improving the limitations of ESIAs.

3.7 Post-environmental impact assessment audits

Remarkably few studies have been carried out to either test the accuracy of impact predictions or to monitor the long-term consequences of mitigation strategies (Glassen et al, 1994). Post-impact assessment audits have the potential to improve the ESIA process and are probably the weakest step of ESIA in most countries (Glassen et al, 1994). Many ESIAs are for a once-off project and there is little incentive to verify the quality of the ESIA predictions through an ESIA audit. A post-impact auditing process involves comparing the impacts predicted in the ESIA with those that actually occur after implementation. The audit can be of both impact predictions and of mitigation measures or conditions attached to the development (Ortolano et al, 1995).

The ability to predict environmental and social impacts with reasonable accuracy is central to effective ESIAs. ESIA audits can make important contributions to better planning for future ESIAs (Glassen et al, 1994, Harrop et al, 1999). It can contribute to an improvement in all aspects of the ESIA process, from understanding baseline conditions to the framing of effective mitigation measures. There is a need to introduce feed-back mechanisms within ESIA processes in order to learn from past experiences (Harrop et al, 1999). "If we learn from past experiences it reduces time and resource commitments to ESIAs, thereby enhancing ESIA credibility" (Glassen et al, 1994: 17).

A comprehensive example of an effective monitoring programme is Canada's La Grande Hydro-Quebec Project in the James Bay of the province, which monitored the environmental and social impacts of the project and evaluated the effectiveness of the mitigation and compensation measures (Vanclay et al, 2000).

Overall, post-impact audits should become an essential process in the ESIA. This requires a systematic programme of ESIA follow-up and post project analysis that effects monitoring and environmental auditing. During this process audits determine if mitigation measures and safeguards are satisfactory and working as intended. In addition, a mechanism for independent review is critical in guaranteeing sound ESIA practice. Examples include the Netherlands ESIA Commission and the Canadian system of independent panel reviews. Other countries operate more informal or internal processes of ESIA review, such as the multistakeholder committee approach of Brazilian states (Vanclay et al, 2000). Overall, ESIA performance should be measured against its contributions to environmentally and socially sound decision-making (Vanclay et al, 2000). However, relatively few audits and evaluations of this kind have been completed.

In 2000 the African Development Bank (ADB) commissioned a study to assess the quality and performance of their EIA process. The review was primarily a qualitative study that analysed a sample of 15 EIAs from a number of African countries[13]. The study evaluation criteria was based on

[13] Amongst these African countries included Algeria, Eritrea, Gabon, Lesotho, Morocco, Mauritania, Swaziland, Tanzania, Uganda and Zimbabwe.

assessing the standard components of the EIA process namely: the impact assessment, consideration of alternatives, public consultation, mitigation plans, monitoring plans, and management plans. Each EIA component was assessed as excellent, good, adequate or inadequate. The study concluded that the general quality of EIAs needs to be improved. The Review found that the utilisation of the assessment findings and recommendations in the final project documents varied greatly, from ignoring critical environmental aspects, to viewing them as a significant role in the project. It considered the Environmental Management Plan as the most important component of EIA (African Development Bank, 2000). The Review confirms the significance of not only environmental management but also the value of conducting post-EIA assessments.

Audits therefore have the potential to contribute to the development of an ESIA process that protects the environment and improves the daily lives of affected people. In doing so ESIA can increase its potential to advance a form of sustainable development that prioritises environmental justice and social equity. Ultimately, ESIA performance must be judged against the project outcomes. These outcomes can be measured at varying project intervals and not only after project completion. This requires a context-specific evaluation of the results of ESIA.

However, for the purpose of this research, post-EIA assessment should not only assess the quality of EIA procedures *per se* but also evaluate the *development effectiveness* of ESIA. This requires a post-EIA audit that is able to assess whether the ESIA contributed to formulating effective mitigation measures, which improved the daily lives of PAP. In sum, this means that post-ESIA evaluations of the effectiveness and efficacy of ESIA processes need to reflect the development potential of ESIAs. This is essential if ESIAs are to become an effective development tool able to promote social equity, environmental protection and sustainable economic growth. As a result, post-ESIA assessments are deeply embedded in matters of environmental justice, human rights and social equality. This is especially evident in ESIA-audits conducted for large dam projects.

3.8 Impact assessments and large dam projects

Historically, social and environmental impacts were left outside the scope of assessment frameworks for large dams. ESIA recorded for less than 40% of dams commissioned in the 1990s (see Figure 3-2). However, as experience accumulated and better information on the performance and consequences of dams became available, the full environmental and social costs of large dams began to emerge.

Debate and controversy around large dams initially focused on specific dams and their local impacts, but gradually these locally driven conflicts evolved into a global debate about the costs and benefits of large dams. By the late 1980s, environmentalists and sociologists began to play a more important role in the planning process, and by the mid-1990s the involvement of affected peoples and NGOs in the process became more significant (WCD, 2000). Their increased influence can be attributed to a number of factors, one being the rise of environmental and social concerns in dominant development theory (refer to chapter 2).

Even though dams were among the earliest development projects triggering ESIA application (Sadler et al, 2000), ESIAs have not proved a very useful or efficient tool in preventing detrimental social and environmental impacts.

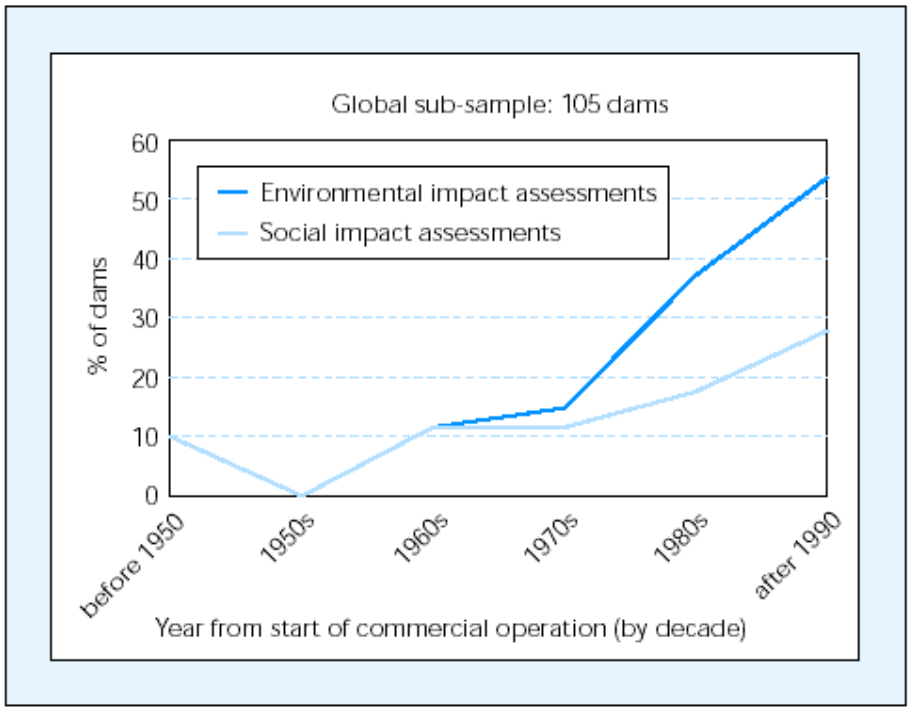


Figure 3-2: Trends in the implementation of environmental and social assessments

(Source: WCD, 2000: 187)

During the WCD (2000) it was concluded that ESIAs are mostly measures to identify impacts and associated mitigation measures of a planned dam development project. On the other hand ESIAs often have no significant influence on the choice of a dam as the preferred development option. Thus, ESIAs in the last two decades have been unable to genuinely influence the non-construction of large dam projects. This is mainly attributed to newly established environmental ministries being unable to ensure compliance with environmental legislation. In many cases project construction precedes ESIA completion and as a result, if the impacts are severe, it is often too late to change the project design, or to stop the project from being implemented.

Added to this, most dam proponents see ESIA as an administrative hurdle, or a requirement to secure funding. As such EIA operates under considerable constraints due to the political and administrative pressures imposed by project schedules. This can result in corruption in the form of favouring certain contractors during bidding, through to manipulation of water allocations and offsetting farmer repayments. In the Lesotho Highlands water Project, companies from France, Sweden, Germany, the United Kingdom and Canada were accused of paying bribes (LHWP in Sunday Independent, 11 June 2000). As such vested interests can distort the outcomes of the ESIA process thereby undermining sustainable development. This in turn leads to increasing public dissatisfaction as promises of satisfactory compensation, resettlement and livelihood restoration are not fulfilled. Instead, PAP face severe threats of increasing social injustice and environmental degradation.

3.8.1 The environmental and social impacts of large dams

The environmental and social impacts of large scale dams are distinctive but not unique in comparison to other types of development proposals (Vanclay et al, 2000). Biophysical effects of dams that are of particular concern include loss of land and habitat, alteration of hydrological regime and aquatic ecology, disruption of riverine fisheries and reservoir sedimentation with consequent backwater effects.

According to Adams et al (2000) the social impacts of dams vary with different project phases (see Table 3-1).

Table 3-1: The social impacts of different project components (Source: Adams et al, 2000)

Project component	Social impacts
Impacts during planning and construction	• Parties affected positively include contractors, consultants, bankers, workers employed on the project and subsidiary businesses providing products and services. • Negative impacts relate to fear and uncertainty created in the project area. • The most serious impacts are due to the trauma of resettlement. • Women and the vulnerable experience the impacts of resettlement more intensely. • Host communities can experience negative social, economic and cultural change.
Impacts at the dam site	• Dam construction demands a large amount of temporary unskilled labour and fewer skilled labourers. • A workforce creates a demand for a wide range of subsidiary products and services. • Unemployment can be a serious problem when dam construction is complete.
Impacts in the catchment	• Land use in the catchment above the dam may be restricted to reduce soil erosion and maintain water yield.
Building power lines, irrigation canals and access roads	• Employment opportunities are created by the construction of power lines, irrigation canals and access roads. • The migration of workers into the project area can cause economic competition, spread diseases and challenge local cultural norms and practices.
Impacts of managing the reservoir	• Positive impacts can occur through the creation of open-water fisheries. • Downstream positive impacts include flood control and floodplain development. • Dams change the natural patterns of river flows. This can impact negatively on downstream communities' fishing and agricultural practices.
Impacts of the supply of water	• Use of water for irrigation and urban water demands.

The most contentious social issues of large scale dams focus on the displacement of people and involuntary resettlement, particularly if this involves vulnerable ethnic minorities and indigenous peoples.

ESIAs conducted for large dams have been criticised for their lack of attention to the social impacts of dams. As mentioned, involuntary resettlement is the most extreme and contentious issue, locally and internationally, and it encompasses all the social impacts associated with the disruption to livelihoods and social networks. In addition, the health impacts of large dams have also been largely

ignored. This was evident in Phase 1A of the Lesotho Highlands Water Project where health impacts were given minimal attention, which resulted in increased rates of illness, STDs and HIV/AIDS infection (LHDA, 1997).

The impact assessment processes of large dams are crucial to understanding how and to what extent a project may impact on the environment and society. However, assessments cannot ignore what is "at the heart of the debate on large-dams… issues of equity, governance, justice and power (WCD, 2000: 2)". As such impact assessments are deeply embedded in matters of environmental justice, human rights and social equality. ESIAs therefore need to embrace their role in promoting a form of sustainable development that ensures social equity, environmental justice and economic growth. This requires the advancement of mitigation measures that led to social development and environmental protection (see Table 3-2). In addition, ESIAs must overcome the institutional, procedural and technical limitations impeding their effective implementation. This requires environmental management plans that ensure post-EIA audits that can access mitigation measures and ensure remedial action to increase the likely success of proposed mitigation measures.

Table 3-2: Examples of the type of mitigation measures that can be applied to identified impacts (Source: Brookes, 1999)

Issue	Potential impacts	Mitigation
Noise and/or light disturbance from construction and traffic	• Stress • Safety concerns	• Daytime working • Careful selection of piling techniques • Screening • rerouting traffic
Employment opportunities from construction and support industries	• Local job creation • Immigration • Temporary boost to local economy which may create an unsustainable economy	• Providing skills training to local people
Unemployment after construction period	• Social problems • Demoralisation • Vandalism • Economic stagnation • Emigration	• Local or central government employment initiatives
Immigration	• Pressure on existing short or long-term accommodation • Pressure on schools and health facilities	• Providing temporary accommodation • Encouraging the use of local labour • Providing skills training • Contributing to the development of new services

The omission of post-EIA monitoring in ESIA process has led to the acceptance of unrealistic proposals that do not draw on previous ESIA experience. One of the main constraints to post-EIA audits is the lack of political will. This is because ESIA processes and procedures are directly affected by the political context within which they are implemented. If ESIAs are to become effective development tools, they need to be supported by a political context that considers the impacts of development, the goals of development and the desired processes of development. For this to happen ESIAs need to be supported by a political culture that operates within a sustainable development framework that prioritises social equity and environmental justice. Ultimately, the effective deployment of ESIA in support of sustainable development can only be achieved as part of a larger institutional reform to decision-making (Vanclay et al, 2000).

3.9 Impact Assessments and large dam projects in Africa

While ESIAs do not have a long history in Africa, large dam developments do. This is mainly attributed to many dams being built prior to the development and prioritisation of ESIAs in Africa[14]. It was only in 1992 with the Rio UN Earth Summit that real progress towards the promotion and implementation of ESIAs in large dam developments occurred in Africa.

In Africa, most government ministries have a department dedicated to environmental concerns. This has led to a relatively well-developed legislative and policy framework for ESIAs in Africa. As such ESIAs are slowly being adopted as a planning tool in many sectors. There are, however, many challenges that prevent ESIAs being implemented as a key tool in the promotion of sustainable development in large dam projects in Africa (Tarr, 2002).

ESIAs in Africa are often implemented in highly variable ways. Most laws are sectoral and there are often no effective structures in place to administer the implementation of these ESIAs. This is compounded by the widespread perception that ESIAs obstruct development (Tarr, 2002). As such ESIAs are perceived as a tool for promoting a form of 'green colonialism,' whereby the 'Third World' is prevented from attaining economic development and industrialisation. In South Africa, national and provincial politicians were attacked for perceiving ESIAs as delaying economic development. In 2006 the then Minister of Housing, Lindiwe Sisulu, was heavily criticised by environmentalists when she stated that the construction industry would "no longer be held hostage by butterfly eggs" (Macleod, 2006). ESIAs in Africa tend to be considered amongst government officials as being synonymous with underdevelopment and poverty rather than sustainable development. Moreover, ESIAs are often undermined by aspects of poor governance such as insufficient opportunities for public participation, limited access to information, inadequate freedom of speech and, in some cases, corruption as was discussed earlier in Section 3.6.

Most ESIA units have neither the skilled staff nor the resources to fulfil their mandate. This is further discussed in chapter 6, which describes the challenges facing ESIA implementation in Lesotho. Added to this, ESIAs are usually located in environment or nature conservation ministries, which generally have low political status, and are often ignored by more powerful sectors such as agriculture, mining, water, trade and infrastructure (Tarr, 2002). This often results in conflicts of interest that dilute the necessity of prioritising the environment. Added to this, many environmental ministries include other sectors such as tourism, agriculture, fisheries, water, mining and even culture. This is evident in Lesotho where the environmental ministry is housed in the Ministry of Tourism, Environment and Culture.

Although ESIAs in Africa face numerous institutional and ideological challenges, there are examples of successful ESIA implementation. One such example is the ESIA undertaken during the construction of Maguga Dam in Swaziland between 1998 and 2002 (SA/01). Like the LHWP, the Maguga Dam Project was a bi-national water development project between the Republic of South Africa and the Kingdom of Swaziland.

14 Amongst these dams are some of the largest dams in the world. These include the Aswan Dam, Lake Kariba and Lake Cahora Bassa.

The Maguga Dam was intended to support commercial forestry and sugar plantations in South Africa and approximately 1000 small farmers in Swaziland. According to the Komati Basin Water Authority (KOBWA) the ultimate aim of the Maguga Dam Project was to reduce poverty and unemployment through commercial agricultural development that targeted rural areas (KOBWA, 2008). In order to achieve this aim, project authorities worked hard to incorporate the lessons learned from the WCD in the early stages of planning, through to the implementation, commissioning and decommissioning (KOBWA, 2008). According to the Bankwatch Network (Pottinger, 2007), Swaziland and South Africa were determined not to repeat the mistakes of dam projects they had been involved in previously, including the LHWP.

One key ingredient to the success of the project was ensuring that affected communities were direct beneficiaries of the project (Pottinger, 2007). In the Maguga Dam Project PAP received water and energy assistance to establish farm cooperatives, health and sports facilities. On completion of the dam, workers' homes were sold to the local population to help alleviate a housing shortage in the area. An independent dispute resolution process was established to assist KOBWA with addressing PAP complaints. Added to this, the Maguga communities were able to build their own homes and they were encouraged and assisted to use part of their compensation to develop businesses. These initiatives were supported by an effective consultation process, which meant that "Maguga communities' opinions and concerns were incorporated into the project design and implementation" (SA/02). As such ESIA practitioners undertook to understand the local context and ensured that this context informed the mitigation measures (SA/02).

The success of the Maguga Dam can partly be attributed to the application of the WCD recommendations, which ensured that project impacts were identified and mitigated. WCD recommendations will be discussed in further detail in chapter 4. Added to this, the ESIA was implemented using a development framework that promoted PAP as direct beneficiaries of the project. This was made possible by the political will and determination not to repeat the same mistakes of other large dam projects in Africa.

Even though large dams in Africa can no longer be constructed without an ESIA, the political will required to implement effective ESIAs will need to be nurtured, if ESIAs are to reach their full potential as an effective tool for the promotion of sustainable development.

3.10 Conclusion

An ESIA is a process that identifies, predicts and evaluates the potential consequences of proposed development projects. This is in order to improve project decisions and mitigate adverse environmental and social impacts. Although ESIA may be an important step towards mitigating the negative environmental and social impacts of development, ESIA is not a technocratic tool free from subjectivities. Instead, it is embedded in a broader political context that is shaped by dominant development ideologies and values. As such, decision-making processes in ESIA are embroiled in the dynamics of power. Power relations are therefore central to an understanding of ESIA. This is because ESIA is essentially a decision-making tool that plays a crucial role in the allocation of resources, the development of public participatory processes and mitigation strategies. During this process the outcomes of an ESIA determine who benefits and who loses.

ESIAs are therefore deeply embedded in matters of environmental justice, human rights and social equality. Currently ESIA processes are informed by dominant definitions of development. This often leads to ESIAs promoting mitigation measures, which are removed from local contexts. If ESIAs are to fulfil the goals of sustainable development, ESIA will need to be informed by a development framework that ensures PAP are direct beneficiaries of the project. This framework is promoted by the WCD, which advocates the development criteria of equity, efficiency, participatory decision-making, sustainability, and accountability in large dam developments. Such a framework requires ESIA practitioners engaging with bottom-up development approaches that are informed by local contexts. This will be further discussed in chapter 4, which specifically addresses a *rights-and-risks* based approach to development.

4 The rights-and-risks based approach to large dam developments

4.1 Introduction

Since 1950, 40 000 large dams have been built in over 140 countries worldwide at a total investment estimated of more than USD2 trillion (WCD, 2000). During this period between 40 and 80 million people have been displaced, and 60 percent of the world's rivers have been affected (WCD, 2000). In India and China alone in excess of 3000 large dams have been built for power generation, water supply, flood control and irrigation (Sadler, 2000). While many have benefited from the services provided by large dams, their construction and operation has led to many significant environmental and social impacts. These social and environmental impacts have historically been among the least addressed concerns in dam-related decision-making. Since the late 1980s this has somewhat changed. Today the economic benefits of constructing large dams can no longer be justified without an assessment of the social and environmental impacts.

After World War II, large dams were promoted by narrow definitions of development that prioritised economic growth. During this period of intense industrialisation, governments in both the 'First' and the 'Third' Worlds were able to build dams without paying much attention to their environmental and social impacts. The development of large dam therefore served to benefit the powerful, the urbanised, and the rich. It was only in the late-1970s, and the early-1980s, when people started to question the detrimental impacts of unabated economic growth that people began to question the negative social and environmental impacts of large dams.

Today developers, government and financing agencies are aware of the positive and negative impacts of large dam development. To deal with these impacts professional associations[15] and financing agencies have adopted policies, criteria and guidelines to improve the social, environmental and institutional governance of large dams (WCD, 2000). These broad policies and guidelines focus on mitigating the detrimental social and environmental impacts of large development projects (refer to chapter 3 section 3.4). Added to this, these policies and guidelines explicitly promote and encourage ESIAs as the tool to identify and mitigate adverse impacts. This has however not ensured environmental and social protection.

In many instances ESIAs fail to attain the goal of sustainable development. Often they promote mitigation measures that are not context specific and geared towards addressing the actual developmental needs of the people and the environments which they are trying to protect. The practical or "structural" reasons for this were mainly addressed in chapter 3.

This chapter attempts to address the "ideological" limitations to implementing ESIAs. This will be achieved by firstly understanding the history of decision-making in large dams and its relationship to development theory, and secondly assessing the current discourse attempting to inform decision-

[15] Such as International Commission on Large Dams (ICOLD), the International Hydropower Association (IHA) and the International Commission on Irrigation and Drainage (ICID).

making in large dam developments. This requires a detailed description of the WCD, which in 2000 set out to introduce a new framework for decision-making in large dam projects. It will be concluded that if ESIAs are to implement the policies, standards and guidelines developed by the WB and the IFC, ESIAs will need to prioritise social equity and environmental justice. As such ESIAs need to be grounded in a value system that protects environmental and human rights. This requires an ESIA process that is guided by a WCD analytical approach to development.

4.2 Development theory and large dam projects

While dams have significantly contributed to economic growth in the 20th century, they have also threatened the well-being of millions of people. For some, large dams have meant the loss of livelihoods, natural resources, cultural heritage and social networks, while for others large dams have provided substantial socio-economic benefits. Those who receive the benefits from large dams are often urban dwellers, commercial farmers and industries, while those who are adversely affected often include directly displaced households, host communities, and riverine communities living both upstream and downstream of the dams (NGO Working Group on Export Development Canada, 2003). These people are often quite poor, marginalised and vulnerable such as indigenous peoples and women (de Wet, 2000). As such, there is a clear class distinction between those who benefit and those who are adversely affected by large dam projects. This has led to many critiques scrutinising the expected benefits of large dams (NGO Working Group on Export Development Canada, 2003).

In the past, government agencies, engineers and economists were primarily involved in the decision-making processes of dam construction (WCD, 2000). Between the 1950s and 1970s cost-benefit analysis (CBA) emerged as the dominant economic tool supporting decision-making on dam projects (WCD, 2000). This approach was economistic in its emphasis and did not consider the social or the environmental impacts of large dams. Instead, if the expected economic benefits of a dam exceeded the social and environmental costs of the dam, the construction went ahead (WCD, 2000).

Today with the emergence of social equity, human rights and environmental justice as critical ingredients of sustainable development, this ‘balance sheet’ approach to dam construction is no longer acceptable (WCD, 2000). Social and environmental impacts of dams need to be identified and classified as either gains or losses. In addition, large dams need to answer who benefits from the development so as to ensure that the disparities, between those who gain, from those who lose, are minimised.

The increasing concern with social and environmental equality, suggests that developments within large dam projects has followed a similar trajectory to development discourse (WCD, 2000). As such it can be assumed that large dam development is deeply connected to dominant definitions of development. This being said, dam developments are currently being guided by sustainable development discourse that seeks to ensure economic growth, social equity and environmental protection. This often implies that large dam developments can potentially fulfil the objectives of sustainable development. It also assumes that dam developments can potentially contribute to intergenerational and intergenerational equity.

Indeed, this raises a number of significant ethical concerns that include the moral acceptability or fairness of positive and negative impacts of large dams (WCD, 2000). A strong equity position dictates that those who bear the social and environmental impacts of the development should receive

a proportionate amount of the benefits. However, the WCD argues that "equity often speaks more to the costs of dams rather than to their benefits (126: 2000)." As such, attention should be directed to those who are most at risk to lose from the development rather then purely focusing on those who are impacted by the development. This includes the vulnerable, the isolated, and the less powerful populations for whom development often means loss. If a large dam renders these people worse off, it is then deemed inequitable (WCD, 2000).

This is an attempt by the WCD to ensure that large dams are guided by a rights-and-risks based approach to sustainable development. As a result WCD (2000) argues that dams can no longer ignore the rights PAP or the risks of infringing their rights. Instead dams need to understand how, and to what extent, they may impact on people's rights (WCD, 2000).

4.2.1 World Commission on Large Dams

The WCD was announced in February 1998. It began its work the following May, under the Chairmanship of Professor Kader Asmal, the then South African Minister of Water Affairs and Forestry. Its 12 members were chosen through a global search process to reflect regional diversity, expertise, and stakeholder perspectives. The Commission was independent, with each member serving in an individual capacity and none representing an institution or a country. As defined by the Gland workshop, the Commission's two objectives were to:

- Review the development effectiveness of large dams and assess alternatives for water resources and energy development; and
- Develop internationally acceptable criteria, guidelines and standards where appropriate, for the planning, design, appraisal, construction, operation, monitoring and decommissioning of dams.

To address these objectives the Commission (2000) began by developing an analytical framework that was grounded in accepted international norms of sustainable and equitable human development. This was achieved by developing a clear understanding of the shared values, objectives and goals for large dam developments. The need to develop socially equitable standards initiated a debate that moved beyond large dams to questions about the very meaning, purpose and pathway to human development (WCD, 2000). It was argued by the Commission (WCD, 2000) that to improve the development process, development outcomes should achieve the following:

- Equity;
- Efficiency;
- Participatory decision-making;
- Sustainability; and
- Accountability.

The WCD (2000) argues that these core values[16] and outcomes should form the underlying goals for development and therefore, for large dam development. If these goals are achieved the Commission (2000) believes that large dams will deliver favourable benefits to all. However to achieve these outcomes, the WCD (2000) advocates a *rights-and-risks* based approach to assessing large dam impacts.

Using a rights-and-risks based approach, the Commission set out to explore the unresolved challenges with implementing large dams and to compare the planned performance of large dams against the actual outcomes of these dams. This draws on a similar theoretical approach as adopted by Ferguson (1997).

To ensure a solid foundation on which to base its analysis, the WCD (2000) undertook:

- In-depth Case Studies of eight large dams on four continents, together with two country review studies;
- A Cross-Check Survey of large dams located in 52 countries across the globe;
- 17 Thematic Reviews grouped along five dimensions of the debate;
- Four regional consultations; and
- Over 900 submissions from interested individuals, groups and institutions.

The case studies were assessed using a standard framework. At the core of the framework were six questions (WCD, 2000):

- What were the projected versus actual benefits, costs and impacts?
- What were the unexpected benefits, costs and impacts?
- What was the distribution of costs and benefits – who gained and who lost?
- How were decisions made?
- Did the project comply with the criteria and guidelines of the day?
- How would this project be viewed in today's context in terms of lessons learned?

[16] These five core values are also aligned with international human rights norms first articulated in the United Nations Declaration of Human Rights. These internationally agreed human rights principles have been subsequently translated through related covenants and statements, including the Rio Declaration Principles agreed to at the United Nations Conference on Environment and Development in 1992.

These questions helped the Commission to evaluate the development effectiveness of large dam projects. They were answered by a well represented group of participants that included members of the NGO community, the Indigenous Peoples Movement, affected communities, engineers, scientists, economists and sociologists to name but a few. NGOs and affected community presented at two hearings organised by NGOs from Europe and from Southern Africa. These hearings were attended by two representatives from the Alexander Privatisation Forum who spoke about the LHWP. In addition participants attended and participated in meetings, workshops and conferences organised by a wide range of organisations and networks. As such the analytical framework was designed to offer the opportunity for dialogue among different interest groups, while providing a solid foundation for the Commission's findings (WCD, 2000).

After two and a half years of in-depth research, reviews, public hearings, a survey of 150 large dams, case studies, workshops, and thematic papers, the WCD released its final report in November 2000, *Dams and Development: A New Framework for Decision-Making*. It can therefore be assumed that the findings from the WCD Report are widely representative and rest on a reliable theoretical and analytical framework. These findings are informed by a development framework that seeks to establish links between economic, social and environmental injustice.

4.3 A rights-and-risks based approach

The rights-and-risks based approach (WCD, 2000) assumes that all people are accorded human rights without discrimination. This means that the rights of some cannot be denied to ensure the rights of others. Thus any policy, law or development project must have the intention to respect the rights and entitlements of all (WCD, 2000). The rights-and-risks based approach to development essentially presents an equitable development framework where everyone benefits, equally. It is an approach that requires that decisions do not, at the outset, sacrifice the rights of any citizen or group of affected people.

As might be expected, this approach is founded on a human rights discourse that is based on the United Nations Charter of 1945, the Universal Declaration of Human Rights of 1947, the United Nations Declaration on the Right to Development (1986) and the Rio Declaration on Environment and Development (1992). Together these Declarations form an internationally acceptable framework of norms and values that today underlies the concept of sustainable development. Under this approach, definitions of development shift from prioritising economic growth to prioritising equitable economic growth, social justice and environmental protection (WCD, 2000). As such, the approach places greater emphasis on the rights and interests of those affected by a development project, then on the economic merits of the project. The approach therefore challenges definitions of development that once dominated large dam development.

Adopting a rights-and-risks approach means moving beyond the narrow definition of the risk of the developer or investor, to include the far larger group of stakeholders that often have risks imposed on them involuntarily and managed by others (EMG, 2004). This also includes future generations who cannot speak for themselves (EMG, 2004). As such the right to development of all is accompanied by an acknowledgement of the associated obligations to current and future generations.

The rights-and-risks based approach to large dams assumes that the decision-making processes of a project can be aligned to the emerging global trends of equitable and sustainable development. In other words, dams can potentially promote the right to development. This assumes that development decision-making processes can ensure all people contribute to and benefit from economic, social, cultural, political and environmental developments. As such a rights-and-risks based approach to large dam developments presupposes that dams can promote the fair distribution of project benefits.

During the World Summit of Sustainable Development, the Heinrich Böll Foundation released a seminal document entitled "The Johannesburg Memo; Fairness in a Fragile World" (Sachs et al, 2002). The document raises a similar question to that which informs the deliberations of the WCD; "development yes, but what kind of development?" (Sachs et al, 2002). Like the WCD, the memorandum promotes a framework for sustainable development that is grounded in civic, social, and environmental rights.

At the moment the global environment is unequally divided with 20 percent of the world's population consuming 80 percent of the world's resources; 45 percent of all the world's fish and meat, 68 percent of all the electricity, 84 percent of all paper and 87 percent of all automobiles (Sachs et al, 2002). The Memorandum argues that it is due to this skewed distribution of resources that such high levels of social inequality and environmental degradation exist. It clearly articulates that if this reality is to continue the majority of the world's population will remain deprived of their rights to life and development. As such, development is no longer a matter of ecology but also a matter of equality (Sachs et al, 2002).

To correct the unequal distribution of resources requires an environmental strategy that prioritises the equal redistribution of rights and resources (Sachs et al, 2002). This also requires the redistribution of power, which is currently concentrated in the most developed countries of the North and amongst governments and businesses of the South. In order to achieve this would require a system that reflects the true nature of environmental and social costs (Sachs et al, 2002). This would ensure that economic decisions were made with minimal environmental impacts. In addition free trade and economic production must be subservient to human rights and environmental sustainability (Sachs et al, 2002).

The Memorandum (2002) therefore advocates a different economic model then the current economic model dominating world markets. "The surge of economic expansion driven by globalisation and Neoliberalism will have to end" (Sachs et al, 2002: 19). No longer can economies exploit their natural resources to accelerate economic growth. If the right to development is to be attained, economic growth will need to be abated in order to allow for the equal distribution and use of natural resources (Sachs et al, 2002). As such the memorandum emphasizes that poverty alleviation cannot be separated from wealth alleviation (Sachs et al, 2002). This is because poverty needs to be understood in relation to wealth. "No longer can the role of the rich be ignored, while the poor are targeted to change their "unsustainable" lives" (Sachs et al, 2002). This form of sustainable development is not only for the protection of the environment but it is also for the protection of human rights, social equity and the right to development.

This approach to development is a radical departure from the conventional understandings of sustainable development. According to Sachs (1987) the attainment of market-led capitalism

alongside social equality and environmental sustainability is impossible. In a world of finite resources human consumption actually needs to be curbed to ensure environmental sustainability and social equity (Schalatek & Unmussig, 2003). If all countries strive to attain economic growth, social equity and environmental sustainability, without changing current consumption patterns, five to six planets will be required to sustain the status quo (Redcliff, 1987). As such the rest of the world cannot follow the developmental path of the 'developed nations'. If this is to occur natural resources will be depleted. This form of sustainable development therefore calls for a reduction in natural resource consumption. In order for this to occur the First world must reduce its ecological footprint, while the Third World must ensure the rights of the marginalised poor and impoverished (Sachs et al, 2002).

Third world countries have an opportunity to turn their state of "underdevelopment" into a form of "eco-development" that is able to attain the right balance between economic production, social equity and environmental protection (Sachs et al, 2002). For this to occur, not only will underdeveloped nations have to use the latest green technologies, but also de-link their economic growth and consumption patterns from the "developed" nations of the world (Sachs et al, 2002). This requires a shift in power and the redistribution of resource consumption by the First World. Such a process would reduce the ecological footprint of the First World thereby ensuring greater levels of social equality and the attainment of the fundamental human right to development. As such, prioritising the alleviation of poverty, inequality and environmental degradation requires the alleviation of wealth (Sachs et al, 2002). The answer therefore is "to move out of an industrial and wasteful economy… to a regenerative economy mindful of resources, the environment and people (Sachs et al, 2002: 24).

A rights-and-risks based approach to development does however not advance wealth alleviation. It advances a framework that assumes the compatibility of economic growth and social and environmental justice. If one adopts the approach advanced by the Memorandum (2002), it can be argued that a rights-and-risks based approach to development will not succeed in redistributing power and ensuring that all affected parties benefit equally. As such, a right-and-risks based approach to development does not challenge Neoliberalism nor does this model curb First-World consumption. In effect, it further entrenches the *status quo* by ensuring increased benefits flows to often marginalised groups. In a world of finite resources it is questionable whether a rights-and-risks based approach to development will actually protect the right of development for all.

Thus, a rights-and-risks based approach to development should also be informed by an ecological framework that is not anthropocentric but also serves to acknowledge the finite resources of the Earth. This requires the development effectiveness of a large dam being measured against human rights and the ecological limits to development. If a rights-and-risks based approach is to ensure that people benefit equally from development, it will have to advance an economic model that alleviates wealth and natural resource consumption in the First World while decreasing poverty in the Third World. Poverty is the lack of power and not of money and resource consumption. To reinforce the rights of the poor calls for a development model that eliminates poverty through wealth alleviation. This development model would therefore challenge the existence and development of large dams, which would eliminate the human rights abuses caused by involuntary displacement.

4.4 Involuntary displacement and large dams

Involuntary displacement or forced relocation of people is one of the most significant impacts of large dam projects (WCD, 2000). It results in severe social, economic, and environmental stress that translates into physiological, psychological, socio-cultural, economic, and ecological damage (Bartolome et al, 2000). Resettlement is therefore a multidimensional phenomenon of which physical relocation is only one of the more significant outcomes (Cernea, 1999).

Cernea (1997) identifies several outcomes attached to resettlement these include landlessness, joblessness, homelessness, marginalisation, increased morbidity and mortality, food insecurity, loss of access to common property and services, as well as social disarticulation. The central risk of displacement is however the impoverishment of displaced people (Cernea, 1997). To counter this central risk, Cernea (1996) argues that resettlement programmes need to protect and reconstruct displaced peoples' livelihoods. He states that simply restoring material assets will leave people worse off than before. The main objective of a resettlement programme must therefore be to improve the standard of living and the quality of life of those affected by the project (Scudder, T. 1997). As such resettlement should be linked to questions of rehabilitation, empowerment and development (Bartolome et al, 2000).

With the acknowledgement that displacement disrupts, or even destroys, livelihoods, social networks, natural resource use, and an entire complex of rights, both individual and communal, it is increasingly accepted that displaced cannot be restored through the mere provision of monetary compensation, alternative land or housing (Bartolome et al, 2000). Instead, resettlement objectives should aim to improve the living standards and the quality of life of those affected by the project.

Accordingly, the best way to prevent landlessness and joblessness is to re-establish people on cultivated land or in income generating employment or self-employment. Resettlement programmes often involve various combinations of livelihood strategies, which include land recovery, as well as promoting diversified on-farm/off-farm activities to create employment opportunities (Cernea, 1996: 27). In the case of Mohale Dam, resettlement overemphasized monetary compensation and physical displacement while underemphasizing the restoration of multiple livelihood strategies. Although LHDA developed a Rural Development Action Plan (RDAP) it never materialised. Instead, the LHDA assumed that PAP would use their monetary compensation as an input to recreating their multiple livelihood strategies. This did not transpire. As a result, a majority of the Mohale PAP are now dependent on monetary compensation to secure their livelihoods. This finding will be further discussed in chapter 7 of the research report.

The least addressed risks to involuntary resettlement are those that pose intangible risks not easily measured or quantified. These include social disarticulation and marginalisation, which affect informal networks and social capital that provide vital coping mechanisms for vulnerable households. Social networks help with alleviating poverty by providing reciprocal credit, informal loans, exchanges of food, clothing, child-care and durable goods (Cernea, 1997). The dismantling of such multifunctional, yet often "invisible" social networks can result in destroying social capital, which is difficult, and takes time to reconstruct (Bartolome et al, 2000). Impoverishment from resettlement is therefore further aggravated by the loss of reciprocity networks, which increase powerlessness, dependency and vulnerability.

This loss is bigger in projects that disperse communities, severing their prior ties with neighbours,

rather then relocating them in groups and social units (Cernea, 1996: 27). During the Mohale resettlement process, households were given the choice to relocate in groups or in household units. A majority of the resettlees chose to relocate in household units, which destroyed social networks and familial ties. Added to this, households were resettled to host communities in different geographical locations that were dissimilar to the Highlands. This presented resettlees with two confronting challenges; the first reintegration within host population and the second, adaptation to a different environment. In the case of Mohale Dam little energy was directed towards facilitating reintegration with host populations. This will be further discussed in chapter 7 of the research report.

A host of international guidelines serve to guide resettlement planning. These include the IFC's Performance Standards, the Asian Development Bank Resettlement Guidelines, the African Development Bank Social and Resettlement Policy, as well as the Equator Principles (refer to chapter 3). International best practice is perhaps best summarised from the Objectives of IFC Standard 5 and the goals of the World Bank's OP 4.12. The IFC Standard objectives are:

- To avoid or at least minimise involuntary resettlement wherever feasible by exploring alternative project designs;

- To mitigate adverse social and economic impacts from land acquisition or restrictions on affected persons' use of land by:

(i) providing compensation for loss of assets at replacement cost; and

(ii) ensuring that resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of those affected;

- To improve or at least restore the livelihoods and standards of living of displaced persons; and

- To improve living conditions among displaced persons through provision of adequate housing with security of tenure at resettlement sites.

Similarly the goals of the WB OP 4.12 are:

- To avoid or minimise adverse impacts and to conceive and execute resettlement activities as sustainable development programmes;

- To give displaced persons opportunities to participate in the design and implementation of resettlement programmes; and

- To assist displaced persons in their efforts to improve their livelihoods and standards of living, or at least to restore these to pre-project levels.

WBG protocols such as these prescribe that resettlement be planned as an integrated development process that fully compensates people, restores their income/livelihoods and ensures that they are direct beneficiaries of the project. In order for resettlement to attain these goals, involuntary resettlement must be viewed as an opportunity for sustainable development. For this to occur, livelihood restoration should be prioritised over physical relocation and the allocation of resources.

4.5 Compensation and livelihood issues

Compensation is largely understood as the specific measures intended to reduce the losses suffered by people displaced and/or negatively affected by development activities. It usually takes the form of a once-off payment, either in cash or kind, and is principally awarded to negatively affected persons (Bartolome et al, 2000). The general practice is to pay compensation for lost fixed assets like agricultural land at the prevailing market rate, calculated at an average of the current registered sales price for a similar piece of land. It is the value in exchange rather than value of replacement that is the basis of compensation (Bartolome et al, 2000).

Sadly, compensation rates rarely reflect the true replacement value of lost assets, especially for resettlers who must replace lost land (Cernea, 1997). In the Karnataka multipurpose dam project in India, local courts raised the compensation rates up to five times the value assessed by project officers, but this was only for farmers who could afford to bring a case before the courts. Added to this, delays in the payment of compensation are common (Cernea, 1997). If compensation payment is delayed, interest on the compensation amount must be paid to account for inflation (Bartolome et al, 2000). A study in Nepal found, on average, a 10 year delay between property expropriation and compensation payment. In Ghana's Kpong dam project, government shortfalls meant that 7 000 affected people and their host communities were never paid. In such instances, the contraction or non-replacement of income generating activities significantly reduces the ability of resettlers to re-establish their incomes. This is evident with the construction of Mohale Dam, where interviewed respondents stated that the late arrival of their compensation affected their ability to secure their livelihoods. Often respondents complained that the monetary compensation was too little and arrived too late. "I have to borrow money in order to survive. When I receive my money I have to pay people and then I have nothing" (LS15). This common response also alludes to the dependence of the respondents on cash compensation to secure their livelihoods, which is detrimental in circumstances where cash compensation is quickly depleted.

Cash compensation is often quickly depleted by fraudsters, repayment of debt, theft, liquor and conspicuous consumption (Bartolome et al, 2000). As such cash compensation has proved ineffective in recreating lost assets and opportunities, especially in less monetised economies (Bartolome et al, 2000). Projects that only provide cash compensation do not usually restore incomes or livelihoods (POE, 2002). Without additional livelihood restoration programmes, cash compensation invariably results in PAP becoming dependent on project finance. This has the added effect of making people more dependent on the State, thereby increasing human vulnerabilities and further disenfranchises PAP. As such successful income restoration is achieved primarily when projects enable PAP to share in the immediate benefits created by the project (Cernea, 1997 & Bartolome et al, 2000).

Joint benefit sharing initiatives where not considered during Phase 1B of the LHWP. This occurs when PAP are regarded as the direct beneficiaries of the project (Bartolome et al, 2000). "People adversely affected by a dam project should be the first to benefit from the project (Bartolome et al, 2000)." This initiative ensures that appropriate mechanisms are introduced to equitably distribute the development opportunities generated by the project. These benefits could be related to project finance, reservoir construction, operation, downstream release and revenue sharing. Examples of these opportunities include preferential fishing rights on reservoirs, land in the irrigation command

area, rights to draw down lands, equity shares, rural electrification from power generated, ownership of tourist facilities, custodian-ship over wildlife and other natural resources. These benefits could either be the in the form of community assets or services or they could be individual and household focused.

Adversely affected people should participate in the identification, selection**,** distribution and delivery of benefits. As a general principle, the level of benefits should be sufficient to induce demonstrable improvements in the standard of living of the affected people. All categories of affected people should be considered eligible, these include; the displaced and those located upstream, surrounding the area of the reservoir, downstream of the dam and host communities for resettlement. These affected groups could benefit in varying degrees, or they could benefit equally, depending on the extent of the risk the dam poses to PAP livelihoods. Joint benefit sharing schemes should therefore be considered a potential mechanism towards improving the living standards of PAP.

In terms of Paragraph 6 of the WBG's OP 4.12 (on which the LHDA Compensation Policy (1997) was based), the WB policy gives preference to land-based compensation strategies. However, due to land shortages in Lesotho, land-based compensation was not considered a sustainable option. In such circumstances the WB's OP 4.12 states that "non-land-based options built around opportunities for employment or self-employment should be provided in addition to cash compensation for land and other assets lost" (Para 11).

OP 4.12 recognises that resettlers must be provided with development assistance in addition to compensation. "Compensation with development" is therefore seen as good practice, and believed to be the only way in which PAP can sustain themselves once the project is completed (Huggins, 2008). This objective therefore places development at the centre of the compensation process such that resettlers can ultimately benefit from the project as a whole. These development schemes must however not be seen as a replacement for full compensation, but as additional mechanisms needed to restore and improve people's livelihoods.

Livelihood restoration typically refers to a strategic intervention to ensure that PAP's livelihoods are restored (Huggins, 2008). In some instances this refers to replacing lost productive assets with a direct equivalent. In other instances, productive assets may be impossible to replace, for example floodplain land lost to inundation, and alternative income generating streams need to be developed (Huggins, 1998). The implementation of a successful income restoration strategy should theoretically relieve the project of any need to continue supporting PAP, monetarily or otherwise (Huggins, 2008). As such, intervention may be short or long term depending on the ability of PAP to 'takeover' and sustain the livelihood restoration programmes. For this to occur PAP should, through a consultative process, design and select the preferred livelihood restoration options (Huggins, 2008).

The consultative process should not only inform people about feasible livelihood restoration options but should also aim to empower PAP to select their own sustainable income restoration options. All options should be technically, financially, and economically feasible, and PAP should have the necessary skills and capacity to implement them. Higher risks and uncertainties are introduced when diversified livelihood sources are lost (Cernea, 1997). In such instances single livelihood strategies should not replace multiple livelihood strategies. In the Mohale case study, the recreation of multiple livelihood restoration strategies was ignored. As such the proposed interventions did not provide a

suite of livelihood restoration programmes that were appropriate and sustainable i.e. based on existing local capacity, local resources, and local initiatives. This further compounded the dependence on cash compensation amongst PAP, which is one of the many challenges preventing PAP from engaging in sustainable development initiatives.

In subsistence communities, disruption to agricultural activities can adversely affect food security and lead to under-nourishment. In spite of this, governments and lending agencies are reluctant to adopt operational policies that require the loss of agricultural land to be compensated with alternative land. This is attributed to the increasing limited availability of arable land as well as its high price. However, this is concerning when most non-land-for-land programmes have failed to foster successful self-employment and other non-land-based livelihood strategies (Bartolome et al, 1999). Another major challenge is linked to public participation in the resettlement, compensation and livelihood restoration process.

4.6 Public participation in large dam projects

Following the resent developments within large dams, it is not surprising that public participation and transparency in decision-making processes were neither open nor inclusive throughout the 1980s (see Figure 4-1). Of the 34 dams surveyed by the WCD (2000), only 7 required participation as part of the decision-making process. While there has been a growing emphasis on transparency and participation in decision-making involving large dams, especially in the 1990s, actual change in practice still remains slow (WCD, 2002). The Commission's review attributes this to the following constraints (WCD, 2000):

- Insufficient time, resources and information are made available for public consultations;
- The spectrum of participants are usually very narrow, ignoring rural communities, indigenous groups and women, and affected people's organisations whose effective participation may be constrained both culturally and linguistically;
- Public participation often occurs late in the process and is limited in scope. Moreover where substantial differences arise, those seeking to modify plans and decisions often have to resort to legal or other action outside the normal planning process;
- There was a generalised failure to involve affected people in the design and implementation of project monitoring and follow-up; and
- The government agency staff leading the discussions had often been trained only in one sector (such as engineering) and this reduced the scope for promoting a multi-disciplinary approach.

Failure to provide a transparent process that includes effective participation prevents affected people from playing an active role in resettlement, compensation and livelihood restoration. As a result, PAP are unable to assist project planners in providing a development response that meets their needs and allows them to benefit from the project. This magnifies the negative impacts of development projects and alienates affected communities. The outcome is often not only poor performance of the social components of projects but also schedule delays, cost overruns, poor financing and economic

performance. This is especially evident in Zambia where the government is still correcting the past mistakes of Lake Kariba, which was constructed over 50 years later.

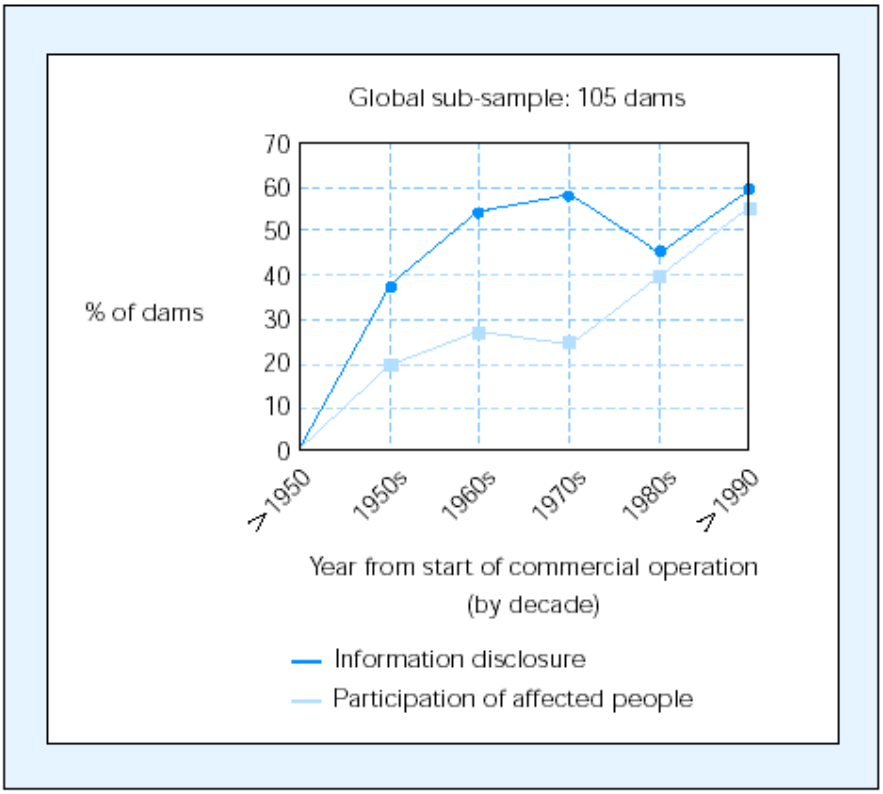


Figure 4-1: Trends in the provisions for participation and information disclosure
(Source: WCD, 2000: 176)

In many instances the responsibility to ensure that communities benefit from a project falls on the developer and government institutions. This is usually a result of an ineffective public participation process, which disempowers communities and takes away their responsibility for their own development. In such instances, the ESIA is often lead by a "top-down" development approach that compromises full participation, community ownership and the sustainability of the project. This often leads to developers making-decisions for communities who are perceived as helpless and vulnerable. This can potentially led to "dependency syndrome", whereby affected people become dependent on the project for their livelihoods. In order for PAP to take responsible for their own livelihoods, an active participation process that involves both the developers and the affected communities must occur. During this process project affected people are empowered to attain and realise their own right to development.

In some instances, however PAPs are not aware of the consequences of their own decisions. In an interview with a key informant it was stated that "sometimes people (PAP) do not know what is best for their wellbeing" (SA01). In this instance it is assumed that PAP are given enough information to make informed decisions about the project, whereas in most instances PAP are not given adequate information to make informed decisions about the project. During Phase 1B, PAP were given the choice to choose their own replacement housing. The PAP chose modern brick houses without understanding the implications of selecting such structures. Today respondents complain that their

replacement housing is not weather-friendly, difficult to maintain and not suitable to their lifestyles. This was clearly articulated in an interview with a key informant who stated "what was interesting about Makotoko was that people built rondavels besides those nice houses to duplicate their kitchens back at Mohale. This was because these cement structures were very cold in winter" (LS14). In other words, if the LHDA had given PAP enough information to make an informed decision about their replacement housing, perhaps people would have opted for the construction of their traditional structures. This again alludes to some of the unintentional consequences of development, which will be further discussed in chapter 7 of the research report.

With the extensive amount of literature available on the impacts of large dam projects, there is no reason why PAP should not be informed of the potential project impacts, as well as, the likely consequences of their decisions. As such PAP should understand how, and to what extent a project may impact on their lives. For this to occur, developers need to accurately disseminate project information and empower PAP to make informed decisions concerning their own development.

4.7 Conclusion

The WCD aimed to assess the overall development effectiveness of large dams and to derive lessons for other projects worldwide. In resettling PAP, efforts must be made to ensure that resettlement does not destroy livelihoods or social networks that are critical for securing livelihoods. From the WCD, a number of key lessons were learned. Resettlement and compensation must be guided by a development framework that does not lead to increased dependency on the project. This requires a process that prioritises livelihood restoration and sustainable development. In addition, compensation must be aimed at enhancing livelihood conditions, it should therefore not be perceived as a mechanism to secure livelihoods.

Designing appropriate resettlement and compensation packages is a complex and difficult exercise that should rely on fair, open and informed public participation. Through effective public participation, compensation has the potential to move beyond project handouts. As such, compensation needs to provide displaced people with an opportunity to achieve sustained improvements in their livelihoods. The development effectiveness of an ESIA must therefore be evaluated against its ability to provide meaningful and sustainable development opportunities for PAP. However, the analytical approach adopted by the WCD is not necessarily informed by an ecological framework. As such the development effectiveness of an ESIA must be measured against the human rights and the ecological limits to development.

5 Research context: Lesotho Highlands Water Project

5.1 Introduction

The Lesotho Highlands Water Project (LHWP) is a multi-phase water transfer and hydro-electric power scheme that diverts water from Lesotho's Senqu River system to the upper reaches of the Vaal River in South Africa. The Project is a result of the anticipated water shortages in Gauteng, which encouraged the government of South Africa to explore the prospect of transferring water from Lesotho to South Africa. After the evaluation of more than 2 000 variations amongst several main alternatives, the final proposal for the transfer of water from Lesotho to the Vaal Dam was endorsed. On the 24th October 1986 the LHWP was established with the signing of a Treaty between the governments of Lesotho and South Africa (Lesotho Highlands Development Agency, 1997). The Treaty of the LHWP provides for the establishment, implementation and maintenance of the Project. It outlines the designated authorities of the LHWP, which include the Ministry of Natural Resources for Lesotho, and the Department of Water Affairs and Forestry for South Africa.

The implementing agency at the operation level is the Lesotho Highlands Development Authority (LHDA) for Lesotho and the Trans Caledon Tunnel Authority (TCTA) for South Africa. Both these authorities are entrusted with the responsibility for implementation, operation and maintenance of the part of the Project located in their respective country. The LHDA is controlled by its Board of Directors whose members are appointed by the Minister of Natural Resources.

The basis of the Treaty is the delivery of high quality water to South Africa through the first Phases of the Project. The Treaty does not cover further Phases 2, 3 and 4 of the LHWP (Lesotho Highlands Development Agency, 1997). Within the Treaty the parties agree to take all reasonable measures to ensure that the Project is compatible with the protection of the existing environment and in particular, the maintenance of the welfare of the people and communities immediately affected by the Project (Lesotho Highlands Development Agency, 2005).

As a major Project, the construction of Mohale Dam was subjected to an ESIA. At the time of Project initiation, Lesotho was developing the required legislative framework for the implementation of ESIAs. To account for this shortfall, the LHDA adopted the World Bank environmental assessment guidelines for the preparation of the Mohale ESIA.

This chapter examines the research context, which includes not only a description of the environmental and social context within which the Project was implemented, but also the political context within which the ESIA was formulated and executed. As such the chapter describes the social and environmental context prior to the Project implementation. It also highlights the lessons learned from Phase 1A of the LHWP. This requires an understanding of the role of the WBG and the Panel of Experts who were instrumental in guiding the development of Mohale ESIA. This provides a contextual foundation for the interpretation of data collected during the in-depth interviews.

5.2 Project description

The LHWP is an USD8 billion multi-phase water transfer and hydro-electric power scheme that involves the construction of a series of dams and tunnels designed to divert water from Lesotho to South Africa. This project is to be implemented through a four-phased scheme that is scheduled to be completed by 2012 (LHDA, 2005). So far only Phase I (which includes Katse Dam and Mohale Dam) of the Project has been completed (see Figure 5-1).



Figure 5-1: Phase I of the Lesotho Highlands Water Project

5.2.1 Katse Dam

Phase 1A is comprised of a giant dam at Katse in the Maluti Mountains, a Muela Hydropower Station and two Delivery Tunnels (refer to Picture 5-1). Approximately 2,300 people living in 372 households were directly affected by Katse Dam. When this project was implemented in 1986 no EIA was commissioned to assess the impact of Katse Dam on affected communities. This resulted in a number of environmental and socio-economic problems surfacing during the implementation of Phase 1A (LHDA, 1997). These ranged from decreased livelihood security and increased sexually transmitted diseases to belief systems being trivialised and family relations being strained (Hoover, 2001). Experience gained from Katse Dam led to a more comprehensive and effective programme for environmental management in Phase 1B (LHDA, 1997).

5.2.2 Mohale Dam

Phase 1B, which comprises the main focus of this research, began in 1993 with construction starting in 1997 and the project finally being completed in 2004. Phase 1B captures water from the upper Senqunyane River and delivers this water through a tunnel system to Katse Dam (refer to Picture 5-2). The project consists of several distinct but interrelated components. The main component of the

project consists of a concrete-faced rock-fill dam, located some 40km south-west of Katse Dam. During construction the project comprised of quarries and burrow areas, a stockpile area for tunnel spoil, temporary access roads and bridges, as well as work areas. These were facilitated by permanent operation, maintenance and supporting components, which included the construction of communication networks, a large power supply, 22 km of road, offices, shops and residential areas. During Phase 1B the ESIA process was developed and implemented during the early planning and design stages of the Project. The Environmental Impact Statement (EIS) of Phase 1B (1997) provides a detailed description of the environmental and social context of the Project area prior to the construction of Mohale dam.



Picture 5-1: Katse dam



Picture 5-2: Mohale Dam

5.3 Project area description

The dam is located in the central highlands on land under the custodianship of two Chieftainships (Thaba Bosiu and Matsieng), and spans three Districts (Berea, Maseru and Thaba Tseka). The highlands of Lesotho, known as the Maloti, consist of an elevated and dissected plateau, with much of it above 2000m. The general landscape of the Project Area once exhibited a high to very high relief, which contained 71 473 ha of grassland, 15 083 ha of shrub land, 990 ha of wetlands, 4 914 ha of cultivation and 539 ha of settlement. In 1993 the population of the Mohale catchment was 7 435 Basotho living in 1 483 households and residing in 75 villages (Tshabalala, 1993). This section details the environmental and social context of the Project area prior to the construction of the dam. For purposes of this research greater attention is given to describing the social context of the Project area. A detailed description of the biophysical environment is found in the Mohale EIS (1997).

5.3.1 Biophysical environment

The project area is characterised by an elevation of between 2 500 m and 3 000 m above sea level. The geology of the area is dominated by a basalt formation with local intrusions of dolerite. Vegetation cover of the Project Area is dominated by three vegetation zones, each zone differentiated mainly by altitude. The Senqunyane River flows almost due south from the Mohale dam site for a distance of 120 km to meet the Senqu river, which is the largest river in Lesotho. The river is a single channel, deeply incised in the basaltic bedrock formation. A number of small waterfalls and chutes are present. The valley sides are steep and well- grassed, and the riparian zone is very narrow. The water quality in the Project area is generally good. (EIS, 1997)

5.3.2 Climate

The climate of the Mohale area is generally sub-humid, with about 85% of the precipitation occurring in the summer season from October to March when 10 to 12 rain days per month may be expected. The winters are normally cold (maximum -10°C and a minimum of -20°C) and dry with intermittent snowfalls. Hail occurs frequently and snow is common at higher elevations and may fall in any month of the year. Sudden weather changes are common, with temperatures falling rapidly within a few hours. The main rainfalls occur in the summer months, which are usually warm (EIS, 1997).

5.3.3 Soils, land capacity and use

The mountainous are steep and rocky, suitable only for rough grazing, with isolated pockets of deeper soil for cultivation in the valley bottoms. Soils are generally deep in the Senqunyane valley and their depth decreases with altitude and distance away from the valley bottoms. The best of the arable soils are suitable for wheat and not for maize production because of the climatic constraints of frost. The viscid nature of the soils and the stabilising influence of the high humic content in the surface horizons render the soils resistant to erosion under conditions of good plant cover. Land use therefore plays a major role in determining the extent to which erosion occurs (EIS, 1997).

5.3.4 Fauna and flora

The Mohale catchment contains 71 473 ha of grassland, 15 083 ha of shrub land and 990 ha of wetland. Vegetation is generally uniform throughout the area. There are four vegetation zones. These

include alpine and sub-alpine grasslands, sweetveld and disturbed grassland. Seven major wetland types occur in the study area. These are fens, oxbows, drainage lines, sheetrock depressions, marshes, springs and seeps. The area is characterised by sparse and stunted vegetation and dominated by the presence of Karoo species. A total of 367 species of plants were collected. The only endangered species of plant is the spiral aloe (refer to Picture 5-3). Many steep sided slopes have lost their original vegetation and are now being cultivated. Throughout the Highlands the natural vegetation is relied upon for grazing (EIS, 1997).



Picture 5-3: Spiral aloe

Sixteen mammal species were sighted in the study area, which is an indication that the small mammal densities are generally low. The most common mammals observed were hyrax, dassies and water mongoose. The highlands support a relatively low diversity of bird species. A total of 106 bird species were recorded. Of these, four are globally threatened species, and classified as vulnerable. These four species are the bald ibis, Cape vulture, lesser kestrel, and yellow breasted pipit. Four lizard species and five frog species were recorded. No snake species were encountered, but local residents indicated that two species, the rinkhals and puffadder were occasionally encountered. 390 insects and 14 other invertebrate species were collected (EIS, 1997).

5.3.5 Freshwater environment

Six indigenous fish species occur in the headwater of the Highlands. Two aquatic species were identified as rare and endangered. These included the Maloti minnow and the rock catfish. Water throughout the catchment has a low alkalinity. Water quality parameters from both the Senqunyane and Senqu rivers fall well within guidelines values established for domestic and agricultural water supplies in South Africa (EIS, 1997).

5.4 Socio-economic environment

The socio-economic description was established using data from two primary sources:

- Tshabalala, M, 1993, Phase 1B Socio-economic Census Report, Mohale, Lesotho Highlands Development Authority (LHDA), Lesotho; and

- Lesotho Highlands Development Authority, 1997, Phase 1B, Environmental Impact Assessment, LHDA, Lesotho.

The data describes the socio-economic context prior to the construction of Mohale Dam.

5.4.1 Population and settlements

In Lesotho, the primary unit of settlement is traditionally the village (*motse*). A village is also an organisational base for management and control of community resources. The primary unit of village society is the household and the household head is the legal and customary representative. Administration of the village is structured hierarchically through two parallel, but related institutions of Chieftainship and the Central Government.

In the Mohale area the mean size of the villages is 99.13 persons per village. The average household size in the Mohale area ranged between 1 and 21, with an average household size of 5.6 (Tshabalala, 1993). The sex distribution of the population in Mohale catchment was unusual in that there were proportionately more males (51 percent) than females (49 percent) (LHDA, 1997). The age distribution showed that the population in Mohale catchment was very young. This was generally an indication of high elderly death rates (Tshabalala, 1993). Some 70% of the people living in catchment are married, 20% are widowed and 2% separated. Male household heads formed 18% of the total population, while spouses formed 13% and children comprised 46% of the total population. The extended family is the building block and fundamental social unit (Tshabalala, 1993).

5.4.2 Institutional arrangements

The Phase 1B Project Area is situated in the central Lesotho Highlands on land under the custodianship of two Chieftainships (Thaba Bosiu and Matsieng), and spanning three Districts (Berea, Maseru and Thaba-Tseka). There is a three tiered development council structure consisting of a village development council (VDC), a ward development council (WDC), and a district development council (DDC). This structure as well as the Chieftainship structure falls under the Ministry of Home Affairs and Local Government (EIS, 1997).

In addition to Chieftainship, a number of villages, always under the same Chief, grouped together to form voluntary based organisation. The most common organisations were burial societies (77%), followed by stock theft control groups (24%), farmers' associations (5%), communal gardens (4%), and village water supply (4%). About half of the villages had two organisations, which showed the collective need to solve problems. Overall it also showed that the priority problems in the catchment included burial and stock theft.

5.4.3 Land use

The main community resource is land. Arable land is a national asset, held in trust for the nation by the King. The rights to the use of this land were formerly exercised by the Chiefs. These rights were later transferred to the Land Allocation Committees, chaired by the Chief. An important communal asset is summer grazing land. Besides local grazing, livestock owners use distant cattle post areas in

the high mountains during the summer months. Traditionally the cattle posts are controlled by the Principal or Ward Chief, however, it is commonly the residents of the adjacent villages who have preferential access (Tshabalala, 1993).

Many of the steep slopes of the Highland mountains were cultivated (refer to Picture 5-4). The average number of fields owned per household was three and this ranged from between one to nine fields.



Picture 5-4: Fields situated along the mountain slopes of Ha Mohale

The majority of the fields in the Project Area were used for cultivating maize (79%), with lesser areas under sorghum (15%) and other crops (generally 1-2%). The main crops grown in the study area included maize, wheat, peas, beans and oats. About 50 percent of households produced vegetables with the most important vegetables being cabbage, spinach, onion, potato, tomato and a variety of others included radish, peas and beans. Marijuana was the most important cash crop in the area. It was mainly interplanted with maize and was grown by about 70 percent of all farmers (LHDA, 1997).

Data indicated that of 1140 fields in the Project Area, 36% of all fields will be affected; 814 fields representing 25% were identified as going to be inundated, while 326 representing 10% were identified as dangerously located (see Table 6-7). These figures do not include land fields that will be taken by advanced infrastructure and construction camps.

The rural communities of the Highlands rely on a large number of indigenous plants for a variety of domestic uses. A total of 175 plants were identified as having medicinal or magical properties for either animals or people. People in the Project Area named 126 aliments that are cured or magical powers that are invoked by these plants. In addition to using wheat straw for roofing, communities used thatch grass and reeds for thatching. Willows, poplars and the honey locust were used for roofing poles.

Shrubs were mainly used as a source for fuel.

A large number of wild plants were used for food. The rare spiral aloe was illegally collected and sold for Lowland horticultural purposes. Endangered bird species including the black stork and the bearded vulture were hunted and used for food, medicinal or magic purposes.

Wild animals in general were captured for food, medicine and traditional dress. A number of amphibians and reptiles were consumed, or used for medicinal purposes.

5.4.4 Livestock

Livestock ownership is commonly an indicator of a household's economic status. In the Project Area there are three main classes of livestock: cattle, sheep and goats. In the catchment area 6350 cattle were owned by 70% of the households with an average of 7 cattle per household; 18745 sheep were owned by 46% of households with an average of 31 sheep per household; and 10491 goats were owned by 43% of households with an average of 18 goats per household. It was also noted that 76% of households owned at least one of these classes of livestock and 34% own a combination of all these classes of livestock. Other livestock maintained include goats, sheep, swine, poultry, horses and donkeys (Tshabalala, 1993).

Although there was a wider distribution of cattle among households, ownership of these classes of cattle was generally skewed. For example, 56% pf the households owned 53% of cattle in herds of 10 and below; 14% of households own 36% cattle in herds of 11 and more; the largest herd size is 50. The unequal distribution of livestock ownership is more pronounced in sheep and goat ownership. For example, 8% of households own 62% of sheep in flocks of 51 and more; the largest recorded size of flock is 700 for sheep and 300 for goats. Overall, 34% of households own 61% of cattle, 89% of sheep and 90% of goats.

5.4.5 Housing and Assets

The average number of houses or rondavels (refer to Picture 5-5) per household was two and ranged from 1 to 9 houses. Land based assets have a relatively high distribution among households, 75% own vegetable gardens, 47% own non-fruit trees and 38% own fruit trees.



Picture 5-5: A picture of a typical rural household

5.4.6 Services

The most common services distributed throughout the catchment were schools and churches. The two villages of Mohale and Likalaneng emerged as main local service centres within the Project Area. Services found in these villages served all other villages in the catchment (Tshabalala, 1993).

5.4.7 Health and welfare

Malnutrition varied in the Project Area, with few exceptions from high levels to very high levels in children under 15 years of age. Stunting indicated chronic under nutrition, as well as mild to moderate levels of endemic goitre in school aged children and adult women. This is mostly as a result of the limited variety of foods consumed and an irregular intake of protein. Adolescent boys were more under nourished than girls and this pattern continued into early adulthood. In contract, almost all the women were either overweight or obese.

Overall, 15 of 223 serum specimens were found to be HIV positive (7%) for HIV antibodies. HIV was detected exclusively in those who resided along the main road (LHDA, 1997).

Common water borne ailments include diarrhoea and stomach ache. The common healthcare facilities accessed by the population include professional medical practitioners in hospitals and clinics, traditional healers and spiritual healers. Populations of the mountainous areas of Phase 1B have a low utilisation of modern healthcare services. The existing facilities in Phase 1B consist of: clinics at Likalaneng and Marakabei and the St. James Hospital at Mantsonyane, which are staffed by two medical officers.

These facilities are located along the main road on the southern limits of Phase 1B. The clinics required basic maintenance including the provision and guarantee of reliable water supplies. Sanitation facilities for patients could also be improved.

Services offered at the clinics include a daily Outpatient Department (OPD) and on-call services for deliveries and casualty. Services include; child health and immunisation; ante-natal care; family planning; post-natal care; curative services (acute and chronic diseases); casualties; maternity services; and control of TB patients.

5.4.8 Water supplies and sanitation

About 44% of the villagers used river water regularly for drinking purposes and 41% used it occasionally. The majority of people (90%) who used the river water reported poor quality water due to silt, smell, illness after drinking and a combination of these factors. A majority of the people used the river water for bathing and a large number use it for washing clothes. A traditional practice was to wash the clothes of the deceased in the river, even if an alternative water source was available. Very few, if any, villagers drew water from the river as a source of irrigation, a few drew water from the river by bucket to water plants.

Natural springs are the source of mountain community drinking water (refer to Picture 5-6). These springs meet other community water needs but the rivers and streams are used for washing and livestock watering. There were no piped water systems in the Project Area. There were only 74 toilets in the catchment for 2 966 houses.



Picture 5-6: A natural spring in Ha Pitseng

5.4.9 Education and literacy

Educational attainment in the area was generally low. A much higher portion of males (43%), five years of age and above, have no formal education compared to females (13%). On the other hand a much higher proportion of females, in the same age group, have completed seven years of primary education (36%) compared to males (13%). A much higher proportion of females, 10 years of age and above, were enrolled in school (25%) compared to males (17%). The illiteracy rate is 56% amongst males and 16 percent amongst females. This translates to 65 % literacy for the population, which is lower than the national illiteracy rate of 72%.

5.4.10 Energy and telecommunications

Energy sources in the Project Area are primarily gained from bio-mass and other non commercial fuels. A wide variety of fuels are used and there is a very high degree of fuel switching in the area. Main sources of energy include dung, shrubs, firewood, crop residues, annual weeds, paraffin and candles. By choice people preferred wood (34.1%), followed by paraffin (26%), dung (21%), coal (14.8%), shrubs (3.4%), and gas (1.1%). Coal and gas were scarcely used.

Telecommunications in the area were non-existent.

5.4.11 Transport

The Western Access Road (WAR) was the closet road to the Project Area prior to the building of the Mohale dam and Mohale access road. All other access throughout the Project was by mountain track, passable only by horse or on foot.

Two river crossings were located within the reaches downstream of the Mohale Dam. A number of drifts existed along the lower Senqu River where crossings are made during periods of low flows.

5.4.12 Local economy

The size of the labour force (population aged 15 to 64 years) in 1993 was 66% of the total population (Tshabalala, 1993). However, when considering the same age group currently enrolled in

school the figure goes down to 52% of the total population (LHDA, 1997). The main occupation in the catchment area is housework. The other reported occupations included herding, small businesses and wage labour.

Formal local wage employment is minimal and is restricted to herdboys (7% of males and 4% of the population). All other categories of formal local employment absorbs less then 2% of the population 10 years of age and above. The major source of regular wage employment is in RSA mines (predominantly for males). The majority of the population (59%) is engaged in local subsistence production activities including herding livestock. The pool of skills available is also very limited. Mining experience is the only dominant skill (males), followed by handicrafts (females).

5.4.13 Livelihoods

Although essential (agriculture), it was not a sufficient condition for survival. Most households were dependent on a combination of multiple livelihood strategies that included cash income and subsistence agriculture. As such, a system of subsistence production coexisted with an informal market economy (LHDA, 1997).

Average reported annual cash income in the Mohale catchment was R3 400 per household with a range of R20 to R59 700 and a median of R2 400. The magnitude of negative difference between mean annual income and median shows that the cash income is highly uneven. 64% of the households reported less than the average and their combined income accounts for 30% of the total annual income; and 17% of households reported less than R1 000 per annum. The 10 % of households reported R7 000 and more and their combined income accounted for 33% of the total annual income.

Households depend on multiple sources of cash income. The top five sources were (Tshabalala, 1993):

- Remittances (30% of total reported annual cash income);
- Land based incomes mainly agriculture (19%);
- Local wages and salaries (12%);
- Sale of livestock (11%); and
- Sale of home made beer (5%).

Most households depend on other income in kind, particularly their own produce and communal resources such as wood. It is known that a substantial cash income is derived from the illegal growing and sale of marijuana, but no information is available on the amounts grown or the incomes derived from the sale of marijuana.

On the expenditure side the average cash expenditure per household was R2 002. The top categories were food (66% of total annual expenditure); clothing and footware (15%); cultural expenditure and education (5%); building material (4%) and livestock purchases (3%). Almost all households had expenditure on food and had a high average cost per household. The most important economic

activity was access to the agricultural resource base. Very few households reported having expenditure on building and household furniture and equipment.

5.4.14 Gender

The typical Basotho village is divided spatially into two separate realms: (i) that of the women (the houses); and ii) that of the men (the cattle kraals). The responsibilities of the men involve government and politics, ownership of wealth, hunting and working for the Chief. The women's responsibilities include agriculture, cooking, collecting water, and raising children, making crafts, plastering houses and making beer. With regard to agriculture, the men were however responsible for the ploughing, planting and the harvesting.

Women in the mountains have a large daily burden as they are responsible for all of the household chores and a number of the agricultural activities including weeding.

5.4.15 Archaeology and cultural heritage

Heritage sites considered included ruins, initiation sites and rock art. A total of 40 ruins were reported in the Project Area, as well as 10 caves and one bushman painting. This also included the identification of cemeteries for reburial.

An ethnographic study was not undertaken for Phase 1B. As such it can be assumed that an in-depth understanding of the unique culture of the Basotho Highlander did not inform the ESIA decision-making process. The ESIA did however cover gender dynamics and did make reference to the cultural identity of the Basotho Highlander.

In the ESIA the Basotho village was described as being spatially divided into two realms; (i) that of the women (the household); and (ii) that of men (the kraal). Traditionally men and women were not allowed into each other's realms. Men were involved in matters of governance and issues of wealth, while women were responsible for agriculture, cooking, collecting water, raising children, making crafts, plastering houses and making beer. Other the other hand, men did have the responsibility of ploughing, planting and harvesting.

According to the ESIA (1997), the harsh climate, difficult terrain and remoteness from modern facilities, services and amenities shaped the cultural identity of the people in the Project Area. In the ESIA this cultural identify is defined by the characteristics of economic independence and self-reliance (ESIA, 1997). The Panos Institute (2001) confirms this finding in interviews conducted with over 40 respondents from several villages in the Project area. During these interviews it was noted that "their greatest concern was the loss of their independence and also their self-esteem" (The Panos Institute, 2001: 2). In order to source further data on the customs and culture of the Basotho one has to refer to texts written by missionaries and anthropologists.

From these texts it becomes apparent that Basotho living in the Highlands are not proud agriculturalists by tradition, instead, their traditional preference is for large quantities of livestock. "The people of Lesotho are above all pastoralists. The herds which they possess have constituted until now their principle wealth" (Ashton, 1967: 142). Therefore the possession of livestock, particularly cattle, is as economically desirable as socially essential. As the Basotho clearly state, "a beast is the god with the wet nose" (Ashton, 1967: 142).

Although cattle are considered their source of wealth, the Basotho depend more on their fields than on their livestock to secure their livelihoods (Casalis, 1861). In addition to this money has always provided for a variety of household goods and customs. As such the Basotho have always worked for their income. "Tax was the most urgent and compelling reason, but long before tax was imposed in the late 1860s, Basotho went out to work" (Ashton, 1967: 33). Labour migration is therefore not new to the Basotho. Currently about 70% of the mean rural income is derived from migrant labour, while only 6% is derived from domestic crop production (Murray, 2000). "The population of Lesotho is today aptly described as a rural proletariat which scratches about on the land" (Murray, 2000: 19). As such no aspect of contemporary village life can be understood without reference to the dependence of villagers on migrant labour (Murray, 2000).

In the Highland communities rituals that mark the stages of individual development reaffirm family and community solidarity. As such Basotho "morality depends solely on the social order" (Casalis, 1861: 302). This is clearly illustrated by Basotho proverbs, which state "one link only sounds because of another" and "we cannot do without the help of our fellow creatures" (Casalis, 1861: 311). It is therefore not surprising that the community and social capital of the Basotho are very important for the health of the individual. This is represented by the Sesotho word for health "*bophelo*", which represents not only individual health but also a holistic picture of communal, environmental and spiritual health (Germond, 2006).

Basotho believe in the existence of ancestors and the immotality of the soul (Casalis, 1861). "It is to the names of their ancestors that the Basotho address their prayers" (Casalis, 1861: 243). The Basotho believe that man still exists after death and is capable of acting upon the living in a beneficial or pernicious manner. Prior to the introduction of Christianity in Lesotho, every disease was attributed to the ancestors or to that of witchcraft. Thus medicine among the Basotho was entirely a religious affair. Doctors performed the functions of prophets, priest, and diviners. They foretold the future and kept direct communication with the world of spirits.

Although Christianity has somewhat affected the influence of traditional healers, they still play a significant role in the health seeking strategies of the Basotho. As such, health seeking patterns amongst the Basotho cannot be understood without appreciating the role of the traditional healer. This is another area unconsidered by the Mohale ESIA. Thus it is not surprising that health was narrowly defined by the 'familiar' institutions of clinics and hospitals. This was because most of the institutional and regulatory frameworks informing the Mohale ESIA were influenced by western ideals of development.

5.5 Phase 1B Institutional and regulatory frameworks

The legislative framework for Phase 1B of the Lesotho Highlands Water Project was based on the following legislation:

- Lesotho Constitution, 1993 (Article 17 that stipulates "prompt payment of full compensation" for compulsory acquisition of property for public purposes);
- Lesotho Highlands Development Authority Order 1986 (Section 44 (2));
- Treaty on the Lesotho Highlands Water Project, 1986 (Article 7 (18));

- Lesotho Highlands Development Authority Compensation Policy of 1997;
- The Land Act 1979 (Act No. 17 of 1979); and
- The Environmental Act of 1997.

Within this legislation little is discussed regarding resettlement planning. Rather the legislation deals with usufruct property rights and the expropriation of land by the government. For purposes of this research the bi-national treaty, the LHDA Compensation Policy and the Environmental Act are discussed in further detail.

5.5.1 The bi-national treaty agreement

The bi-national treaty agreement is an agreement between Lesotho and RSA and is binding on both parties ("the Treaty"). The basis of LHDA's Compensation Policy (1997) is expressed in Article 7 para. 18 of the Lesotho/RSA Treaty on the LHWP:

'The LHDA shall effect all measures to ensure that members of local communities in the Kingdom of Lesotho, who will be affected by flooding, construction works, or other similar project-related works, will be enabled to maintain a standard of living not inferior to that obtaining at the time of first disturbance: Provided that such Authority shall effect compensation for any loss to such member as a result of such project related causes, not adequately met by such measures.'

Article 15 of the Treaty states:

'The Parties agree to take all reasonable measures to ensure that the implementation, operation and maintenance of the Project are compatible with the protection of the existing quality of the environment and, in particular, shall pay due regard to the maintenance of the welfare of persons and communities immediately affected by the project'.

5.5.2 Lesotho EIA regulations

Environmental legislation in Lesotho is governed by Section 36 of the Constitution of Lesotho (1993), which states:

'Lesotho shall adopt policies designed to protect and enhance the natural and cultural environment of Lesotho for the benefit of both present and future generations and shall endeavour to assure all citizens a sound and safe environment adequate for their health and well-being'.

In order to fulfil the requirements of the Constitution a legal framework was introduced to manage EIA processes. In 1999 the Government of Lesotho (GOL) enacted the Environmental Act (1999), which promulgated EIAs as a legal requirement for prescribed projects and activities (GOL, 1999). Even though EIAs were not a legal requirement prior to 1999, this is not to say environmental issues were entirely ignored.

Prior to the Environmental Act of 1999, environmental issues where addressed by the National Environmental Action Plan (NEAP) of 1989 (Southern African Development Bank, 2007). The NEAP set out provisions to increase environmental awareness in sectoral planning and

programming. It also recommended an institutional framework for the management of environmental affairs. This led to the establishment of the National Environmental Secretariat (NES) in 1994, which in May 1994 launched the National Action Plan (NAP). The NAP built on the National Environmental Action Plan and incorporated several sectoral priorities and plans for implementing international conventions on biodiversity, climate change and desertification (Southern African Development Bank, 2007). This was then replaced by the National Environmental Policy (NEP) in 1996, which explicitly prescribes the processes for EIA implementation (GOL, 1999).

Today the NES falls under the Ministry of Tourism, Environment and Culture. It is the administrative structure responsible for managing EIAs. In 2001 NES updated the Environmental Act of 1999. The Draft Environmental Act No 15 of 2001 was never formally gazetted, but all government institutions and environmental practitioners in Lesotho have been operating within this legislation (Southern African Development Bank, 2007). Currently there is a new Environmental Bill before Parliament which is similar in scope to the 2001 Act (Southern African Development Bank, 2007). It proposes a new institutional and administrative structure that provides for the management of the environment and all the natural resources of Lesotho. Under the new Act, a National Environment Council (NEC), comprising several ministers, a wide cross-section of stakeholder representation, and chaired by the Minister responsible for the environment, will be established. The Council will have the responsibility for drafting environmental policies, plans and activities of government departments as well as ensuring stakeholder participation in environmental protection. It will also have the power to implement procedures for review and approval of EIAs. This will encompass, among other things, support training and technical assistance to staff and other bodes, private or public, concerning criteria guidelines and the implementation of EIAs. Such training is essential given that most developers in Lesotho do not understand the purpose and value of implementing EIAs (LS02).

In Lesotho most developers perceive ESIAs as a hindrance to development. “Currently EIAs are an afterthought. There is a misconception that EIAs slow down development, so when EIAs are implemented, this is to fulfill legal requirements and not to add value to the development project (LS02)”. Most “EIAs are conducted to meet the requirements of the NES and not because developers are actually concerned about protecting the environment or mitigating adverse social impacts (LS05).” These perceptions are a major constraint to implementing ESIAs in Lesotho. This is accentuated by perceptions of development that prioritise economic growth. In Lesotho for ESIAs to become effective, “priorities need to be put in order. Sustainable development and EIAs have to be prioritised (LS02).” From such a statement, it would seem that definitions of development that prioritise economic growth over social risks and environmental protection are the greatest challenge to implementing ESIA in Lesotho.

“In order for development to be sustainable, social benefits have to be seen. Natural resources have to be protected. Don’t think this is how our government would define development. For them it is about creating jobs and development is not sustainable. Economic development is prioritised (LS02).”

Accordingly the overarching focus of sustainable development is economic growth. It therefore can be argued that the *contest perspective* dominates Lesotho’s conceptualisation of sustainable

development. Thus Lesotho promotes a form of sustainable capitalism that protects and sustains the physical environment for continued economic growth (LS02). ESIA in Lesotho is mainly used to ensure economic growth and not necessarily the protection of the environment and people's rights (LS05). As such definitions of development affect the implementation and outcomes of ESIA. This includes the management plans and mitigation strategies, which accompany ESIA implementation.

5.5.3 Compensation Policy of 1997

The Compensation Policy of 1997 (GOL, 2002) served as a set of guidelines to assist the Lesotho Highlands Development Authority in implementing its compensation programme. The policy prioritised the public participation of people and communities directly and indirectly affected by the LHWP. It also ensured that compensation principles were applied uniformly throughout the Project. The policy served as an elaboration of the LHDA Order of 1986 which stated that:

"the Authority shall ensure that as far as possible, the standard of living and the income of persons displaced by the construction of an approved scheme shall not be reduced from the standard of living and the income existing prior to the displacement of such persons (GOL, 2002)".

The Compensation Policy of 1997 is 'subordinate legislation', which provided a framework and set out the procedures for implementing compensation in Phase I of the Lesotho Highlands water Project.

The objectives of the Policy (1997) were to:

- Satisfy the legal obligations as defined by the LHDA Order of 1986;
- Facilitate and provide mechanisms of participation for the people and communities directly and indirectly affected by the LHWP;
- Ensure that compensation principles were applied uniformly throughout the Project; and
- Encompass elements of development, environmental protection, health and social welfare as an integral part of the Environmental Action Plan.

The Policy (1997) was applied to:

- Villages and households wholly or partially inundated or within the demarcation line;
- Villages and households severely affected by construction work; and
- Villages and households situated in a place regarded by LHDA as unacceptably dangerous in relation to the reservoir or to the construction works, or affected as a result of impoundment of reservoirs.

Affected households were eligible for compensation for the loss of:

- Individually fixed assets including buildings, trees and graves;

- Production from arable and garden land;
- Rights and access to communal assets including grazing, brushwood fuel, useful grasses, wild vegetables and medicinal plants; and
- Access due to Project works such as flooding of existing feeder and access roads.

Households sustaining loses were entitled to compensation according to the same set of principles.

A summary of these entitlements, as outlined in the Compensation Policy of 1997, are provided in Table 5-1.

Table 5-1: A summary of compensation entitlements

Entitlement	Description
Individually owned assets	• Replaced with new buildings of equivalent floor area and of a standard not lower than the original building. • Basic fixtures provided. • In cases where individuals want to buy houses, they shall be allocated the equivalent value. • Kraals and outbuildings will be replaced or compensated for in cash based on the valuation of these structures. • New residential plots will be fenced, unless the owner wishes otherwise. • One toilet will be provided for each resettled or relocated household. • Each household will be provided with heating/cooking and shall have the option to accept the cash equivalent. • Graves will be exhumed and reburied according to the wishes of the family up to a cost limit established by the LHDA. • Trees will be compensated with a lump sum or annual cash payment equivalent to the lost production. • Damaged buildings and other structures will be repaired without necessarily replacing the entire structure. • Owners of business structures shall be given a choice of receiving full replacement value of the property in cash or arranging for the design and construction of equivalent premises.
Production from arable land	• If arable land greater than 1000sqm is required by the Project, and the household wishes to be compensated with land, LHDA where possible shall endeavour to provide alternative land in a place acceptable to the affected household. • Land rights granted to the household shall provide tenure equivalent to that previously held by the household. • LHDA shall reclaim land for agriculture through such means as reinstating a spoil dump for agricultural purposes or moving soil from a reservoir basin to a higher terrace, • If LHDA requires part of a field and the remainder is less than 500sqm, LHDA will, if the landowner agrees, acquire and compensate for the entire field. • If the land owner wishes to continue cultivating the land, LHDA shall permit him or her to do so. This shall not affect the amount of compensation paid. • Loss of arable land may be compensated with cash in the form of an annual cash payment, or a lump sum payment with certain provisos. • **Annual cash compensation** – is the total amount of the annual cash paid to each recipient (over a 50 year period) for the loss of arable land. This shall be determined on the basis of the established production capacity of the land. The amount shall be determined in such a way that the affected household can afford to purchase a basket of commodities as determined in the Compensation Rates. • **Lump sum payment** – where a recipient wishes to replace his or her arable land income with income from a specific investment LHDA shall carefully examine the security and the likely yield of the proposed investment. Only in cases where LHDA is satisfied that the

	recipient is capable of managing the investment properly, shall LHDA award a lump sum payment. The amount shall be calculated for the annual cash payment at a 4.5% discount. If the land is smaller than 1000sqm compensation shall be calculated on the same basis as that for holders of larger areas of arable land.
Grain	• If the recipient chooses grain compensation, the payment shall be directly proportional to the area of land lost. The recipient shall have the option, after a specified period, to convert from grain to an annual cash or lump sum payment.
Sharecroppers	• LHDA shall not compensate those holding secondary land rights. Instead the owners of the fields will be compensated. Landowners and sharecroppers can make subsequent arrangements as to their share in the compensation.
Gardens	• Where LHDA acquires a garden it shall ensure that the replacement residential site includes a cultivable area of equivalent size or equal in production value to that of the previous garden. • LHDA shall provide a minimum of 300 sqm of cultivable land for each residential resettled household. • If suitable garden land cannot be found at the new site, LHDA shall investigate the feasibility of creating gardens by earthmoving and landscaping. • Only if all options have been exhausted will LHDA offer compensation in the form of annual cash payment or lump sum payment.
Communal assets	• All communal assets will be compensated in the form of lump sum or annual cash payments. These funds shall be used for development purposes within the communities. • Compensation shall be calculated on the basis of the number of households resettled or relocated.
Public infrastructure and amenities	• Compensation will be based on the principal of 'equivalent reinstatement'. • Domestic water supply shall be reinstated or replaced with another of equivalent yield, quality and convenience. • LHDA shall replace any Government-owned local infrastructure and public amenities it acquires, such as woolsheds, dips, clinics etc. LHDA also effect required repairs in those cases where damage does not require replacement. • Where LHDA acquires public buildings and land belonging to a group or section of the public, its replacement shall proceed along the same lines as the replacement of individually owned premises.
Vulnerable households	• LHDA shall identify and register all vulnerable households. • LHDA shall establish a minimum household income threshold below, which no vulnerable household income shall fall. Shortfall in household income shall be made up to the level of the threshold for a maximum of 10 years. The top-up payment shall be different between the threshold amount and the households' lost income. • Vulnerable households shall receive individual attention to ensure that they are enabled to retain and where possible improve upon the standard of living they enjoyed before the project affected them.
Disturbance allowance	• This allowance will be paid to all households included in the resettlement and relocation programme, and is intended to meet the unforeseen but inevitable costs of moving. The amount will decrease incrementally to zero over three years from the date of arrival at relocation destination.

Even though a number of criticisms have been levelled at the Compensation Policy (1997) what is of utmost importance is the way in which the Policy was implemented and experienced by PAP. This is addressed in Section 7.5.

5.6 Lessons learned from Katse Dam

A number of social and environmental issues surfaced during the construction of Katse Dam. At the time LHDA was dominated by an engineering philosophy, which was not concerned with the social and environmental impacts of the Project (LHDA, 1997). In examining the experiences from Phase

1A, LHDA has tried to avoid repeating the same past mistakes. The following describes the most important lessons drawn from Phase 1A.

The issues and the lessons learned were derived from three main sources: (i) the knowledge and experience of LHDA staff involved in the construction of Katse Dam; (ii) information available from World Bank mission reports; and (iii) the reports of the Environmental Panel of Experts (LHDA, 1997). In the Mohale ESIA (1997: 8) lessons learned from Katse Dam are discussed in the context of six main themes:

- Management;
- Local people;
- Socio-economic concerns;
- Compensation;
- Environment; and
- Rural development.

5.6.1 Management

During Phase 1A (Katse Dam) there was little or no coordination between the engineering divisions, and the environmental divisions. As a result, the engineering staff took control of their own environmental impacts, which usually resulted in the environmental and social impacts being ignored. With the construction of Phase 1B, the communication and interaction between these components was greatly improved (LHDA, 1997). In addition, Phase 1A was not inclusive of other important stakeholders i.e. NGOs. This generated an enormous amount of bad publicity. To address this weakness, the environmental divisions of Mohale Dam sought to involve and maintain close liaisons with the NGO community (LHDA, 1997). The overall objectives of the Mohale community and public participation process was to provide affected people with opportunities to participate in the planning, design, implementation, management and monitoring of programmes. This was to ensure that PAP participated in the process used to address the positive and negative impacts associated with the LHWP (LHDA, 1997). Whether this objective was achieved will be discussed in chapter 7.

5.6.2 Local People

Throughout Phase 1A little consideration was given to local people who would be most affected by the Project. The people in the Project Area were not informed about the construction programme. They were treated indifferently and their importance as stakeholders was not recognised (LHDA, 1997). During Phase 1B the LHDA made a concerted effort to include local people in the decision making processes of the Project. Regular meetings were held with PAP (LHDA, 1997). This process was facilitated by the formation of democratically-elected local government structures and institutions, which were supposed to facilitate community participation and a two-way communication process between LHDA and the affected communities (LHDA, 1997). The reality of which will be discussed in chapter 7.

5.6.3 Socio-economic concerns

Many of the Project associated impacts were not addressed during Phase 1A. This included the problems associated with an influx of people from outside the Project area. In addition to this, public healthcare was not considered important during the early stages of Phase 1A (LHDA, 1997). This resulted in an increase in STDs and HIV and AIDS.

During Phase 1B, an increase in STDs and the spread of HIV and AIDS were considered the most significant project impacts. As a result a number of measures were identified to mitigate this Project impact. This included HIV and AIDS awareness raising, as well as, providing the Ministry of Health and Social Welfare with capacity building and management skills training.

5.6.4 Compensation

The Katse Dam compensation programme was criticised for being slow, bureaucratic and rigid. This was compounded by an inefficient record keeping system that was unable to verifying or valuing claims. In addition compensating PAP with grain for 15 years and fodder for 5 years had no legal justification. It was felt that this form of compensation encouraged dependency and left PAP worse off (LHDA, 1997). During Phase 1B people were discouraged from choosing grain compensation or compensation in-kind, instead PAP were given cash compensation, which was supposed to be supported by a development programme. chapter 7 assesses whether the Phase 1B compensation process implemented an improved compensation policy.

5.6.5 Environment

The planning, design and construction of Phase 1A proceeded without an EIA. Baseline studies were carried out after construction began, for example, the erosion and sedimentation study was only carried out in 1996. To mitigate some of the adverse environmental impacts, the environmental Action Plan for Katse Dam was completed following the completion of the EIA (LHDA, 1997). In order to prevent environmental degradation, an ESIA was implemented prior to the construction of Mohale dam.

5.6.6 Rural development

During Phase 1A the rural development programme was late in starting and was slow to show any positive results. The initial planning of the programme was not realistic in that it lacked the understanding of the required implementation mechanisms or the political will to implement these programmes. In Phase 1B rural development was supposed to be prioritised as a mechanism for mitigating adverse social and environmental impacts. A Resettlement and Development Action Plan was supposed to implement a number of development programmes that prioritised infrastructural development, tourism and agricultural production (LHDA, 1997). The development effectiveness of the rural development in Phase 1B will be further discussed in chapter 7.

5.7 Conclusion

This chapter provided a detailed description of the LHWP. It also described the baseline data as outlined in the ESIA. It was concluded that the Mohale ESIA did not undertake an ethnographic study. As such, the chapter examined anthropological accounts of the Basotho culture. This was

critical in developing a cultural understanding of the Basotho Highlander. As such, the chapter describes the environmental and social context within which the Project was implemented. Added to this, the chapter provided a detailed description of the legislation and policies informing the Mohale ESIA and Project construction. This included an account of the political context within which the ESIA was formulated and implemented.

6 Mohale Dam: Resettlement, compensation and livelihood restoration

6.1 Introduction

The Mohale ESIA identified a number of negative and positive environmental and social impacts. This led to the development of a suite of environmental management plans as described in the Environmental Action Plan (1997). The main objective of the Environmental Action Plan (EAP) was to mitigate negative Project impacts, while accentuating positive Project impacts. The EAP consisted of five main sector programmes; resettlement, compensation, development, public health and the natural environment. These five main sectors were divided into three mitigation plans that addressed a number of overlapping positive and negative impacts; (i) the Natural Environment and Heritage Action Plan; (ii) the Public Health Action Plan; and (iii) the Resettlement and Development Action Plan. For purposes of this research, the impacts and mitigation strategies addressed by the Resettlement and Development Action Plan will provide the main focus of this chapter.

The Resettlement and Development Action Plan (1997) attempted to mitigate and reduce the social impacts identified by the Mohale ESIA. This was supposed to occur through the implementation of a resettlement and compensation process that prioritised livelihood restoration and development. In the Resettlement and Development Action Plan (RDAP) four development priority areas were identified. These included infrastructure, agriculture (including livestock, forestry and fisheries), tourism, and income restoration (including training and enterprise development). From a superficial analysis of the RDAP (1997), one could easily assume that the LHDA did perceive compensation and resettlement as an opportunity for development. However, in reality the experience of those affected by the RDAP portrays a rather different picture. This finding can however not be fully understood without a detailed description of the Mohale ESIA, the identified social impacts and the subsequent EAP.

This chapter will describe the Mohale ESIA, the assessment methods, the identified positive and negative social impacts, and the RDAP. This background information is critical in providing the grounding for interpreting and analysing the qualitative data collected during interviews with PAP.

6.2 The Mohale Dam Environmental and Social Impact Assessment

The ESIA conducted for Phase 1B of the LHWP was published in 1997 by the LHDA. The ESIA was implemented partly as a result of the Treaty (1986), which required that the Project be implemented to ‘international standards’. The greatest influence was however from donors, both regional and international, who requested the implementation of an ESIA. In the absence of any official National Guidelines, the LHWP applied the Operational Directives of the World Bank (WB) EIA Guidelines (for further details refer to chapter 3).

6.2.1 Methods and procedures

The Mohale ESIA involved a number of studies specific to Phase 1B and drew extensively from the lessons learnt during the implementation of Phase 1A (LHDA, 1997).

The ESIA for Mohale Dam included a series of LHDA commissioned studies. These studies included baseline water quality studies, a Maloti Minnow conservation survey, biological baseline information studies, baseline epidemiology and medical services survey, a baseline archaeological survey, a social baseline study, resettlement and development surveys, as well as individual assessments for the major engineering components of the Project.

Socio-economic baseline data for the Mohale ESIA were collected by Mr. Tshabalala in 1993 and the findings were reported in 1994. These were further supplemented with data collected by Consult 4, a consultancy group made up of both South African and Lesotho consultants for the purposes of preparing the RDAP.

To develop the overall ESIA, the social and environmental impacts were examined through the individual components of the Project. These components comprised the Mohale Dam, Mohale tunnel, Matsoku diversion, infrastructure (main access roads, rural access roads, transmissions network, communication network), and resettlement and development. The examination of these components included the impacts that would occur at different stages of the Project. These stages included pre-construction, construction, operation, and decommissioning. This approach was adopted for two main reasons; (i) the individual components of the project were previously subjected to an environmental analysis and, in several cases, these were in the form of EIAs; and (ii) it was easier to design, conduct and focus task working groups around a particular project component. (LHDA, 1997)

Four task working groups were established to discuss the identified project impacts, levels of significance and associated mitigation measures. Each task group comprised three LHDA officers, a representative from the NGO community, and the National Environmental Secretariat. Important Environmental Components (IECs) were identified for each of the Project components. These identified components were essential for maintaining the integrity of the ecosystem and the socio-economic fabric of the area. IECs were perceived as being important, either in a positive or a negative sense. Seventy-nine IECs were identified, of which 36 were socio-economic IECs. During the preparation of the ESIA some of the IECs were grouped together, while some were erased and others added. (LHDA, 1997) The socio-economic IECs are listed in Table 6-1.

Table 6-1: A list of the socio-economic IECs

No.	Socio-economic IEC	Management Responsible
1. Existing communities		
1.	Housing	LHDA
2.	Village infrastructure	LHDA
3.	Land tenure	Village Chiefs and Development Councils
2. Livelihood and subsistence		
4.	Agriculture based	Ministry of Agriculture (MOA)
5.	Migrant labour	Mineworkers Union and local recruiting agencies
6.	Informal sector	N/A
7.	Commercial ventures	N/A
8.	Short term employment	LHDA
9.	Tourism related employment	Ministry of Tourism, together with the parastatal and the Lesotho Tourist Board
10.	Food security	MOA

No.	Socio-economic IEC	Management Responsible
3. Infrastructure		
11.	Roads and bridges	Ministry of Works
12.	Schools and clinics	Ministry of Education and Ministry of Health
13.	Communications	LHDA and Lesotho Telecommunications Corporation
4. Energy		
14.	Biomass fuels	Department Councils, MOA
15.	Fossil fuels	N/A
16.	Electrical and other energy sources	Ministry of Works, Lesotho Electricity Commission, Department of energy within the Ministry of Natural Resources
5. Cultural practices		
17.	Cultural identity	Community of family unit
18.	Community social interactions	Community of family unit
19.	Family social interactions	Community of family unit
20.	Traditional activities	N/A
21.	Gender issues	N/A
6. Education		
22.	Literacy and numeracy	Ministry of Education
23.	School attendance	Ministry of Education
24.	Adult education/skills training	Ministry of Education, LHDA
7. Health		
25.	Occupational health	Ministry of Labour
26.	Nutrition	Ministry of Health
27.	Sexually transmitted diseases	Ministry of Health and LHDA with promotional campaigns for STDs awareness, free condoms etc.
28.	Substance abuse	Ministry of Health
29.	Communicable disease	Ministry of Health
30.	Trauma/accidents	LHDA must ensure proper safety precautions and public awareness
31.	Mental health	Ministry of Health, LHDA
32.	Respiratory diseases	Ministry of Health, LHDA
8. Access and communications		
33.	Access	Ministry of Works, LHDA
34.	Communications	Ministry of Posts and Telecommunications, Lesotho Telecommunications Corporation
9. Heritage Resources		
35.	Archaeological sites	Ministry of Culture
36.	Aesthetics	Ministry of Tourism, Sport and Culture, Lesotho Tourist Board and Ministry of Natural Resources

(Source: LHDA, EIS Report, 1997)

Each IEC was scored according to five assessment criteria: duration, scale (area extent), severity (including irreversibility) and certainty (of occurrence). A description of each of the criteria is provided in Table 6-2.

Table 6-2: Description of rating criteria

Criteria	Ratings				
Duration	**short:** construction phase only; up to 7 years	**medium:** 7-20 years	**long (permanent):** for the duration of the		

			Project's existence		
Scale (area extent)	**site (local):** within close range of a specified component or activity	**catchment:** within the drainage area of the Senqunyane River	**regional:** within a specified and well-defined area within the boundaries of Lesotho	**national:** country wide	**international:** of concern to other countries
Severity	**low:** small changes, possibly measurable	**moderate:** measurable loses, or system disruption; system able to continue without mitigation	**high:** substantial loses or system disruption: impact is irreversible	**very high:** major loses or systems disruption; system unable to function without mitigation or major compensation	
Certainty	**possible:** probability of impact occurrence judged to be less than 50%	**probable:** probability of impact occurrence judged to be more than 50%	**definite:** no doubt that impact will occur		
Impact significance	The level of significance is determined by adding the individual values for each of the impact criteria.				

(Source: LHDA, EIS Report, 1997)

Each criteria was given a numerical rating. These rating are indicated in Table 6-3.

Table 6-3: Scoring system for determining significance of impacts

Criteria	Ratings				
Duration	**short** 1	**medium** 3	**long** 5		
Scale (area extent)	**site** 1	**catchment** 2	**regional** 3	**national** 4	**international** 5
Severity	**low** 1	**moderate** 2	**high** 3	**very high** 4	
Certainty	**possible** 1	**probable** 2	**definite** 3		
Impact significance	**low** < 7	**medium** 7-11	**high** 12-15	**Very high** > 15	

(Source: LHDA, EIS Report, 1997)

Overall scores for each IEC naturally varied according to the Project component. However, a majority of the IECs were given a 'high' impact rating, while one IEC (Sexually Transmitted Diseases) was given a 'very high' impact rating. Only three impacts (land tenure, migrant labour and fossil fuels) were given a 'nil' impact rating, while two IECs were considered low impacts and eight were considered moderate impacts. A summary of the of the socio-economic IEC components is provided in Table 6-4. For a full list refer to the LHDA EIS Report (1997).

Table 6-4: A summary of the IEC impacts ratings

Socio-economic IECs	Ratings				
	Nil	**Low**	**Moderate**	**High**	**Very high**
Housing				x	
Village infrastructure		x			

Socio-economic IECs	Ratings				
	Nil	Low	Moderate	High	Very high
Land tenure	x				
Agriculture based livelihood				x	
Migrant labour	x				
Informal sector				x	
Short term employment			x		
Food security				x	
Biomass fuels				x	
Fossil fuels	x				
Cultural identity				x	
Community social interactions				x	
Family social interactions		x			
Traditional activities			x		
Gender issues			x		
Schools			x		
Clinics			x		
Occupational health			x		
Public safety			x		
Nutrition				x	
STDs					x
Substance abuse			x		
Other health problems				x	
Archaeological sites				x	
Aesthetics				x	
Other cultural resources				x	

(Source: LHDA, EIS Report, 1997)

Some of the identified IEC impacts, namely commercial ventures, energy, education and communication were not rated. No explanation is provided for this in the EIS, it is only assumed that data regarding these IECs were inconclusive.

6.3 Identified positive and negative project impacts

From the IEC ratings, a number of critical positive and negative impacts were identified. A total of 42 impacts were identified, which comprised 20 positive impacts and 22 negative impacts. The positive impacts are listed in Table 6-5, while the negative impacts are listed in Table 6-6.

Table 6-5: Summary of the positive social impacts predicted in the EIS report for Mohale Dam

Positive impacts	
Job creation	
1.	• Job creation associated with the various construction components. The Project will generate approximately 2 200 jobs for several years amounting to a total of 10 000 jobs.
Increased income	
2.	• Increased household income as a result of increased employment.
Training and skills development	
3.	• Training and skills transferral to allow locals to obtain employment after construction • The introduction of new skills into the area.
Stimulate subsidiary business	
4.	• Development of secondary economic activities (formal and informal) providing jobs and increasing household incomes.
Increased tourism opportunities	
5.	• Development of tourism as a result of improved infrastructure and dam and reservoir features.
Electrification and telecommunications	
7.	• The availability of electrical power and telecommunications systems.
Reduced seasonal flooding	
8.	• Decreased agricultural field damage from reduced seasonal flooding of the Senqunyane and Senqu Rivers.
Improved water sources	
9.	• Greater access to water sources and improved water supply for the people in the Mohale area.
Improved medical facilities	
10.	• Improved access to medical facilities, markets, educational facilities and social functions.
Improved access	
11.	• Improved access and communications.
Improved transportation	
12.	• Improved roads will provide improved transportation and safer.
Improved economic development	
13.	• Economic development will occur along the route of the Maseru bypass.
Improved institutional capacity	
14.	• Local institutional and organisational capacity is improved through the involvement of elected individuals in public participation.
Improved village services	
15.	• General improvement of village services i.e. clinic, schools, community centre and grain storage. During Phase 1B area, 7 Foothill schools and 8 Highland schools were upgraded (World Bank, 2005).
16.	• Police health workers and other Government employees will be able to carry out their work with greater effectiveness and efficiency
National economic growth	
17.	• Lesotho will gain monetarily from the sale of Phase 1B water by some R55 million annually in 1995 prices (about 1.5% of 1995 GDP).
18.	• Through the 'Muela hydro project, the generated power will provide the country with a degree of energy independence from South Africa. Hydropower benefits from Phase 1B will approximate R12.5 million annually (in 1995 prices).
International benefits	
19.	• South Africa will benefit significantly from Phase 1B, as it will increase the delivery of water to the Vaal thereby alleviating current and future water shortages.
Improved public transport	
20.	• Public transport in the area will improve.

(Source: LHDA, EIS Report, 1997)

Table 6-6: Summary of the negative social impacts predicted in the EIS report for Mohale Dam

Negative impacts
1. Livelihood and subsistence
Villages inundated will lose a large portion of their livelihoods. The losses are permanent and serious to those who rely on the resources for their livelihood and subsistence.
2. Housing and village infrastructure
People will lose houses and village infrastructure as a result of the Project.
3. Cultural identity
The abandonment of traditional cultures and lifestyles due to employment and the increased reliance on cash.
4. Community social interaction
Social alienation caused from the reservoir isolating villages from one another making it difficult to continue social interactions.
5. Land tenure
Relocation of people within the Project Area may lead to cultivation of unsuitable sites for subsistence crops.
6. Biomass fuels
Increased demand for biomass fuel in resettled areas and host communities.
7. Short term employment
Dependence on temporary employment will create dependence on cash and a lifestyle that will be difficult to abandon.
8. Informal sector
The informal sector would expand at all construction sites as outside construction workers migrate to the area this could result in commercial sex which can affect family moral values and spread STDs. This could also result in the increased sale of beer and other alcohol which could lead to subsistence abuse, spousal abuse, fighting and injuries.
9. Schools and clinics
An increase in the population will place greater pressure on local services resulting in a temporary decrease in the quality of these services (i.e. clinics).
10. Food security
The most immediate consequence of the loss of arable land will be a reduction in food security.
11. Family social structure
Loss of social support systems
12. Occupational health
Increase in occupational fatalities and injuries.
13. Nutrition
A decrease in nutritional levels with loss of vegetable gardens and fruit trees.
14. Sexually transmitted diseases
An influx of workers to the area might result in an increase in prostitution, STDs, HIV and AIDS, the sale of beer, alcoholism, drugs, and the disruption of families, increased conflict, injury and spousal abuse.
15. Substance abuse
Increased alcoholism and drug abuse can increase human vulnerabilities, damage livelihoods and destroy familial relationships, as well as, increase crime and physical abuse.
16. Other health problems
Increased noise and dust levels during the first five years of construction can be harmful to hearing, and to the respiratory system.
17. Gender
Due to unequal opportunities for employment, prostitution will increase thereby increasing the incidence of STDs and HIV and AIDS.
18. Aesthetics
Construction and operational stages will modify the visual character of the landscape which may affect some of the local communities and will certainly affect potential tourism to the area. Soil dumps and quarries would leave a permanent scar on the landscape.
19. Access

Negative impacts
With better roads access to the villages will be improved. This could lead to increased stock theft and the destruction of the local markets with the increased availability of cheaper goods.
20. Public safety
Increased road traffic will increase the incidence of accidents and road injuries.
21. Archaeological value
The loss of import archaeological sites
22. Other cultural resources
The disruption and exhumation of graves

(Source: LHDA, EIS Report, 1997)

These identified Project impacts were given priority consideration for the mitigation measures, which were detailed in the Environmental Action Plan (EAP), and more specifically the RDAP.

6.4 Environmental Action Plan

The EAP was prepared on the basis of the results of the ESIA. The purpose of the Plan was twofold: (i) to provide clear and timely actions that would mitigate and compensate for the potential Project impacts; and (ii) to provide details of other actions necessary to ensure the sustainable economic development and management of the resources of the Mohale catchment (LHDA, 1997).

The research primarily focused on the RDAP, which addressed a majority of the social impacts listed in Table 6-6 above. For further details on public health and the natural environment see the LHDA EAP of 1997.

6.5 The Resettlement and Development Action Plan

The RDAP was designed to accentuate the positive Project impacts and to mitigate the negative Project impacts associated with resettlement and the loss of livelihoods. The overall goal of the RDAP was to design and carry out the Resettlement and Development Implementation Programme for Mohale Dam. The main objective of the programme was guided by the LHWP Treaty (1986) and was defined as follows:

"*The standard of living of all people affected by the implementation of Phase 1B should not be compromised and where possible improved" (LHDA, 1997).*

The purpose of the programme was to plan, formulate and implement the following activities (LHDA, 1997):

- Maintain, or better the welfare of households affected by Phase 1B, and
- Provide adequately for the host communities affected by resettlement.

As such the compensation, resettlement and development programmes of Phase 1B were supposed to ensure that the living standards of all PAP did not deteriorate, and where possible, were improved.

6.6 Mohale Dam resettlement

The construction of Mohale Dam resulted in the displacement and resettlement of a number of villages in the Mohale Area (refer to Figure 6-1). These included the villages of Tsapane, Maetsisa,

Ha Ralifate and Mamokoluoa. Another eight villages were situated dangerously near the reservoir (refer to Table 6-7). These villages (inundated or partially inundated) accommodated 136 households containing 680 people. Villages that were dangerously located to the full supply level accommodated 111 households with a total population of 630. The other eight villages were identified as being most at risk from the construction, these included 290 households at an estimated population of 1 595. (Tshabalala, 1993)

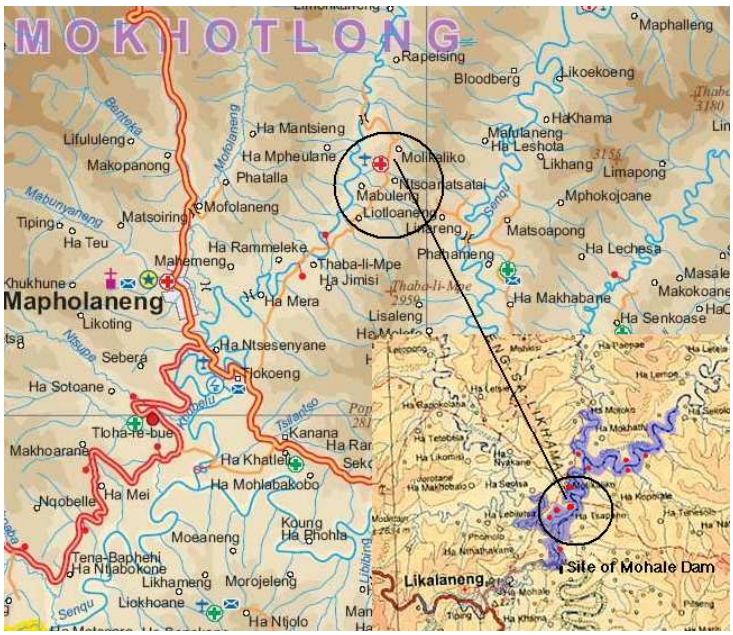


Figure 6-1: Locality map of project affected villages

The inundation of Mohale Dam resulted in the reduction of total households in the area by 15 percent, affecting 2 905 people in 13 villages (Tshabala, 1993). In addition to these thirteen villages there were another 62 villages that lost a total of 2 615 fields. As such a total of 75 villages were affected by the construction of Mohale Dam, which amounted to a total population of 7 436 Basotho living in 1 483 households (LHDA, 1997). Table 6-7 below lists the affected villages, the total number of households, people, fields and affected fields resulting from the construction of Mohale Dam.

Table 6-7: A list of the villages in the Mohale Project Area

No.	Village	No. of households	Total population	Total Number of fields	No. of affected fields
Villages to be inundated					
1.	Ha Tsapane	24	149	70	67
2.	Maetsisa	26	135	53	48
3.	Ha Ralifate	11	53	30	16
4.	'Mamokoluoa	7	44	20	17
	TOTAL	**68**	**381**	**173**	**148**
Villages partly inundated					
5.	Ha Seotsa	40	210	109	101
	TOTAL	**40**	**210**	**109**	**101**
Villages dangerously located					
6.	Ha Phoofolo	14	89	37	35

No.	Village	No. of households	Total population	Total Number of fields	No. of affected fields
7.	Ha Mokhathi	45	240	104	36
8.	Matebeleng	12	78	30	28
9.	Moeling	3	22	8	4
10.	Ha Lekhera	3	29	9	2
11.	Limapong	21	104	62	40
12.	Khamolane	14	83	36	18
13.	Letsatseng	12	81	36	12
	TOTAL	**124**	**726**	**322**	**175**
Mohale Project Area					
14.	Ponts'eng	23	142	50	31
15.	Ha Nyakane	43	269	134	48
16.	Ha Likomisi	26	142	66	37
17.	Sehlabaneng	15	90	34	0
18.	Ha 'Matlapu	19	83	51	16
19.	Ha Mphakho	17	97	44	19
20.	Ha Matsoai	6	32	17	5
21.	Ha Moshoantle	5	34	15	0
22.	Ha Tholoana	4	25	16	4
23.	Ha Sakia	6	27	20	3
24.	Ha Thaba Bosiu	18	102	48	0
25.	Matlakeng	5	27	13	3
26.	Ha Rapokolana	32	207	74	0
27.	Sosa	12	90	26	0
28.	Tetebela	17	79	34	1
29.	Likhutlong	8	34	19	0
30.	Ha Lebiletsa	8	48	33	15
31.	Phomolo	17	109	47	27
32.	Seteisheneng	15	94	45	17
33.	Matsiring	12	42	38	6
34.	Ha Nthakhane	17	112	38	13
35.	Ha Takatso	23	137	61	48
36.	Ha Motoko	35	199	98	41
37.	Ha Paepae	26	158	59	7
38.	Ha Khojane	24	160	82	2
39.	Monts'i	25	143	82	37
40.	Ha Lempe	22	117	81	7
41.	Sankong	17	93	37	19
42.	Moqobokoane	15	96	42	5
43.	Ha Raloti	11	50	32	8
44.	Ha Letele	9	53	19	1
45.	Ha Nteso	7	35	18	8
46.	Ha Sekolopata	22	152	94	43
47.	Ha Kokolia	11	56	37	18
48.	Ha Mokoenehi	7	43	23	11
49.	Ha Mohale	57	303	103	50
50.	Boits'ireletso	22	109	48	11
51.	Ha Teri	16	95	27	9
52.	Sekokoaneng	12	71	32	8
53.	Ha Piti	4	29	11	3
54.	Mafotholeng	17	89	32	8
55.	Ha Mohlabane	8	57	9	9
56.	Ha Motloang	23	105	41	0
57.	Ha Moholobela	12	71	12	0
58.	Tiping	63	334	62	4
59.	Mananeng	21	115	25	0
60.	Ha Ramohope	18	86	39	2
61.	Sethamahane	15	84	25	1

No.	Village	No. of households	Total population	Total Number of fields	No. of affected fields
62.	Mahooaneng	10	62	18	0
63.	Khoshane	7	49	18	0
64.	Ha 'Mofa	5	27	12	0
65.	Lihloaleng	3	8	9	0
66.	Ha Makopi	2	10	2	0
67.	Ha Dinizulu	14	82	50	4
68.	Masaleng	13	63	31	10
69.	Ha neo	10	68	35	0
70.	Khubetsoana	8	52	27	0
71.	Ha Ts'iu	87	423	167	40
72.	Ha Ts'iu, Sekoting	8	36	11	1
73.	Ha Koporale	40	227	100	34
74.	Ha Rantsatsi	10	45	23	5
75.	Ha Kolotsane	7	42	19	7
	TOTAL	**1319**	**6710**	**2615**	**706**
	GRAND TOTAL	**1483**	**7436**	**3219**	**1130**

Mohale resettlement took place in three stages (refer to Table 6-8). Stage 1 included 85 households affected by the construction activities associated with the Mohale Dam and the tunnel (LHDA, 1997). Stage 2 comprised 143 households including those primarily affected by dam impoundment (LHDA, 1997). Stages 2 resettlement was completed in March 2005 (World Bank, 2005). Stage 3 resettlement included a total of 325 households. Of these 325 households a total of 65 were eligible for voluntary resettlement (LHDA, 1997) on the basis that they lost over 50% of their arable land. Stage 3 was completed in April 2006 (World Bank, 2005).

From Table 6-8 it is evident that a majority of the affected households were resettled rather than relocated. Unlike Phase 1A (Katse Dam), Phase 1B (Mohale Dam) allowed affected households to choose their preferred resettlement location. These resettlement options included resettlement to distant areas (the foothills and the lowlands) and relocation to villages in close proximity to the Dam (World Bank, 2005). Table 6-8 outlines the number of houses 'relocated'[17], 'resettled'[18], possibly resettled and compensated during three Project phases, namely preconstruction, pre-inundation and post-inundation.

Table 6-8: Household relocation and resettlement

Implementation Stage	Stage 1 Preconstruction	Stage 2 Pre-inundation	Stage 3 post-inundation	Grand Total
Households relocated	44	52	0	96
Households resettled	41	91	4	136

[17] "Relocated" refers to households moving up-slope, remaining in the Scheme Area, and under the jurisdiction of the same Area Chief.

[18] "Resettled" refers to households moving out of the Scheme Area, mainly to the lowlands, and away from the jurisdiction of their present Area Chief.

Possible resettlement	0	0	71	71
Compensation only	0	0	277	277
Total	**85**	**143**	**352**	**580**

During public consultation a majority (51%) of the participants stated that they would prefer to resettle to the Lowlands, however the Foothills provided the most popular resettlement destination (53%). The preferred resettlement destinations comprised: Ha Ts'iu, Ha Koporale, Ha Rapokolama, Ha Mohale, the Foothills area, other Lowland areas and Maseru (World Bank, 2005). The Foothills areas included: Ha Tsapane, Ha Pilone/Ha Ratau, Ha Nts'I, Machache, Ha Makotoko and a group of other scattered villages (World Bank, 2005).

6.7 Mohale Dam Compensation

In keeping with the Compensation Policy (1997), households in the Project Area were compensated for the loss of physical structures. These included houses, kraals, schools, toilets and graves. Households were also compensated for the loss of arable land and for the loss of communal assets, which included grazing land, medicinal planes, brushwood fuel, wild vegetables and useful grasses. Added to this, resettled households were given a disturbance allowance for the inconvenience caused by resettlement. Compensation for these losses was either in the form of cash (lump-sum or annual), or in the form of grain (in-kind), while compensation for the loss of housing and land was either in the form of an equivalent physical replacement (i.e. land-for-land) or in the form of cash compensation. The replacement of dwellings was either in brick form of equal or of larger size then the original dwellings (World Bank, 2005).

From Table 6-8 it is evident that some houses were not resettled or relocated but rather given monetary compensation. No data is available on the number of households and the compensation options that were selected. In the socio-economic baseline study (1993) it is however stated that replacement land was considered the most important form of compensation by the majority (53.4%) of the respondents. This was followed by cash compensation (22%), while only 15% of the respondents considered grain payments as the preferred form of compensation (Thabalala, 1993). Amongst the interviewed households, all respondents (100%) were given monetary compensation in the form of either an annual or lump sum payment. This was even though a vast majority of the respondents would have preferred to receive replacement land (98%).

6.8 Mohale Livelihood Restoration Programmes

According to the EIS, the livelihood restoration programme was regarded as an integral component of the total compensation process (LHDA, 1997). The livelihood restoration programme targeted affected households, host communities, those remaining in the Scheme Area, and the whole population of the region in which the Project was located (LHDA, 1997). Some of the primary infrastructural developments included building roads, the expansion of the communication network, and the refurbishment of the schools, community centres, clinics and local government offices, as well as an extension of the Water and Sanitation Programme (WATSAN) to all villages in the Scheme Area.

With regards to agriculture two development centres were established. One development centre was

established at Ha Mohale, while another was established at Ha Rapokoloane in the Foothills area. These centres were built so as to provide training courses in farming techniques and inputs for affected communities (LHDA, 1997). In addition to these centres, the LHDA explored avenues to implement a sound forestry programme that would increase the availability of trees. This programme was supported by the establishment of energy information centres, which sought to provide advice and improve the availability of fuel. Other areas of interest included tourism and alternative sources of income and employment. These plans included the provision of micro-finance and training. Other livelihood restoration programmes included a broad range of agricultural projects that aimed to increase crop, livestock and fish production. (LHDA, 1997)

In the 1993 household survey preference amongst affected populations on income generation activities showed a wide range of activities. These activities ranged from agricultural production to agribusiness, rural production to formal business, and from transport to real estate. The single largest interest was in retail (shop/café) followed by real estate (flats for rental). Of the interviewed households 17% showed an interest in agriculture and rural production activities. The livestock sub-sector, in the form of dairy and poultry, was surprising shown the lowest interest (8%), while the second lowest interest was shown in handicrafts and knitting/sewing (4%). (Tshabalala, 1993)

6.9 Public Participation

According to the EIS (1997) each of the Project components, for which an EIA was prepared, involved the participation of the local community. According to the ESIA (1997) this was in the form of large public meetings '*imbizo*', which were well attended by men and women for the affected villages. Separate workshop meetings were held amongst academics, NGO groups, civic organisations and government officials. Apparently the opinions and perceptions raised by the participants provided valuable input to understanding and rating the IECs.

The EIS does discuss each IEC in terms of the participants' perceptions and their views on the remedial measures. Many of the issues raised were those that participants were aware of from Phase 1A. Table 6-9 provides a summary of the issues raised by the participants during the public consultation meetings.

These concerns were raised by the following stakeholders; villagers from 19 villages in the Mohale Area, environmental/conservation groups, academics, government officials, road users/residents, tourist bodies and community service groups. The issues raised by participants concerning compensation, resettlement and livelihood restoration provide the main focus for this research.

Table 6-9: A summary of issues raised by participants

Issue	Concerns
Resettlement	• LHDA has imposed the decisions on the people • Interference with cultural norms and practices, as well as religious sites • Fear demographic and social changes • Concerned with crime and stock theft • Adversely affect established local informal cash economy • Result in social pathologies; murder, theft, prostitution, fighting, family disputes and alcoholism
Compensation	• Loss of productive land in the mountain area • 15 year grain compensation not adequate • Compensation payments too small

Issue	Concerns
	• Compensation time delay too long • LHDA uses dishonest approaches to compensation • Unaware of correct procedure for complaints regarding compensation • Communication with LHDA is poor • Compensation implementation is a potential problem • Compensation must be discussed before construction begins • Provide compensation for the loss of springs and graves • Unfulfilled promises • Cash compensation for land is not adequate; other and development opportunities are also required
Livelihood restoration	• Believed Project will provide jobs • Telecommunications and electricity access is an advantage • LHDA does not promote the use of local labour • Access to water is a mixed issue • Weir good source of drinking water during draughts • Meaningful employment and relevant training for rural communities to take part in the Project • Want weir stocked with fish • Improved agriculture including woodlots and livestock

During the socio-economic baseline study (Tshabalala, 1993) very few positive impacts were mentioned by the participants. These included; employment (54.3%), clean water (32.3%) and roads (29.4%). When asked about their views of the dam, just over 45% of the residents living in the area had a negative attitude towards the dam compared to 38% who approved of the dam. The most negative responses related to the loss of agricultural land, the inundation of homesteads and places of birth. Other important concerns included the loss of access to traditional resources, and the social problems that could result with an influx of outsiders to the Project Area (LHDA, 1997). Overall the most common concern raised by participants was the compensation required for any losses incurred, and the desire to gain employment created by the Project (LHDA, 1997).

In addition to the participation carried out during the socio-economic survey and the Project component workshops, two additional workshops were held on the first two drafts of the ESIA (LHDA, 1997). The initial draft was presented by the LHDA and the NES, which provided a technical support through UNESCO/UNDP financing. Inputs from the workshop, as well as, inputs from the WB lead to the preparation of the final ESIA. At the second workshop the draft final ESIA was presented to a wider audience. The participants at this workshop included the GOL, NGOs and elected representatives of the villages affected by the Project. (LHDA, 1997)

According to the EIS, input from these participants was used to prepare the final ESIA. A summary of the ESIA was translated into Sesotho and distributed to people in affected areas. Discussions were held on the basis of this summary and outcomes from these discussions provided input to the draft Environmental Action Plan (EAP). Added to this, the EIS states that these workshops were further supported by a public consultation strategy that established an Area Liaison Committees (ALCs). This committee comprised elected community member and leaders within the affected villages (LHDA, 1997).

6.9.1 Public participation organisational structure

The organisational structure for community participation was set out in LHDA's Community Participation Strategy (CPS). It comprised two key elements (LHDA, 1997):

- Area liaison Committees (ALCs) and a Combined Area Liaison Committee (CALC), which were established to facilitate the structured and collective participation of affected populations in resettlement and development planning; and

- A system of Community Liaison Assistants (CLAs), which were supervised by a Community Liaison Coordinator (CLC) that supported affected individuals, households, institutions and organisations.

The ALCs comprised two representatives from each of the villages, plus area headmen and Village Development Council chairpersons. The seven existing ALCs were located at Ha Mohale, Ponts'eng, Ha Tspane, Ha Mokhathi, Kokolia, Ha Koporale, and Ha Ts'iu.

The CALC comprised four representatives from each of the ALCs, area chiefs/headmen, Village Development Council headmen and a DPE Committee member. Their primary responsibilities included (LHDA, 1997):

- Promoting community participation in general;

- Providing support to the community participation officers in the field;

- Communicating with the local NGOs in the field; and

- Designing community based implementation models (i.e. Highland trusts).

The CPS also included a Project Information Office (PLO) at Mohale where grievances could be raised. The PLO was implemented between August 1995 and December 1996, and continued to exist throughout resettlement implementation, which started in January 1997. In April 1997 a Compensation and Resettlement Task Team (CRTT) was created. Its responsibilities included (LHDA, 1997):

- Verifying and registering assets;

- Assisting with the replacement residential site selection;

- Preparing income restoration plans; and

- Conducting logistical arrangements for resettlement.

The CPS, along with the CRTT, aimed to ensure the successful implementation of the RDAP. However, if the CPS and the CRTT were implemented successfully, it can be argued that many of the negative social impacts resulting from the construction of Mohale Dam would have been mitigated. This would have resulted in improved livelihoods amongst PAP. It would have also resulted in PAP feeling positive about resettlement, compensation and the resultant development programmes.

However, many PAP complain about the failure of resettlement, compensation and the livelihood restorations programmes. As such some would argue that the CPS and the CRTT were not effectively implemented. If this is the case, then the implementation of the RDAP, which relies

extensively on open, free and fair public participation, was compromised. In reality some would therefore argue that PAP are now left worse off due to the construction of Mohale Dam (Bond, 2002, Hoover, 2001, IRN, 2008). If this is the case then Phase 1B of the LHWP failed to ensure that "[t]*he standard of living of all people affected by the implementation of Phase 1B should not be compromised and where possible improved" (LHDA, 1997).*

By not achieving the overall Project goal, the development effectiveness of the Project and therefore the ESIA is compromised. In order to determine the development effectiveness of the ESIA, this requires an assessment of the *perceived* impacts of Mohale Dam on project affected communities and households. This is addressed in chapter 7.

6.10 Conclusion

The chapter provided background information on the Mohale ESIA. It included a description of the ESIA assessment methods, the identified positive and negative social impacts, and the resultant mitigation strategies contained within the Resettlement and Development Action Plan and the Community Participation Strategy. This information is critical in providing a descriptive overview of the Mohale ESIA process. By understanding the ESIA process, such background information can assist with interpreting data gathered during in-depth interviews with key informants and affected community members.

7 Case studies

7.1 Introduction

Twenty-three households with an estimated population of about 115 people were interviewed during this study. Overall there were proportionately more females (57%) than males interviewed. Many of these households were female headed households (67%). A large proportion of the respondents fell between the ages of 35 to 65 years old. A majority of these respondents held no specific occupation other then subsistence farming. Interviews took place in three villages, which represented three diverse geographical areas. These geographical areas included the Highlands (Ha Mohale), the Foothills (Ha Nazareth) and the Lowlands (Ha Thaba Bosiu).

Primary data was collected through in-depth interviews using a standardised interview guideline (see Appendix 1). The interviews pursued the following themes; demographic information, housing, livelihoods, water and energy sources, sanitation facilities, health and other services, as well as views on resettlement, compensation, public participation and development.

The chapter analyses these interviews by assessing four critical social impacts. These impacts include resettlement, compensation, public participation and livelihood restoration. Using these interviews as a point of departure, the research is able to determine the development effectiveness of the Mohale ESIA. This occurred using a similar analytical process as that adopted by the WCD.

7.2 Ha Mohale

A total of eight households were interviewed in Ha Mohale of which a majority (62.5%) were female. These households are situated on the slopes above the Mohale Dam (refer to Picture 7-1). There are roughly 55 households living in Ha Mohale, with a population of approximately 275 people. The Village is under the custodian of Chief Mohale. A majority of these households lost their fields, gardens and grazing lands. As such all community members living in Ha Mohale are affected by the Project, “be it by a road that wasn’t there before, or by the provision of communal water supplies and VIP toilets” (HSRC, 2007: 2).



Picture 7-1: Village of Ha Mohale (2007)

7.2.1 Highland Area description

The Highlands of Lesotho, known as the Maluti, consist of an elevated and dissected plateau 2000m above sea level (LHDA, 1997). The general landscape exhibits a high to very high relief (refer to Picture 7-2). The climate of the Maluti is generally sub-humid. Winters are very cold and dry. Snow is very common. The harsh and difficult climate of the Maluti dramatically shapes the lives of the people who live there.



Picture 7-2: The Highlands of Lesotho

7.2.2 Socio-economic environment

All interviewed households had access to water in and around their villages. Other services like shops, schools, and clinics were also close and accessible by foot, horse or donkey. The study revealed that the majority of respondents used biomass, especially firewood and cow dung, to meet their daily energy requirements such as cooking. These energy sources were not always in close proximity to the communities. As a result, households walked between thirty minutes to three hours to access energy sources. The majority of households visited did have access to sanitation. All households had pit latrines, some of which were in very poor condition.

A large proportion of interviewed households mentioned having at least one source of monetary income. This ranged from cash compensation to remittances from distant relatives. Additionally, many of the respondents were able to grow agricultural products such as maize, beans, sorghum and peas, which were either used for household consumption or sold. Added to this, many households owned livestock. This included cattle, sheep, donkeys and chickens (refer to picture 7-3). Thus, households in Ha Mohale relied greatly on agriculture and livestock to secure their livelihoods.



Picture 7-3: A herd boy and his dog, Ha Mohale (2007)

7.2.3 Life after resettlement

A majority of the respondents lost fields, trees and access to medicinal plants. Although there was a sense of loss, a majority of the households interviewed felt that their lives had improved (57%). This was attributed to improved access to services (water, sanitation and electricity), the provision of facilities (i.e. clinics, police station and schools), medicinal gardens, and improved roads. Those that said life had not improved (43%) stated that their lives were still difficult and that none of the expectations of job creation and employment were met. Another reason included the loss of fields and a consistent income. Many stated that annual monetary compensation was ineffective in securing their livelihoods. "Compensation has been a nuisance. When we had fields we would harvest our fields on the six month and get money. Now this does not happen" (LS09). As a result, "when it (compensation) does come it finds us very hungry" (LS08). It is therefore not surprising that all respondents (100%) felt monetary compensation was ineffective in securing their livelihoods.

Many of the respondents interviewed stated that people spend their compensation on the "wrong things". In addition, a majority of the respondents blamed monetary compensation for causing conflict, increasing social inequalities and dramatically changing people's lives. It was felt by all the respondents (100%) that agricultural land should have been provided as a form of compensation instead of cash. "It was much better when I had my fields because we could handle our affairs much better but with this cash compensation it is very difficult" (LS10). "Money is not the same. Crops are tangible, more useful. Money easily goes out of your hands" (LS07).

When questioned on resettlement a majority (86%) of the respondents in Ha Mohale felt that resettlement was not a good thing. Reason given included; "it changes people lives too much" (LS08) and weakens people's relationships "because people move in different directions" (LS07). In addition many people felt they were not prepared for the impacts of Mohale Dam. "We are happy that we did not move to those brick houses in the low lands" (LS07) (refer to Picture 7-4).



Picture 7-4: Rondavels in Ha Mohale (2007)

A majority of the respondents felt the public consultation process was weak (75%). Even though one respondent stated that "everyone was included" (LS08), most respondents stated that the consultation process did not address their grievances and concerns. In addition it was felt that the public consultation process created expectations. "People were told that they will be happy. That they were going to get a lot of things, a lot of money" (LS10). "Before the dam there were a lot of promises, but these promises were not fulfilled. I don't believe that change will come. All the time we hear change, change, change, but there is no change" (LS10). As such some of the biggest concerns included:

- Not being paid compensation on time and without interest;
- The loss of family ties and social support systems; and
- The unfulfilled promises of money, employment and improved livelihoods.

It must however be noted that none of the respondents were concerned about compensation coming to an end. As a result, none of the respondents in Ha Mohale had made any provisions for securing future income. When questioned how their lives could be improved a majority of the respondents mentioned, the provision of electricity, improved housing and compensation.

7.2.4 Positive impacts

Respondents mentioned the following positive Project impacts:

- The provision and refurbishment of the clinics;
- Improved access to schooling;
- The provision of a police station;
- Improved roads;

- Potential electrification;
- Access to medicinal gardens; and
- Improved water and sanitation.

7.2.5 Negative impacts

Respondents mentioned the following negative Project impacts:

- Raised expectations of an improved life with access to jobs and employment;
- Late compensation;
- Loss of fields and a consistent stream of monetary income;
- Increased dependence on the Project;
- Increased social conflict and inequality; and
- The loss of social networks.

7.3 Ha Nazareth

A total of eight resettled households were interviewed in Ha Nazareth of which 50% were female. These households are situated in a rural village along the foothills of the Maluti Mountains located roughly 37 km West of Maseru (refer to Picture 7-5). There are an estimated 95 households living in Ha Nazareth, with a total population of approximately 500 people. The town is under the custodianship of Chief Mosotho.



Picture 7-5: Village of Ha Nazareth (2007)

A majority of the households interviewed voluntarily resettled to Ha Nazareth during Phase 3 of the resettlement process. Most of these households lost their fields, gardens and grazing lands.

In Ha Nazareth there is a primary and a secondary school. All of the resettled households live in a separate and isolated part of the village roughly a few hundred meters from the host village. There is no physical integration between the host and the resettled households, and the two exist as separate entities. Resettled households used their own water source, their own fields and have their own access road to the village. Although this does place less strain on the existing resources of the host village, many of the interviewed respondents felt that they were isolated from the host village. This will be further discussed in Section 7.3.3.

7.3.1 Foothills area description

The Foothills are defined as the area between the Lowlands and the Highlands and occupy an estimated area of about 4, 600 km^2 which lies between 1,800 and 2,000m above sea level and forms 15% of the total land area (refer to Picture 7-6). The Foothills consists of very fertile land that is associated with high agricultural productivity (Lesmet, 2008).



Picture 7-6: The foothills of Lesotho (2007)

7.3.2 Socio-economic environment

All interviewed households did not have access to clear water (refer to Picture 7-8). Other services like shops, schools, and clinics were accessible by foot. The study revealed that the majority of respondents used paraffin to meet their daily energy requirements such as cooking. These energy sources were not always affordable. The majority of households visited did have access to proper sanitation. All households had pit latrines, which were in a good condition.

A large proportion of interviewed households mentioned having at least one source of monetary income. This ranged from cash compensation to income from remittance and sharecropping with other resettled households. Many of the respondents complained that they were unable to plant

agricultural products such as maize due to the shortage of land. Many of the respondents decided to relocate to Ha Nazareth because they were promised access to land. “When we visited the village we saw lots of land for ploughing but now there is not enough land to plant maize’. Added to this a majority of the resettled households were not using their backyards to plant vegetables. Out of the 8 households interviewed only one household (12.5%) was using their backyard to plant vegetables. Thus, a majority (85.7%) of the households in Ha Nazareth relied on monetary compensation to secure their livelihoods.

7.3.3 Life after resettlement

Many of the respondents interviewed lost their fields, trees and access to communal resources like wood for fuel as a result of resettlement. Unlike in Ha Mohale, a majority of the households interviewed felt that their lives had deteriorated (87.5%). Only one female respondent felt her life had improved. The main reason she provided included; improved access to healthcare facilities, schools and transport, as well as, not being dependent on monetary compensation. This respondent was the only interviewed resettlee in Ha Nazareth who had planted vegetables in her backyard, which she sold to the community. From her monetary compensation she only took the accrued interest, and left the rest in the bank to grow.

“I want my money to grow. I am keeping it there because I have other forms of income that I am dependent on” (LS22). When asked why other people were not managing to improve their lives she said “people need to take charge of their own lives. They don’t do that they just fold their arms”.

Those that said life had not improved (87.5%) stated that their lives were very difficult now that they had lost their fields and were dependent on the compensation money. It was stated by many respondents that “the life here is so expensive. It is a life of money. It is very difficult down here because everything is money” (LS21). In addition to this it was stated that there was not enough land to plough. One respondent said “there is only misery here. Nothing good has come of the dam, I have no land. There is no place to plant” (LS17). Some respondents (25%) complained that the soil in the Foothills was not as fertile as the soil in the Highlands. If they farmed it would be very expensive as they would have to buy fertilizer.

Like in Ha Mohale, all respondents (100%) complained that the compensation was late. None of the respondents were satisfied with monetary compensation. They (87.5%) stated that it was too little, and often arrived when they were heavily in debt. “I have to borrow money in order to survive. When I receive my money I have to pay people and then I have nothing” (LS15). Another respondent stated “the compensation is not enough. It always finds me in debt” (LS20). Respondents also complained about monetary compensation destroying their relationships and increasing inequality amongst community members. “Our relationships are not as they used to be up in the mountains, now there is animosity and the inability to work together. When we had fields we used to work together to plough the fields, but ever since these people have money our relationships have fallen apart” (LS17).

Overall there was general consensus that fields would have been a better form of compensation. “There are many of us who would have preferred to have fields and not money and even though we are involved in sharecropping schemes sometimes the owners cheat us and of course the animals that we brought from the mountains died because there are not many fields for grazing” (LS17).

Respondents also mentioned an increase in crime. One respondent stated that "resettlement has made inequalities worse and the worst part is that the money they give us is attracting criminals. A lot of the times when we go to the bank to cash our cheques there are criminals waiting to attack us in the village. We are living here with a sense of insecurity" (LS22).

When questioned on resettlement a majority (87.5%) of the respondents in Ha Nazareth felt that resettlement was not a good thing. Even though most of the respondents decided to move to the Foothills so that they could be closer to services and facilities, many felt they were not prepared for the dramatic lifestyle changes. "No, I was not aware of the challenges that we were going to face" (LS22). Instead people were told that their lives would improve. "You know the information that they told us was that when we move down here our lives will be much better then up in the mountains. We were all expecting to lead the same lives we were living in the mountains. None of us knew that we would not be able to collect wood. There is no wood here, when you want to cook anything you must buy paraffin, which we are not used too" (LS15). Another respondent stated "I expected life to be the same as in the mountains where I had access to wood, where we had access to many things" (LS20). "I can say my life has deteriorated because there were a lot of things I used to access in the mountains that were essential for my survival that are not available here" (LS21). "The picture of resettlement that was painted by LHDA was rosy, but it has been a lie in many ways" (LS20).

Even though a majority of the respondents stated that during the public consultation process they were told that their lives would improve, most respondents (62.5%) were satisfied with the public consultation process. This was because they felt they were consulted and did attend a few public meetings. It must however be noted that many of the female respondents did not participate in the public consultation process. Most of the female respondents stated that their husbands attended the meetings and decided where they should resettle. "Most of the things were done by my husband who attended the meetings and chose this place. I did not even know this place" (LS15).

The respondents, who felt the public consultation process was weak (37.5%), stated that "the public consultation meetings were used to tell us many false promises (LS20). "We were promised quite a number of good things, but since we have arrived here only a handful of things have materialised, the rest of the things have not come about" (LS17). "They promised us that they would supply us with electricity and running water" (LS21). "They promised us bigger yards. They promised us that compensation would be big and that it would be on time" (LS22). "There were promises that they were going to assist with finances for schooling but that has now changed. There seems to be a break down in communication, false promises all the way…" (LS21). One of the main concerns in Ha Nazareth included having these promises fulfilled. The other main concern was the provision of water.

"We do not have water at all" (LS20). "We get water from the original village but people there break the taps so what we have tried to do is dig our own well like we used to do, but this is an open well and brings more problems of disease" (LS21) (refer to Picture 7-8). Other concerns included the provision of jobs and fields, as well as timely compensation and having relations with their host village improved.

Of the respondents, 67% felt that their relations with the host village were poor. “The relations are not friendly and warm. They attack us because they think we have money. Our animals have died because these people forbid us from using their veld. They forced us to graze our animals in the yard because they say that the land belongs to them” (LS18). Another respondent stated that “money was given to the existing village so that we could use their herbs, grazing fields and wood, which is used when there is a funeral, but every time there is a funeral we have to buy the wood. It is not fair because the Chief of the place has been given money so that everyone can have access to these resources. I feel that the resources are a privilege of the prior existing village” (LS21). Without access to communal assets this has increased their dependence on cash compensation.

The reliance on monetary compensation to secure their livelihoods is a serious concern given that none of the interviewed respondents were concerned about compensation coming to an end. Like in Ha Mohale, none of the respondents in Ha Nazareth were making any provisions for securing their future income. One of the respondents stated that “people must be compensated for the life of that dam. This lady, her son, his son and so forth. Descendant of my family had those fields for many generations before I was born so that is why definitely I do not understand this matter of 50 years. That regulation must be revised. As long as that dam is living their people must live. If we say that after 50 years this thing must stop where are they going to plough for feeding the kids. I don’t go for that. I have to silence it” (LS15).

When questioned how their lives could be improved a majority of the respondents mentioned; the provision of water and a poultry project. They also mentioned stoves for cooking and heating during winter. Although people were mostly happy with their houses, one respondent said that she would support the LHDA building traditional huts (refer to Picture 7-7). When asked why she said “these houses are good, but they are difficult to keep clean and warm. Some people have built huts for cooking. I was happy with my home in the mountains” (LS17).



Picture 7-7: LHDA constructed house in Ha Nazareth (2007)

7.3.4 Positive impacts

Only three positive impacts were mentioned by respondents living in Ha Nazareth. These included:

- The provision of houses;
- The provision of toilets (see picture 7-7); and
- Improved access to transport, schools and healthcare facilities.

7.3.5 Negative impacts

Many negative impacts were highlighted, some of which, are similar to those mentioned in Ha Mohale:

- A lack of portable water for cooking and drinking (see Picture 7-8);



Picture 7-8: Spring in Ha Nazareth (2007)

- Raised expectations of an improved and better life;
- Destroyed social relationships and increased inequality;
- Late compensation;
- Loss of fields and a consistent stream of monetary income;
- Increased dependence on the Project; and
- The loss of social networks.

7.4 Ha Thaba Bosiu

A total of seven households were interviewed in Ha Thaba Bosiu of which a majority (71%) were female. These households are situated in a peri-urban town in the lowlands of Lesotho roughly 24 km East of Maseru (refer to Picture 7-9). There are an estimate 90 households living in Ha Thaba Bosiu, with a total population of approximately 450 people. The town is under the custodianship of

Chief Jobo. A majority of the households interviewed resettled to Ha Thaba Bosiu during Phase 1 of the resettlement process. Most of the households resettled to Ha Thaba Bosiu lost their entire homesteads, which included houses, trees, gardens, kraals, fields, and grazing lands.

Like in Ha Nazareth, a majority of the households resettled to a separate section of the host town. This area was a few hundred meters away from the main host village. Only one resettled household decided to relocate to an area in the centre of the host village. Unlike Ha Nazareth, the resettled households were given access to communal water, fields, wood and other sharecropping and development opportunities.



Picture 7-9: The village of Ha Thaba Bosiu

7.4.1 Area description

The lowlands cover the western part of the country and occupy about 5,200 km^2 which is 17% of the total surface area. This region is a narrow strip of land extending at some places just 10km from the border to 60km at some places and it which lies between 1400m and 1,800m (refer to Picture 7-10). The northern and central lowlands are characterised by large deposits of rich volcanic soils, while the southern or border' lowlands are characterised by poor soils and low rainfall (Lesmet, 2008).

7.4.2 Socio-economic environment

All interviewed households had access to water. Although they reported water shortages during periods of droughts, households were still able to access two buckets of water per day (LS26). Other services like shops, schools, and clinics were very close-by and accessible by foot. The study revealed that the majority of respondents used paraffin to meet their daily energy requirements such as cooking. All households had pit latrines, which were in a good condition.

A large proportion of interviewed households mentioned having at least one source of monetary income. This ranged from cash compensation to remittances from distant relatives. Additionally, many of the respondents were able to grow agricultural products such as maize, beans, sorghum and

peas. This was mostly through sharecropping schemes with host and resettled households. The produce from farming was either used for household consumption or sold. Thus, households in Ha Thaba Bosiu relied on a mix of agricultural farming and cash to secure their livelihoods. None of the interviewed households mentioned owning livestock.



Picture 7-10: The lowlands of Lesotho (2007)

7.4.3 Life after resettlement

Unlike in Ha Nazareth, a majority of the households interviewed felt that their lives had improved (71%). Amongst these respondents interviewed only two respondents felt that their lives had deteriorated (29%). This was mainly attributed to the unfulfilled promises of the LHDA. “They (LHDA) did describe this wonderful life but this wonderful life has not materialised. The LHDA has not fulfilled their promises” (LS27). These promises included the provision of water nearby, the provision of electricity and the provision of communal resources like wood. He felt that none of these promises were being delivered, which has made his life difficult.

Of the 71% who felt their lives had improved, this was attributed to their desire to work the fields and their ability to plan. One respondent stated “some of us are very content but it depends if we want to work the fields” (LS23), while another respondent stated “there are reasons why people should be unhappy they have left their things up in the mountain but here if you cannot show that you are capable of working when people in the village invite you and say here are our fields come lets do sharecropping. If you don’t take part in that you will always be unhappy” (LS24).

This respondent feels that his success is mainly attributed to his ability to work the fields and invest his monetary compensation. “With the compensation money I built rental houses in Mazenod” (LS24). “My life has improved very much. I no longer depend on little things anymore. I have plenty of maize. My maize has increased. To make my investment go further I have decided to supply water to my rental houses in Mazenod so that tenants should not leave and go and look for a better place. They should see that this place is a very attractive place because it has got water. This presently helps me generate income so that I can send my children to school and to the doctor” (LS24).

When asked why he had managed to make a success when other had not. The respondent felt that "people themselves have to take charge of their lives". In addition people need to plan; "a lot of people don't know how to go about planning. My fields in the mountain were very big and I don't feel that compensation was enough but nevertheless I have taken that money and invested it to try make sure that it yields something but fundamentally if you don't really know how to go about making plans you will find yourself in serious problems" (LS24). In addition, he states that "people are very slow to adapt to change and some of them will try to compare themselves with people that had a lot of property up in the mountain. Instead of accepting their own situation they will always compare themselves with others and really fail" (LS24).

The attitude towards resettlement and compensation shared by this respondent, with that of the 'successful' resettlee in Ha Nazareth, is remarkable. Both this respondent and the resettlee in Ha Nazareth felt that people should not be solely reliant on cash compensation to secure their livelihoods. They also felt that people had to be proactive in order to benefit from resettlement and compensation. Both these respondents were actively involved in share-cropping schemes and had invested their cash compensation. These respondents were therefore dependent on a suite of livelihood strategies that included agricultural farming, vegetable growing and monetary income from investments. Added to this these respondents had also established relationships with the host community.



Picture 7-11: A resettled family living in Ha Thaba Bosiu (2007)

In an interview with the successful Ha Thaba Bosiu respondent it was advised that "if people are not humble or if they isolate themselves from the host community then there will be problems. But if you are good to your new neighbours then they will love you" (LS24). If there was any conflict it was usually because "some people were boasting and bragging about their houses and their compensation" (LS25).

Like in Ha Mohale and in Ha Nazareth, those who were unhappy with resettlement (29%) attributed this to the loss of their fields, insufficient compensation and their inability to adapt to a monetarised environment. Many of these respondents were heavily dependent on cash compensation to secure

their livelihoods. In addition, these respondents stated that their relations with the host community were poor. “This compensation that was given to the Chief for us to relocate here was supposed to be shared with the village but they are keeping the money for themselves, it is really not benefiting us. And I believe that they are squandering the money” (LS27).

Although some respondents in Ha Thaba Bosiu felt that the LHDA had not prepared them for change (29%), most of the respondents (71%) felt that the public participation process was fair and transparent. “Yes, I do feel the community had a voice in the decision-making. We were even brought to Ha Thaba Bosiu to meet the community and have a look at the place before moving here” (LS26). The one respondent who felt that the public participation was weak, stated that “not enough information was given. It was trickery all the way” (LS27).

Overall the interviewed respondents in Ha Thaba Bosiu felt that the resettlement and compensation process was successful (71%). Of these respondents, a majority were female (80%).

Generally women (85%) in all three areas were a lot more positive about resettlement and compensation then the men (20%). This is most probably due to men losing their fields and therefore a sense of their identity, while women gained improved access to water, schools, clinics, shops and other services. In an interview with a senior Sociology lecturer at the National University of Lesotho (NUL), it was stated that “it (resettlement) is more difficult for the men, particularly for the men to carry on playing their role normally. It (resettlement) disempowers the men. With the women it is better because they are still at home, they still have a cause and a role. They can still play the role of a woman, but unless this man finds a job it is now a problem when he stays at home. Traditionally we don’t see men hanging out at home. They are supposed to be out in the fields or entertaining themselves by following their animals, but now they are at home” (LS14). Therefore many more men (80%) were disgruntled with resettlement than women (20%). This however challenges the common idea that women are more vulnerable than men and are usually more adversely affected by resettlement and compensation. However this finding is inconclusive given that more women were interviewed then men.

The only real concern for respondents living in Thaba Bosiu was the lack of development programmes, which affected their communal development funds. “The development fund was supposed to be annual and now it was only given once. There is supposed to be a lot of money coming here for development, but because training started so late we cannot get the funds” (LS23). This was mainly attributed to the LHDA “always sending different people and they don’t know what programmes we have already agreed on so we have to start again. It is very confusing and causes long delays” (LS23). When questioned how their lives could be improved a majority of the respondents mentioned the provision of a piggery and a poultry project, as well as electricity.

Like Ha Nazareth, another concern included the provision of water. “The problem here is water. There is a shortage of water particularly when there is a drought, but back in the mountains water was never a problem” (LS25). It is rather surprising however that none of the respondents mentioned late compensation, when this was a major concern for respondents living in Ha Mohale and Ha Nazareth.

7.4.4 Positive impacts

The main positive impacts mentioned by the respondents in Ha Thaba Bosiu included:

- Improved access to schools,
- Improved access to healthcare facilities, and
- Close proximity to a local mill and surrounding shops.

7.4.5 Negative impacts

The main negative impact included:

- Water shortages during droughts.

7.5 Overview of the Project impacts

For purposes of this research, Project impacts are divided into four main sections which comprise compensation, resettlement, public participation and overall quality of life. The section integrates the theoretical underpinnings of the research and the data gathered during interviews with affected households and key informants. During this section the main findings of the research are identified and developed.

7.5.1 Compensation

Overall, monetary compensation was the weakest component of the Resettlement and Development Action Plan (RDAP). In both Ha Mohale and Ha Nazareth respondents complained that cash compensation was insufficient to secure livelihoods. This was mainly attributed to increased dependency on monetary income and the loss of alternative and multiple livelihood strategies, which included subsistence farming and livestock rearing. In an interview with a key informant it was stated that "they (resettlees) don't have farming anymore so this is a problem. Many… got cash from selling crops, and this money stayed in their pockets… in Ha Mohale they did not need to spend it on anything. When they were resettled to the foothills and the lowlands this all changed. Now they cannot get food from the land or from the animals. Many said that they don't know where this money is going. Before they know it, it is gone" (LS14).

However, despite the concerns of increased dependence on monetary compensation, reliance on a form of external monetary income (i.e. remittances) is not new to Lesotho. Since the mid 1900s people living in Lesotho have provided a labour reserve for the mines in South Africa. This led to the establishment of a well-developed migratory system, which indirectly promoted a culture of dependence on remittance. It is possible that this 'history of dependence' provided the impetus for PAP to effortlessly become dependent on cash compensation. Consequently, "people (resettlees) have become dependent on another migratory cycle" (LS03). As such, the LHDA should have tried to understand the local mechanisms of money operating within the Highland communities before designing the accompanying compensation strategies. This is critical in devising sustainable compensation strategies that led to self-reliance and independence. With this knowledge 'home grown' mitigation measures could have been developed that possibly placed greater emphasis on

multiple livelihood strategies, and not on monetary compensation. This assertion does however require further investigation, given that the research did not extensively address the issue of migratory labour in Lesotho.

Nearly all of the respondents interviewed, (96%) received annual compensation. Of these respondents, 68% viewed cash compensation negatively, while 73% would have preferred to receive lump sum payments. This was mainly attributed to the late arrival of the compensation, which usually found the respondents in debt. When LHDA was asked why annual cash compensation was late, it was stated that "this is one of the problems that we are experiencing but I think we have made some commitments to make sure that compensation does come on time. One of the serious problems that may delay the compensation is that compensation needs to be based on the current Consumer Price Index (CPI), which has to be released from the statistics department and at times that comes late… If it does happen to come late we must have some means to go back to the communities to inform them" (LS19).

Although lump sum compensation provides a possible alternative to annual compensation, this form of compensation might not be beneficial to Basotho communities who are not accustomed to handling large sums of money. "Many NGOs wanted the people to get once off payments. They wanted people to be given all their money at once. And we have had experience (GOL) with our miners who were coming from South Africa. Those ones who got their lump sums, they are worse off… At the moment there are no life skills to deal with large sums of money…" (LS06).

During the Phase 1B compensation process resettlees "were not given the life skills to handle such big money at one time. So in order to give somebody a lump sum you need to train the person. You need to sit down and advise the person appropriately. The person has to be in his right mind not in a confused state" (LS06). This training should also include coping with the new challenges introduced by a highly monetarised environment. "People need training to cope with the challenges of a new way of life, for example, how to handle money. I think programmes where people are trained to cope should be emphasized" (LS14). It must however be stressed that training is not the panacea for the ills associated with either annual or lump sum cash compensation. As such training could possibly deal with one aspect of the problem - learning how to handle large sums of money - but it is also a question of solely relying on cash compensation in a high risk environment where employment is low and there exists a lack of enterprising activity.

The low level of entrepreneurial activity amongst Highland communities in Lesotho is possibly associated with the local definitions of employment. "To her or to him working means to be employed by somebody. So for them to get money it means he must be employed by somebody. To change this attitude will take time" (LS16). Such definitions of employment do not promote entrepreneurial activity critical for the successful implementation of lump-sum compensation packages. As such it is this narrow understanding of employment that makes cash compensation, especially lump sum payments, a risky compensation package. In instances where there are no alternatives to cash compensation, PAP should be discouraged from perceiving cash compensation as a form of 'income' or as an alternative to their multiple livelihood strategies. Instead, cash compensation should be used as a safety net to assist households in adjusting to their new environments. This requires a RDAP that does not overemphasize cash compensation but rather promotes the development of multiple livelihood strategies that suit the needs of PAP.

Added to this, such an understanding of compensation could potentially ensure the continuation of 'normal' familial activities. "Traditionally we don't see men hanging out at home. They are supposed to be out in the fields or entertaining themselves by following their animals, but now they are at home. Some women said that this made them feel uncomfortable. They felt trapped. So normal familial relationships are turned upside down" (LS14). Using a gendered analysis, reliance on cash compensation is detrimental to the assigned roles of men and women. As such livelihood restoration programmes, which emphasize gender specific livelihood strategies, should be promoted to 'keep men entertained' and the family relations healthy. Added to this, the gender problems associated with monetary compensation are further accentuated by men being the primary recipients of compensation.

"Okay so after resettlement… men can drink from morning till tomorrow or 10 o'clock in the evening… Men at times are quite irresponsible. Some of them can even run away go to Maseru and some cannot even plough a small plot to make a vegetable" (LS16). As such cash compensation is often quickly depleted by liquor and conspicuous consumption. This reckless spending has disastrous effects on the food security of the household and the familial structure.

According to the WB's OP 4.12, land-based compensation is the preferred compensation strategy for subsistence communities like the Basotho Highlanders. However, due to land shortages in Lesotho, land-based compensation was not considered a sustainable option. In such circumstances the WB's OP 4.12 states that "non-land-based options built around opportunities for employment or self-employment should be provided in addition to cash compensation for land and other assets lost" (Para 11). Following these recommendations, Phase 1B should have provided PAP with development assistance in addition to compensation.

The sole reliance on cash compensation to restore livelihoods invariably results in PAP becoming dependent on project finance to secure their livelihoods. During Phase 1B 'compensation with development' was not emphasized and in the process the RDAP overemphasized resettlement and monetary compensation. This led to a number of PAP becoming dependent on Project finance as their main source of income. The objective of compensation should therefore be to promote sustainable development, independence and self-reliance. As such development should be at the centre of any future compensation programmes adopted by the LHWP.

7.5.2 Resettlement

With regards to resettlement, overall 65% of the respondents' perceived resettlement as a negative experience.[19] This was mainly attributed to many unfulfilled promises i.e. the provision of water in Ha Nazareth (see Figure 7-8). According to the IRN (2008), the resettlement process was traumatic and unnecessarily stressful. Resettlement sites were not ready prior to resettlement. In some

[19] This was even though respondents chose their preferred relocation sites. "Sometimes people chose a destination because they have a relative there or they have long standing ploughing arrangements because some people in the highlands have fields in the lowlands, they rent here or they sharecrop. So people would have a reason why they go to a place because of certain things" (LS06).

instances people were resettled to places without safe drinking water and in others, people faced overt hostility from their host communities (IRN, 2008).

In a research study conducted by LS14 in Ha Makotoko and Makhoakhoeng (2001), it was found that "there is a difference in resettlement experience in different topographical areas". "In a sense I think people's livelihoods changed primarily because their environment… on which their livelihoods were based changed. For example, people who were moved from Ha Mohale to Thaba Bisou they moved from an area where most of their livelihoods were based on natural resource use grazing and livestock. And when they came down it was a different situation. Hardly any grazing areas were available and if they were, it was already overgrazed" (LS03).

In this research study, it was found that households which resettled to Ha Nazareth (the Foothills) rather than to Ha Thaba Bosiu (the Lowlands) perceived resettlement more negatively. One would have assumed that resettling from the Highlands to the Lowlands would have presented more challenges. However, households that resettled to Ha Nazareth were better integrated with their host community then the households which resettled to the Foothills. Thus, it is not necessarily the geographical setting which affects the experience of resettlement but rather the relationships and integration between resettlees and their host communities. In this study it was therefore found that negative resettlement experiences were mainly attributed to poor relations with host communities, which increased their inability to adapt to new environments. This was especially evident in Ha Nazareth were a majority (87.5%) of the respondents interviewed perceived resettlement negatively. Of these respondents 67% attributed this to poor relations with the host community.

Like in many other resettlement programmes, Phase 1B did not address the intangible risks associated with resettlement. Even though households were provided with the opportunity to view the resettlement sites prior to resettlement, households were not encouraged to resettle as whole communities. According to Cernea (1996) social disarticulation is bigger in projects that disperse communities.

In the 'western' world households move freely from one suburb to another with relative ease. However, in western societies communal relations are of reduced significance, while in more traditional societies, like those found in Lesotho, communal ties are of absolute importance in securing livelihoods. "In rural areas people have support system of extended family that is permanent, when you move to a new locality you have to market yourself in order to survive" (LS04). Considering the importance of social networks amongst the Basotho, Phase 1B should not have dispersed villages and provided households with the choice to resettle as separate units.

"Unfortunately, this resettlement (Phase 1B) when it came up, it gave people a chance to get away from each other. And people who used to support each other, in most cases, decided to go different ways either because they realised they can now stand on their own, I now have my compensation and I can do whatever" (LS06). As such, many of the problems associated with resettlement during Phase 1B might have been avoided if households were encouraged to resettle in complete communities.

When interviewing a key informant it was stated that "when we engage in resettlement we ask people if they want to move individually or communally. Most of them want to move as a

community. We feel that this is better because it helps to have the community cohesiveness, because that is the support system. You cannot take people away from their support systems who understand them and know them. Most of the communities would, 90% of the time, have been moved as a whole not very far from their previous villages. We actually try to avoid what happened in the LHDA where people spilt up and you end up being in a community that is not as hospitable" (LS05).

Resettling people into host communities requires a culturally sensitive process. "It is good that people were given choices, but in terms of research of the areas that they have been given, people should have been given a chance to investigate things so that they could make better informed decisions. People were resettled and there were incidences where the host communities would not allow the resettlees to bury their dead in their graves" (LS04).

Bad relations amongst resettlees and their host communities were further exacerbated by the perceived wealth of resettled households. "Yes we acknowledge that host communities perceive them (resettlees) as having money but that is a perception. Sometimes the very same resettled will be going out with a lot money in their pockets after they receive their annual cash payments. Some of them will be boasting around and saying they have money, and they will drink. So yes there is a perception that they have lots of money and often this is caused by the actions of the resettlees in the village" (LS06).

When LHDA was asked to comment on the increased perceived inequality they responded by stating that "we realise the houses we constructed for people were better than the houses in the village, except for those people who were already rich, but they chose these houses" (LS06). "We held meetings with those that were to be resettled to choose, after choosing their destination we gave them the prototype plans to show them that these are the house we are going to build for you. You can choose between this new house and the traditional house. So we gave them choices (LS06).

In such circumstances, choice needs to be informed by risks. The LHDA did not consider the unintentional development impacts associated with constructing large, 'western' brick houses for Highland Basotho. In some instances this led to "people building rondavels next to their nice houses to duplicate their kitchens back at Mohale Dam. Many complained that their new houses were very cold in winter, so some built small weather friendly enclosures, which they lived in during the winter months. In other words they should have thought about not building such big structures" (LS06). It would seem that the decision to build brick houses, was not informed by the cultural practices of the Highland communities. Instead, one can assume that this decision was informed by 'western' definitions of development that included modern housing structures not suited to the local environment. "In future we (LHDA) will not provide resettlees with these new houses but will encourage communities to choose their traditional structures" (LS06).

Added to this the LHDA should have thought about the impact that these houses would have on the host communities. As such, studies should have been carried out in host communities to determine their levels of understanding and acceptance of resettled households. This process should have also sought to create greater equality between hosts and resettled households.

In some instances development benefits were only provided to resettled households and not to host communities. "Cash compensation or any other benefits will make them (resettlees) different. In some host communities there were promises of roads, water supply, but sometimes you find that

these benefits are channelled to the new village and do not benefit the old village" (LS14). In Ha Nazareth this was most pronounced. Resettlees thought that "they would be fully accommodated in the area by the host community, and many felt that they were not properly hosted by the community and the Chief. So there was the expectation that their normal life would continue; a life where you have one village instead of two villages" (LS14). Instead, interviewed resettlees in Ha Nazareth felt that they were not given equal access to communal assets. "They were also perceived as different. This raises the status of the resettlees and accentuates perceived inequalities" (LS14).

"This then alienates and creates hostility with the host community. So I think you need to have consultations between the received and the host communities and finding ways of how to integrate the one into the other in a way that does make the one stand out more…" (LS05). "The LHDA should get the resettlees and the hosts to come together to plan because now they are living together" (LS16). As a result, "the LHDA should have prepared the (host communities and) resettled households, psychologically and emotionally, because resettlement is an emotion issue that requires psychological preparation" (LS01). The process of psychological preparation should have occurred during the public consultation process.

7.5.3 Public consultation

Public consultation was perceived by 57% of the respondents as a positive experience in which they did actively participate in decision-making. It was generally felt however that communities were not adequately informed about how much their lives would change. Overall many participants complained that the public participation process raised expectations. "What actually happened was that the authorities came to the villages and conducted public gatherings and the people were just told that a big dam was going to be built by the Government of Lesotho and then they were promised many things. They were told how their lives were going to be beautified. The people had to agree to what was said. Yes, they did raise their concerns but they were convinced that there were no problems because their lives would be better off" (LS01).

Added to this, the International Rivers Network (IRN, 2008) stated that "participation by affected communities was minimal at best." Overall the public participation strategy adopted by the LHDA was ineffective in providing PAP with enough information to make informed decisions about resettlement, compensation and livelihood restoration. PAP did not fully understand the impact that resettlement would have on their lives. Affected people had no forum to effectively negotiate the impacts of the dam, let alone influence the decisions of the LHDA (IRN, 2008).

During the consultation process it is assumed that PAP were given enough information to make informed decisions about the Project. However, PAP were not given adequate information concerning their replacement housing. All resettled households chose modern brick houses without understanding the implications of selecting such structures. Today respondents complain that their replacement houses are not weather-friendly, difficult to maintain and not suitable to their lifestyles.

The LHDA should have used the public consultation process to provide PAP with enough information so that they could make informed decisions regarding their housing. An effective public participation process would have enabled PAP to assist project planners with designing home grown mitigation measures that responded to local needs.

Usually an effective public participation process empowers communities to take responsibility for their own development. This often leads to a "bottom-up" development approach that ensures community ownership and the sustainability of the Project. Through effective participation, developers are unable to impose their own definitions of development; instead, communities are perceived as being capable to make their own decisions concerning their own development. Under such circumstances, public participation can significantly contribute to empowering communities thereby reducing the "dependency syndrome".

Had an effective public participation process been implemented during Phase 1B, this would have increased the likelihood of PAP taking responsible for their development. Even though a majority of the PAP (57%) were of the opinion that the public consultation process was effective, this was based on the notion that public participation did occur between the developers and the affected communities. However, this is not to say that the public participation process empowered PAP to attain and realise their right to development.

During Phase IB "the biggest weakness was community participation. Communities did not participate in an event that would shape their future. And if for example they were going to be resettled they should have been given options and assisted with life beyond compensation. They should have been given the full picture of the negative impacts of this project" (LS01).

"It is important to see not only the benefits of the project but also to educate people on the negative aspects of the project and how they are going to be mitigated. People need to be taught all the impacts of even selecting a house. If you choose say this house you will do this and we realise this is not good. This is how we are going to develop good intervention measures. LHDA needs to give people the tools so that they can take charge of their own lives" (LS01).

During Phase 1B the public consultation process was manipulated to convince communities that their lives would be improved by the Project. The consultation process did not adequately inform PAP of the negative Project impacts. Thus the public consultation process increased expectations instead of managing expectations. Through the public consultation process PAP should have been informed of the consequences of their decisions. As such PAP should have been shown how, and to what extent, Mohale Dam would impact on their lives. For this to occur, the developers would have had to accurately disseminate project information and empower PAP to make informed decisions concerning their own development and quality of life.

7.5.4 Quality of life

Of the respondents interviewed 47% felt that their lives had improved. This was mainly amongst respondents living in Ha Mohale and Ha Thaba Bosiu. The main reasons given included increased access to services, transportation and shops. Overall, the participants who benefited from resettlement were those who did not rely solely on cash compensation to secure their livelihoods. Of the 53% of the respondents who felt their lives had deteriorated, a majority of these respondents lived in Ha Nazareth. Amongst these respondents, many were dependent on cash compensation to secure their livelihoods.

In the Panel of Expert Report (2004) it was stated; "households that have seen their standards of living increase are those that have substantial numbers of rental units (some people in Thetsane and

Ha Tsolo had as many as 16 malaene units, which they were renting out at a rate of M100 – M150 per month), those that have substantial agricultural field and garden areas, those that have diversified sources of income, and those that have livestock" (POE Report 36, 2004).

In the Panel of Export Report (1998) it was stated that "inadequate attention has been paid to assisting villagers in advancing their own welfare through farm production 'cooperatives'" (POE, 13, 1998). This is however a common feature in other development projects, which primarily focus on physical removal, and the delivery of cash compensation (WCD, 2002). Although "a principle vehicle for delivering resettlement benefits," cash compensation "usually fails to replace lost livelihoods" (WCD, 2002: 107). Instead, resettlement programmes should focus on an approach geared towards improving the living standards of PAP. This however requires the effective implementation of a RDAP, which in Phase 1B failed to materialise.

In order to improve the lives of those affected by the Project, the LHDA should have focused on advancing diversified livelihood strategies that included a suite of economic activities, which combined wage labour, agriculture, livestock management, and a wide range of small and medium scale entrepreneurial activities (POE Report 13, 1998). Such a strategy has the potential to establish links between agro-pastoralism, income generation, and community-based natural resource management (POE Report 11, 1997). During Phase 1B, the RDAP was supposed to implement a livelihood restoration programme. However, the RDAP was never successfully implemented. This is mainly attributed to institutional constraints, which overemphasized compensation and resettlement.

The emphasis on monetary compensation is partly due to western definitions of development that prioritise money, individualism and single versus multiple livelihood strategies. In many instances developers "stipulate how many bags of maize are produced but nothing about the… quality of health you are going to get from all that starch and no vegetables and protein. And that has been one of the major faults in terms of the response to the impacts of development. Development has been so mechanically driven" (LS03).

In a key informant interview it was stated that the compensation and resettlement plans were developed without much consideration for the local context. "These plans were developed in some sort of a vacuum because you don't develop a plan unless you understand the local culture…" (LS03). This is mainly attributed to no ethnographic study being undertaken for the Mohale ESIA. Added to this, the ESIA was conducted by white South African practitioners, with the exception of Mr. Tshabalala who conducted the baseline study.

In order for compensation, resettlement and public participation to improve the quality of life of those affected by projects, these policies have to be developed within a local context that understands local needs, local definitions of development and the local ways of being. One cannot assume that all PAP will benefit from having access to more money, bigger homes and employment. These ideals are based on 'western' notions of development that prioritise individualism and materialism.

Phase 1B would therefore have improved the quality of life of all affected households, had the ESIA process being informed by PAP, and their local understandings of development. This requires an ESIA process that is guided by effective public participation that empowers communities to make their own decisions concerning their right to development.

7.5.5 The Mohale Environmental and Social Impact Assessment

Even though the "the Mohale ESIA was implemented to determine and mitigate the environmental and social impacts of the Mohale Dam" (LS01), the decision-making process of the Mohale ESIA was influenced by a broader political context that served to protect the developer's interests. This was clearly articulated by a respondent who stated "as much as an ESIA is a development tool there are problems depending on how the ESIA developer uses the ESIA. You can also use ESIA to benefit you as a developer or as a proponent of a particular project. In this particular case (Mohale Dam) the people were just shown the good side of the Project. They were not shown the negative aspects of the Project" (LS01). "The developers conducted the EIA and they were not really objective but they were more about justification for the Project" (LS02).

In Lesotho the challenge of political interference is further accentuated by "ESIAs being implemented as an afterthought. There is a misconception that ESIAs slow down development. They are perceived as fulfilling a requirement and not adding value to development projects" (LS05). In Lesotho the National Environmental Secretariat (NES) wanted to hold a series of meetings, which would raise awareness of ESIAs amongst developers and consultants. "These meetings would hopefully make them aware that EIAs do enhance development projects" (LS02).

These meetings would however address one aspect of the problem. The main problem is associated with the development framework currently informing ESIA in Lesotho. "ESIAs should be used to protect natural resources, but I don't think this is how the GOL would define development. For them it is about creating jobs... Economic development is prioritised" (LS02). Therefore, if ESIAs were to be implemented effectively this would require the reformulation of the dominant development framework.

By prioritising economic development over sustainable development the development effectiveness of ESIA is compromised. Under these circumstances, ESIAs are implemented to rubber stamp development projects. This results in the implementation of ESIAs, which are not guided by PAP. As such, ESIAs can potentially "propose mitigation strategies that are not practical" (LS02) or suited to the local environment.

If ESIAs are to ensure that the lives of those adversely affected by a project are improved, ESIAs need to be informed by the social context. Many of the mitigation strategies adopted by Phase 1B of the LHWP were culturally inappropriate. "The mitigation strategies were part of the development process and also had positive and negative impacts" (LS02). "ESIA practitioners were naive to the outcome of the mitigation strategies and the developers were just as naive to the outcomes of their own strategies" (LS04).

The culturally inappropriate mitigation measures adopted by the LHDA compromised the development effectiveness of the Mohale ESIA. Amongst these mitigation measures included the choice to resettle households as separate units, the choice to build brick structures rather than traditional huts, the choice not to integrate resettled households with host communities, and the choice to ignore the impacts of emphasizing monetary compensation over livelihood restoration.

Even though 47% of the PAP who were interviewed felt that their lives had improved, the development effectiveness of the Mohale ESIA was adversely affected by a development framework

that prioritised western ideals of individualism, money and single, instead of multiple livelihood strategies. As such there is a disjuncture between the impacts identified by the ESIA and those actually experienced by PAP.

Table 7-1 provides a summary of the key predicted impacts compared against the actual impacts that emerged after the resettlement and compensation of affected communities.

Table 7-1: A summary of the key predicted impacts

No.	Predicted impacts	Mitigated	Description
Positive impacts			
1.	Job creation	NO	None of the respondents were employed by the Project.
2.	Increased income	NO	A majority of the respondents complained that their incomes had deteriorated.
3.	Training and skills development	NO	Only one respondent (4%) had attended a training and skills development course.
4.	Stimulate subsidiary business	NO	Only two respondents were using their compensation money to pursue other business interests.
5.	Increased tourism opportunity	N/A	Not enough information to provide a conclusive finding.
6.	Electrification and telecommunications	NO	Households that could afford electricity were provided access. Only one of the households interviewed was electrified. None of the households interviewed had access to telephones, but rather cell phones.
7.	Reduced seasonal flooding	N/A	Not enough information to provide a conclusive finding.
8.	Improved water access	NO	A majority of the respondents complained about water shortages.
9.	Improved medical facilities	YES	Many of the respondents felt that access to medical facilities had improved.
10.	Improved access	YES	The respondents did perceive improved access as a positive impact.
11.	Improved transportation	YES	The respondents felt that access to transportation had improved.
12.	Improved economic development	N/A	Not enough information to provide a conclusive finding.
13.	Improved institutional capacity	N/A	Not enough information to provide a conclusive finding.
14.	Improved village services	YES	A majority of the respondents mentioned improved village services as a positive impact.
15.	National economic growth	N/A	Not enough information to provide a conclusive finding.
16.	International benefits	N/A	Not enough information to provide a conclusive finding.
17.	Improved public transportation	YES	Respondents felt that transportation had improved.
Negative impacts			
18.	Loss of livelihoods and subsistence	NO	A majority of the respondents felt that their livelihoods have deteriorated.

No.	Predicted impacts	Mitigated	Description
19.	Loss of housing and infrastructure	YES	Respondents were pleased with the replacement housing and infrastructure.
20.	Loss of cultural identity	NO	A majority of the respondents felt that their lives had changed dramatically. This included the loss of cultural practices i.e. cooking outside in a separate rondavel.
21.	Decreased community social interaction	NO	A majority of the respondents felt that community social interaction had decreased.
22.	Loss of land tenure	NO	Most of the respondents complained that they did not have access to fields.
23.	Loss of biomass fuel	NO	A majority of the respondents complained that they had lost access to communal biomass fuel i.e. wood and dung.
24.	Increased dependence on short term employment	N/A	Not enough information to provide a conclusive finding.
25.	Informal sector increasing social pathologies	N/A	Not enough information to provide a conclusive finding.
26.	Greater pressure on schools and clinics	N/A	Not enough information to provide a conclusive finding.
27.	Reduction in food security	NO	Respondents did complain about struggling to feed their families.
28.	Loss of social support systems	NO	A majority of the respondents felt a loss of their social support systems.
29.	Increase in occupational health fatalities	N/A	Not enough information to provide a conclusive finding.
30.	Decrease in nutrition	N/A	Not enough information to provide a conclusive finding.
31.	Increase in sexually transmitted diseases	N/A	Not enough information to provide a conclusive finding.
32.	Increase in substance abuse	NO	Respondents did complain about increased alcohol abuse.
33.	Increase in other health problems	N/A	Not enough information to provide a conclusive finding.
34.	Increase in gender inequality	NO	Male household heads made the decisions concerning resettlement and compensation, although women did attend the public consultation meetings.
35.	Decreased aesthetics	N/A	Not enough information to provide a conclusive finding.
36.	Access increasing stock theft and destroying local markets	N/A	Not enough information to provide a conclusive finding.
37.	Decreased public safety	N/A	Not enough information to provide a conclusive finding.
38.	Disruption of other cultural resources	NO	Not enough information.

Even though 47% of the respondents felt that there their lives had improved, Table 7-1 indicates that of the 22 impacts tested (excluding the yellow coded impacts) a majority of these key predicted impacts (72.7%) were not mitigated. In addition, a number of the Project impacts were unidentified, some of which include:

- Increased social inequality between resettlees and host communities;
- Increased social conflict between resettlees and host communities;
- Increased expectations; and
- Increased dependency on cash compensation.

These impacts were most likely overlooked due to the ESIA process ignoring the unintentional consequences of cash compensation and resettlement.

7.6 Main findings

Some of the main findings from the in-depth interviews with PAP include:

- A majority of the respondents were overly dependent on cash compensation;
- Those who perceived that their lives had deteriorated were those households who were overly dependent on cash compensation;
- Of the 53% of the households who felt that their lives had deteriorated, a majority of these respondents lived in the Foothills;
- The development effectiveness of resettlement was not affected by the resettlement location (i.e. Foothills or Lowlands), but rather by poor relations with host communities;
- Poor relations with the host community affected the provision of communal assets, which compounded dependence on monetary compensation;
- A majority of the respondents were not considering life beyond compensation. Added to this less than 10% of the respondents were making provisions for a future without compensation;
- Even though many women felt that the public participation process was inclusive, it was stated that male heads of the households made the final decisions on resettlement and compensation.
- A majority of the respondents would have preferred to have been compensated with land-for-land;
- A majority (91%) of the households felt that they were not prepared for the change; and
- Even though a majority of the respondents felt that the public consultation process was inclusive, most respondents felt that the LHDA raised their expectations of a better life and made promises that did not materialise.

Some of the main findings from interviews with key informants include:

- The Mohale ESIA was not objective. It was manipulated by developers to provide justification for the Project;

- Economic growth was the development framework informing the Mohale ESIA;
- The mitigation strategies adopted by Phase 1B of the LHWP were culturally inappropriate;
- The Mohale ESIA was not grounded in the local social context;
- The public consultation process did not inform PAP of the negative Project impacts. The ESIA therefore created expectations instead of managing expectations;
- The ESIA process prioritised western ideals of individualism, money and single, instead of multiple livelihood strategies.
- The outcomes of the resettlement and compensation processes resulted in a number of unintentional development consequences.

From these main findings, it is evident that the development effectiveness of the Mohale ESIA was compromised by an ESIA process, which was informed by 'western' notions of that pioritised economic growth, individualisms, money and employment. This resulted in a number of development consequences which inadvertently led to PAP becoming dependent on Project finance for their survival. If the Mohale ESIA had implemented an effective public participation process whereby the PAP informed the decision-making processes of the Project, the Mohale ESIA would have been informed by the social context. This would have allowed the Mohale ESIA to promote local definitions of development, needed to identify sustainable mitigation measures, which would improve the lives of those affected by the Project.

Using the WCD's analytical approach to assessing large dam development the research sought to answer the following questions:

- What were the projected versus actual benefits, costs and impacts?
- What were the unexpected benefits, costs and impacts?
- What was the distribution of costs and benefits – who gained and who lost?
- How were decisions made?
- Did the project comply with the criteria and guidelines of the day?
- How would this project be viewed in today's context in terms of lessons learned?

By answering these questions, the research concludes that the decision-making process of the Mohale ESIA did not empower PAP to attain their right to development. Although 47% of the PAP interviewed felt that their lives had improved due to increased access to social services, the majority of the PAP interviewed (53%) felt that their lives had deteriorated due to increased dependency on Project finance to secure their livelihoods. As such the Mohale ESIA was unable to mitigate adverse Project impacts, instead, the Mohale ESIA decision-making process contributed to a number of unintentional project impacts.

7.7 Conclusion

The Mohale ESIA was implemented to identify and to mitigate the social and environmental impacts of Mohale Dam. These impacts were both positive and negative. The negative impacts were mitigated through a series of Environmental Action Plans. The *Resettlement and Development Action Plan* (1997) addressed compensation, resettlement and livelihood restoration. On paper it can be assumed that the Project did perceive compensation and resettlement as an opportunity for development. However, in reality interviewed PAP expressed a rather different picture. From interviews with 23 PAP, a majority of the interviewed PAP (93%) are now dependent on cash compensation for their livelihoods, while only two interviewed PAP (7%) do not rely solely on cash compensation to secure their livelihoods. This is possibly a result of the RDAP overemphasizing monetary compensation and resettlement, while underemphasizing livelihood restoration and sustainable development.

Using the analytical framework developed by the WCD (2000), this chapter was able to assess the projected impacts versus the actual impacts of the Project. It was found that were a few Project impacts that were not identified. In addition, many of the identified impacts were not mitigated. This is mainly attributed to the Mohale ESIA developing culturally inappropriate mitigation measures.

The public consultation process was unable to manage community expectations. Instead it can be argued that the public consultation process was manipulated to further the interests of the developer. During the public consultation process PAP were told that their lives would dramatically improve. They were promised many Project benefits, which have since not materialised.

Stakeholder engagement is a critical process that should provide stakeholders with enough information so that they can make informed decisions about their lives. As such the ESIA process should have assessed the unintentional consequences of resettlement, compensation and livelihood restoration. People should understand the potential impacts of their choices. This requires an ESIA process that is informed by the local context, the local norms, values and definitions of development.

This leads to the overall conclusion that ESIAs have to understand the cultural and social context within which a large dam is being constructed in order to develop sustainable mitigation measures that benefit PAP. This requires a bottom-up development approach that is informed by ethnographic studies, local definitions of development, and the involvement of stakeholders in decision-making processes. As such, ESIAs have the potential to significantly contribute to the development effectiveness of large dam projects, if the ESIA decision-making process is guided by PAP and their social context. The development effectiveness of the Mohale ESIA was therefore compromised by an ineffective participatory process that was unable to develop practical mitigation measures, which would improve the lives of PAP. Thus, the Mohale ESIA was informed by a top-down development approach that prioritised ‘western’ definitions of development.

8 Conclusion

By applying the WCD's analytical approach to assessing large dam developments, the research examined the development effectiveness of the Mohale ESIA. The research was conducted in five stages that triangulated qualitative in-depth interviews with a desktop study and literature review. During February and June 2007, the research conducted a total of 38 interviews with selected key informants. These in-depth interviews took place with 15 key informants who had expert knowledge in the Lesotho Highlands Water Project, ESIAs and the social impacts of large dams, and with 23 households directly affected by the construction of Mohale Dam. A majority of these households were resettled (65%), while 35% of the households remained in the Project Area. The interviewed households were randomly selected from three directly affected villages, two of which were host villages. The villages were purposefully selected to represent the geographical distribution of affected households. The selected villages comprised Ha Mohale in the Highlands, Ha Nazareth in the Foothills and Ha Thaba Bosiu in the Lowlands.

Of the respondents interviewed 47% felt that their lives had improved. This was mainly attributed to increased access to services, transportation and shops. Of the 53% of the respondents who felt their lives had deteriorated, a majority of these respondents were dependent on cash compensation to secure their livelihoods. Overall, the participants who benefited from resettlement were those who did not rely solely on cash compensation to secure their livelihoods. Although LHDA developed a Rural Development Action Plan (RDAP) it never materialised. As such, resettlement overemphasized monetary compensation, while it underemphasized the restoration of multiple livelihood strategies. As a result, a majority of the interviewed PAP are now dependent on monetary compensation to secure their livelihoods. It is thus concluded that the development effectiveness of the Mohale ESIA was adversely affected by a development framework that prioritised 'western' ideals of individualism, money and single, instead of multiple livelihood strategies.

If ESIAs are to ensure that the lives of those adversely affected by a project are improved, ESIAs need to be informed by the local context. This will prevent ESIA from implementing impractical mitigation measures, which lead to a number of unintentional development consequences. In order for this to occur, ESIA should be informed by an effective public participation process that enables PAP to influence project decisions. This will increase the development effectiveness of ESIA and ensure that PAP are empowered to attain their right to development.

Such an ESIA process requires the adoption of the WCD analytical approach. This approach should however be informed by an ecological framework that serves to acknowledge the finite resources of the Earth. If ESIAs are to promote a sustainable form of development, they will need to contribute to wealth alleviation, the reduction of poverty and the redistribution of power. This requires an ESIA process that is informed by a bottom-up development approach, local definitions of development and stakeholder engagement. As such, ESIAs have the potential to significantly contribute to the 'development effectiveness' of large dam projects, if ESIA decision-making processes are informed by PAP and the social context. This dissertation therefore contributes to a sociological understanding of the 'development effectiveness' of ESIA.

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Appendices

Appendix 1 Interview Guidelines

Stage 2 interview guideline

EIAS AND ENVIRONMENTAL POLICY

Date:	Place:
Interviewee:	
Government Department/Institution/NGO:	
Position:	
Responsibilities in position:	
Time in position/term of office:	
Contact details:	

The objective of this research is to determine the value of Environmental Impact Assessments (EIAs) as a development tool in large-dam projects. The research not only interrogates the capacity of EIAs to mitigate adverse social impacts, but also questions whether EIAs can be used to develop resettlement and compensation strategies that improve the daily lives of affected communities. The research will assess the value of EIAs as a development tool by analysing the EIA process for Mohale Dam of the Lesotho Highlands Water Project (LHWP). In-depth interviews will be carried out with key respondents to determine their opinions and perceptions of the Mohale EIA process and its potential value as a development tool. All material extrapolated from this interview will be anonymous and used solely for the purpose of this research.

THEME: ENVIRONMENTAL IMPACT ASSESSMENTS

- How would you describe EIAs?
- How effective are EIAs in mitigating adverse environmental impacts?
- How effective are EIAs in mitigating adverse social impacts?
- Do EIAs accentuate the positive aspects of development projects?
- Who benefits from EIAs?
- What are the weaknesses of EIAs?
- What are the strengths of EIAs?
- How can these weaknesses be minimised?

THEME: ENVIRONMENTAL POLICY

- How would you describe South Africa's environmental policy?
- What are your opinions on the new EIA regulations?
- Why were EIAs implemented so late in South Africa?
- How successfully are EIAs being implemented in South Africa?
- What are the limitations of implementing EIAs in South Africa?
- Are post-EIA analyses conducted in South Africa?
- Has SA's EIA process affected Lesotho's EIA processes?

THEME: LESOTHO HIGHLANDS WATER PROJECT

- What do you know about the Lesotho Highlands Water Project?
- Do you know any thing about the Mohale EIA process?
- Was South Africa involved in the Mohale Dam EIA process?

THEME: DEVELOPMENT

- How would you define development?
- Do EIAs promote a form of sustainable development?
- Can EIAs be used as a development tool?
- In South Africa EIAs have been criticised for prioritising economic growth over the needs of affected communities, is this a valid criticism?
- How would you improve the EIA process in South Africa?
- Thank you for participating in this research. Your responses have provided great insight into EIA processes and environmental policy in South Africa.

Thank you for participating in this research. Your responses have provided great insight into the EIA process for Mohale Dam of the Lesotho Highlands Water Project.

COMMENTS ON INTERVIEW:

Stage 3 and 4 interview guideline

THE LHWP, EIAS AND ENVIRONMENTAL POLICY IN LESOTHO

Date:	Place:
Interviewee:	
Government Department/Institution/NGO:	
Position:	
Responsibilities in position:	
Time in position/term of office:	
Contact details:	

The objective of this research is to determine the value of Environmental Impact Assessments (EIAs) as a development tool in large-dam projects. The research not only interrogates the capacity of EIAs to mitigate adverse social impacts, but also questions whether EIAs can be used to develop resettlement and compensation strategies that improve the daily lives of affected communities. The research will assess the value of EIAs as a development tool by analysing the EIA process for Mohale Dam of the Lesotho Highlands Water Project (LHWP). In-depth interviews will be carried out with key respondents to determine their opinions and perceptions of the Mohale EIA process and its potential value as a development tool. All material extrapolated from this interview will be anonymous and used solely for the purpose of this research.

THEME: EIA s AND ENVIRONMENTAL POLICY IN LESOTHO

- How would you describe Lesotho's environmental policy?
- How does Lesotho's environmental policy inform the EIA process in Lesotho?
- What are the general perceptions of EIAs in Lesotho?
- Does Lesotho have the capacity to effectively implement EIAs?
- Have EIAs evolved and adapted to the development needs of Lesotho? If so, how?
- Does environmental policy need to be improved to assist the effective implementation of EIAs in Lesotho? If so, how?

THEME: THE EIA PROCESS FOR MOHALE DAM

- How would you describe the EIA process for Mohale Dam?
- How effective was the EIA in assessing the adverse social impacts of Mohale Dam?

- How effective was the EIA in mitigating the adverse social impacts of Mohale Dam?
- What were some of the strengths of the EIA process?
- What were some of the weaknesses of the EIA process?
- How would you have improved the EIA process?
- What role did South Africa play in the EIA process for Mohale Dam?
- What role did the World Bank (WB) play in the EIA process for Mohale Dam?
- Were the WB 1991 EIA Guidelines used to design the EIA model conducted for Mohale Dam?
- How effective were the WB EIA Guidelines?
- How effective was the WB in assisting the implementation of the EIA?
- Was the EIA process adapted to the local context?

THEME: THE EIA AS A DEVELOPMENT TOOL

- How would you describe the resettlement programme for Mohale Dam?
- How would you describe the compensation strategy for Mohale Dam?
- Do you think affected communities effectively participated in the EIA process for Mohale Dam?
- Did affected communities assist the LHDA in developing the compensation and resettlement strategies used to mitigate the adverse social impacts of Mohale Dam?
- Do you feel that the EIA process contributed to improving the daily lives of affected communities?

Thank you for participating in this research. Your responses have provided great insight into the EIA process for Mohale Dam of the Lesotho Highlands Water Project.

COMMENTS ON INTERVIEW:

Stage 5 interview guideline

Date:	Place:
Interviewee:	
Interviewer:	

The objective of this interview is to gather information from affected communities on their experiences and opinions of the assessment process prior to and after resettlement. All information used from this interview will be anonymous and for the sole purpose of this research.

THEME: BASOTHO LIFE PRE- AND POST RESETTLEMENT

- Which village did you live in prior to re-settlement?
- What was your life like before you were resettled to this area/ into this community?
- What is your life like now?
- Has your life improved in anyways? If so, how?
- Has your life deteriorated? If so, how?

THEME: THE EIA PROCESS AND THE COMMUNITY

- Were you involved in the assessment process that took place prior to the construction of Mohale Dam?
- Did you feel that you effectively participated in this process?
- How do you feel about these assessment processes?
- How did your community feel about these processes?
- Were these processes easy to understand?
- How could these processes have been improved?

THEME: RESETTLEMENT AND COMPENSATION

- What are your opinions of the resettlement strategies?
- What are your opinions of the compensation strategies?
- Were you involved in designing the resettlement strategies?

- Did you participate in designing the compensation strategies?
- How did your community feel about these strategies?
- How would you have improved the resettlement strategies?
- How would you have improved the compensation strategies?

THEME: EIA AS A DEVELOPMENT TOOL

- Who benefited from Mohale Dam?
- Did Mohale Dam benefit you?
- Did Mohale Dam benefit your community?
- What changes would you have liked to see?
- What outcomes would have satisfied the needs of your community?
- Whose responsibility is it to ensure that you benefited from Mohale Dam?

Thank you for participating in this research. Your responses have provided great insight into the experiences and lives of affected communities in the Mohale Area.

COMMENTS ON INTERVIEW:

Appendix 2

Equator Principles

Principle 1: Review and Categorisation

- categorise a project based on the magnitude of its potential impacts and risks in accordance with the environmental and social screening.

Principle 2: Social and Environmental Assessment

- conducted a Social and Environmental Assessment ("Assessment") process.
- address the relevant social and environmental impacts and risks of the proposed project.
- propose mitigation and management measures relevant and appropriate to the nature and scale of the proposed project.

Principle 3: Applicable Social and Environmental Standards

- apply IFC Performance Standards
- apply Industry Specific Environmental, Health and Safety Guidelines ("EHS Guidelines")

Principle 4: Action Plan and Management System

- prepare an Action Plan which;

    i) addresses the relevant findings, and draws on the conclusions of the Assessment.

    ii) describes and prioritises the actions needed to implement mitigation measures, corrective actions and monitoring measures necessary to manage the impacts and risks identified in the Assessment.

- build on, maintain or establish a Social and Environmental Management System that addresses the management of these impacts, risks, and corrective actions required to comply with applicable host country social and environmental laws

Principle 5: Consultation and Disclosure

- consult with project affected communities in a structured and culturally appropriate manner.
- process must ensure their free, prior and informed consultation and facilitate their informed participation.
- adequately incorporated affected communities' concerns.

- disclosure should occur early in the Assessment process and in any event before the project construction commences, and on an ongoing basis.

Principle 6: Grievance Mechanism

- establish a grievance mechanism as part of the management system.

- receive and facilitate resolution of concerns and grievances about the project's social and environmental performance raised by individuals or groups from among project-affected communities.

- inform the affected communities about the mechanism in the course of its community engagement process and ensure that the mechanism addresses concerns promptly and transparently, in a culturally appropriate manner, and is readily accessible to all segments of the affected communities.

Principle 7: Independent Review

- an independent social or environmental expert not directly associated with the borrower will review the Assessment, AP and consultation process documentation in order to assess Equator Principles compliance.

Principle 8: Covenants

- the borrower will covenant in financing documentation:

    i) to comply with all relevant host country social and environmental laws, regulations and permits in all material respects;

    ii) to comply with the AP (where applicable) during the construction and operation of the project in all material respects;

    iii) to provide periodic reports (with the frequency of these reports proportionate to the severity of impacts, or as required by law, but not less than annually), prepared by in-house staff or third party experts, that document compliance with the AP (where applicable), and provide representation of compliance with relevant local, state and host country social and environmental laws, regulations and permits; and

    iv) to decommission the facilities, where applicable and appropriate, in accordance with an agreed decommissioning plan.

Principle 9: Independent Monitoring and Reporting

- Appoint an independent environmental and/or social expert, or require that the borrower retain qualified and experienced external experts to verify its monitoring information.

Principle 10: Reporting

- Report publicly at least annually about its Equator Principles implementation processes and experience, taking into account appropriate confidentiality considerations.

Performance Standards

PS 1: Social assessment and management.

PS 1 describes IFC requirements to ensure the management of social and environmental performance throughout the life of a project (IFC, 2006). The key requirements are:

- Establishment of a social and environmental management system.
- Social and environmental assessment and the determination of project risks and impacts in a defined area of influence (as part of an ESIA process).
- Establishment and implementation of an environmental and social management programme (ESMP), with an associated action plan.
- Establishment and maintenance of organisational structures and capacity to implement the ESMP.
- Stakeholder consultation and disclosure as part of the ESIA/ESMP process, and commitment to ongoing community engagement.
- Establishment of a grievance mechanism, and arrangements for regular monitoring and reporting.

PS 2: Labour and working conditions.

PS 2 outlines IFC requirements for workforce protection and for the promotion of constructive worker-management relationships (IFC, 2006). Relevant requirements are:

- Establishment of policies, principles and procedures to ensure fair and transparent working conditions and terms of employment.
- Protection of the workforce through adoption of standards on child and forced labour.
- Provision of a safe and healthy work environment through occupational health and safety policies and procedures.
- Ensuring that PS2 requirements are applied where appropriate to non-employee workers.
- Investigation of possible adverse impacts and poor labour practices in supply chain arrangements.

PS 4: Community health, safety and security

PS 4 presents requirements for managing community health and safety risks, and for ensuring that security arrangements are legitimate and free of risks to community safety and security (IFC, 2006). The key requirements include:

- Evaluation of project-related community health and safety risks.
- Introduction of measures to prevent or avoid risks.
- Disclosure of risks and ongoing engagement regarding the management of these.
- Ensuring emergency preparedness and response planning and capability.
- Assessment of security arrangements and providers, and provision of security services that are aligned with good international practice.

PS 5: Land acquisition and involuntary resettlement

PS 5 lists IFC requirements for the avoidance or management of involuntary resettlement (IFC, 2006). The main requirements include:

- Consideration of project designs that avoid or minimise physical or economic displacement.
- Compensation for loss of assets at full replacement value, and with assistance to restore or improve livelihoods and standard of living.
- Comprehensive and consultative resettlement planning where resettlement is unavoidable. Resettlement planning must include a socio-economic baseline and census, with careful determination of eligibility for compensation and livelihoods restoration. Consultation must continue through implementation and must accompany monitoring and evaluation.
- In cases of physical displacement, a full Resettlement Action Plan (RAP) must be produced. Where displacement is economic, a document describing land acquisition and compensation procedures is required.
- Where resettlement is government managed, the project sponsor should collaborate to achieve outcomes consistent with PS5.

PS 8: Cultural heritage

This PS lays out requirements for the protection and preservation of cultural heritage, and for the sharing of benefits derived from the use of heritage in business activities (IFC, 2006). The key requirements are:

- Taking heritage protection and conservation into account in project design and execution.
- Consultation with affected communities and relevant regulatory authorities regarding sites of cultural heritage, and with reference to decisions related to heritage protection and conservation.
- Avoidance of significant impacts in areas of critical cultural heritage (including internationally recognised and/or legally protected cultural heritage areas). Where disturbance cannot be avoided, good faith negotiation with affected communities must take

place, with documentation of the outcome. Consultation with sponsors and managers must be undertaken in the case of protected areas.

- Procedures for chance finds and removal of heritage must be developed. Heritage must be protected in-situ wherever possible.

- Commercialisation of heritage can only proceed where communities are aware of their rights, good faith negotiation has taken place, and sharing of benefits has been agreed.

Appendix 3

Forms of public participation

There are three main dimensions that characterise public involvement (Carley & Derow, 1980). First, there is publicising and education, or the dispersal of information to the public. Such participatory impact assessment is itself an educative social process (Roberts, 1995); secondly, there is the provision and promotion of opportunities for interaction between the public and those responsible for developing the policy or programme; and thirdly, there is the collection of information which is useful to ESIA and the formulation of mitigation strategies. Each of these strategies entails different degrees of public involvement.

There is a tendency to ignore the subtle differences between public involvement, public participation and consultation (Roberts, 1995). Public involvement is a process that involves the public in decision-making processes. This can be brought about through either consultation or participation, the key difference being the degree to which those involved in the process are able to influence, share, or control decision-making. While consultation includes education, information sharing, and negotiation, public participation actually brings the public into the decision-making process. Typically, public involvement has relied heavily on consultation and not on participation (Roberts, 1995). As a result, ESIAs have predominately focused on shallow forms of community involvement that do not allow the public to influence the ESIA processes and outcomes. However, a growing number of organisations have begun using public participation in the form of joint planning and delegated authority, where the public controls and directs the process and ultimately the end results of the ESIA (Roberts, 1995).

In many developing countries public participation is limited and processes are still insufficient. Most ESIAs in Africa have not involved the public. This is mainly attributed to the lack of awareness of the ESIA process, the population being illiterate or semi-illiterate, thus effectively debarring their participation especially when documents are too technical to be easily understood. ESIAs and public participation are also not legal requirements in many African countries, and there is a lack of institutional capacity to allow for public participation (Vanclay et al, 2000).

In addition most African societies are divided into major groups of educated and non-educated, urban and rural, and traditional and modern. Using a variety of tools to increase public participation is therefore essential. The educated, urban and modern groups can use ballot and suggestion boxes, campaigns and written or oral arguments to reject or support projects. Rural and traditional groups can use more of the visual and spoken methods known to be effective. Here, useful tools can include field demonstrations and public gatherings, for example "*pitsos*" in Lesotho and "*barazas*" in Kenya, chaired by community elders, who are a source of information to be shared and part of the decision-making processes. To enlighten rural groups further, technical jargon should be simplified and ESIA documents translated into easily understood versions (Vanclay et al, 2000).

Public participation is a technical education tool for affected and interested people to participate in the ESIA and planning processes. It is a preparatory activity that, although time-consuming, is considered essential to the effectiveness of negotiation. Its main objective is to prepare community representatives to understand project implications and express and discuss their interests and

concerns. Other important model elements are the establishment of information exchange mechanisms, conflict mediation, and legal and financial support for the implementation of social impact mitigation and compensation measures.

Using public participation ESIA can derive its final results not from some formula-derived numerically, but from inter-group conflict and cooperation (Roberts, 1995). Often ESIA is perceived as bringing harmony to political decision-making processes when in fact conflict is inevitable (Cock & Webster, 1996). Such decision-making will always involve conflict as long as there are pluralistic, divergent, and often irreconcilable value stances (Carley & Derow, 1980). However, public involvement can often help some divergent values coalesce towards a win-win decision that assist communities accepting development and impacts (Cock & Webster, 1996, Carley & Derow, 1980). In the State of Minas Gerais there was strong local opposition to the Irape Dam and power plant on Jequitinhonha River, which led to a series of meetings with community groups before the feasibility studies were conducted. The meetings spread information on the project, discussed likely impacts and detailed community interests and demands. As a consequence, the ESIA and preliminary application reviews met with little opposition and the basic project of the power plant was developed in accordance with the negotiation agreements (Vanclay et al, 2000). However, some of the problems associated with public participation result from the many constraints affecting the implementation of ESIAs.

Stakeholder engagement

Public consultation has been criticised for superficially engaging with communities and key stakeholders. Public consultation usually entails one round of public meetings. These meetings typically take place at the beginning of the project. During these meeting stakeholders are informed about the project, the ESIA process and the potential environmental and social impacts should the project occur. This type of consultation rarely extends into the project planning phase, and is seldom used to build constructive working relationships with key stakeholders. To address these shortcomings, the term “stakeholder engagement” has now replaced “public consultation” (IFC, 2007).

Stakeholder engagement describes a broader, more inclusive, and continuous public participation process. It encompasses a range of activities, approaches, and feedback mechanisms that span across the entire life of a project. The recognition of meaningful stakeholder engagement reflects the broader changes taking place within definitions and understandings of development practice. With a greater emphasis being placed on a “social license” to operate, businesses are being forced to take corporate social responsibility, transparency, reporting and stakeholder engagement a lot more seriously. Today with an increased recognition of social justice, human rights and environmental protection, companies can no longer afford poor stakeholder engagement. As such good stakeholder relations are now a prerequisite for good risk management (IFC, 2007). Even though stakeholder engagement extends beyond the ESIA process, it will still form an integral part of the process.