

IASCP 9th BIENNIAL CONFERENCE 2002

PAPER

**ENVIRONMENTAL IMPACT ASSESSMENT AS A TOOL OF COMMON
PROPERTY RESOURCE MANAGEMENT IN SOUTHERN AFRICA: TOWARDS
AN INTEGRATED REGIME**

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17-21 June 2002

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PART ONE

GENERAL BACKGROUND

1.1 Introduction

Environmental impact assessment (EIA) is one of the indispensable tools of common property resource management. Through its use, policies, plans, programmes and projects that have detrimental impacts on the conservation and sustainable utilisation of common property resources can be identified, reformulated and/or rejected.

In Southern Africa EIA has been known for many years. The primary purpose of the present study is to document the extent of this knowledge and its effect. In particular, the study shall determine whether EIA has contributed to the preservation and protection of the environment of the region, and whether there is a need for regional EIA coordination. To this end, the present Part covers introductory matters. It considers the origin of EIA, objectives of EIA, history of EIA in the region and the Southern African Development Community (SADC). Part 2 will analyse the environments of the States of the region. The aim is to identify common environmental trends that necessitate a coordinated approach in EIA law and practice. Part 3 will critically appraise the EIA legislation and policies of the various States. The critical appraisal will assist in developing threads of effectiveness that will be collected in Part 4 to establish the effectiveness of EIAs in SADC States. In addition Part 4 will complete the picture of regional EIA integration introduced in Part 2, discuss the relevance of SADC in the set-up and comment on the EIA systems established in the European Community Directive 85/337/EEC and in the Convention on Environmental Impact Assessment in a Transboundary Context of 1991. Part 5 will summarise previous Parts and append concluding remarks.

For the most part, the comparative approach will be adopted. Insights from the analysis are expected to play a prominent role in the general enterprise of investigating the need for regional EIA coordination.

No empirical studies have been undertaken. This paper is largely based on documentary research.

1.2 Origin of EIA

It is a sad commentary on human existence that despite our superior faculties, we have, over the years, through default, neglect or sheer recklessness, participated in damaging, in one way or another, the environment on which we depend for our existence. In the name of economic progress, massive hydro-electric power stations, huge industries, spectacular seaside resorts and gigantic skyscrapers have been erected with no thought for their environmental effects. We now live 'in an age of environmental alarm, an age in which the very survival of humankind appears to be threatened by systemic environmental damage'.¹ Adverse weather changes are common. Essential ecological processes have been disturbed. Numerous species of plants and animals have disappeared. Hunger, poverty and disease are on the increase. The human race has become its own worst enemy.

Slightly more than three decades ago the people of the United States of America decided that the tide of environmental degradation could not be allowed to continue unabated. Development had instead to be pursued with environmental considerations in mind. In February 1969 Bill S1075 was placed before the Senate; it suggested the encouragement of ecological research and the formation of a Council on Environmental Quality. In the House of Representatives a similar Bill, HR6750, was introduced, proposing the articulation of a national environmental policy and the establishment of the Council. In the discussions that followed in both chambers of Congress, the National Environmental Policy Act of 1969 (NEPA) was moulded. Section 102 of this statute required, for the first time in history, that environmental impact assessment be conducted. Specifically, Congress directed that all agencies of the Federal Government include in every recommendation or report on proposals for legislation and other major federal actions significantly affecting the quality of the human environment, a detailed statement on

- the environmental impact of the proposed action;
- any adverse environmental effects which could not be avoided if the proposal were implemented;
- alternatives to the proposed action;
- the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity; and
- any irreversible and irretrievable commitments of resources which would be involved in the proposed action if implemented.²

¹J du P Bothma and P D Glavovic 'Wild Animals' in R F Fuggle and M A Rabie (eds) *Environmental Management in South Africa* (1992) at 257.

²J Glasson, R Therivel and A Chadwick *Introduction to Environmental Impact Assessment* 2ed (1999) at 30.

Described as ‘a fluke, strengthened by what should have been amendments weakening it, and interpreted by the courts to have powers that were not originally intended,’³ NEPA has had a profound effect on environmental thinking worldwide. In the United States itself, NEPA has led to the preparation of over 10 000 environmental impact statements.⁴ In the world at large, the Act has influenced the introduction and implementation of environmental impact assessment policies, guidelines, executive orders, regulations and statutes. Southern Africa has been no exception.

However, the world has not followed the US lead religiously. There have been significant departures from NEPA’s conception of EIA. As an illustration, in many countries EIAs are, contrary to NEPA’s provisions, not restricted to government actions but are also required in private projects. These departures have resulted in the proliferation of different terminologies relating to EIA, which may at times be confusing. For this reason, it is necessary at the outset to define frequently occurring terms in this field. Thereafter the discussion will focus on the nature and objectives of EIA, history of EIAs in Southern Africa, and the Southern African Development Community.

1.3 Definitions

As noted, there are numerous terms associated with EIA. For practical purposes it is not possible for this treatise to canvass all of them; only a few will be considered together with a definition of EIA itself.

1.3.1 Environmental assessment

Sadler writes that environmental assessment is ‘a systematic process of evaluating and documenting information on the potentials, capacities, and functions of natural systems and resources in order to facilitate sustainable development planning and decision-making in general, and to anticipate and manage the adverse effects and consequences of proposed undertakings in particular’.⁵

³Glasson et al op cit n2 at 29.

⁴Glasson et al op cit n2 at 28-29.

⁵B Sadler *International Study of the Effectiveness of Environmental Assessment. Environmental Assessment in a Changing World: Evaluating Practice to Improve Performance* (1996) at 11 quoted in J Glazewski *Environmental Law in South Africa* (2000) at 271.

The same writer is of the view that the term ‘environmental assessment’ encompasses both ‘environmental impact assessment’ and ‘strategic environmental assessment’: the former targeting projects and the latter dealing with the assessment of policies, programmes and plans.⁶ This distinction is not respected by other writers. Some simply equate the term ‘environmental assessment’ with the term ‘environmental impact assessment’.⁷ In the interest of clarity, Sadler’s approach will be adopted in this paper.

1.3.2 Environmental impact

For a long time there has been a debate on whether the words ‘impact’ and ‘effect’ are interchangeable. Catlow and Thirlwall, Preston and Bedford, and Stakhiv⁸ contend that there is a difference in the two words. On the other hand, Biswas,⁹ Canter,¹⁰ Fuggle¹¹ and many authors regard the two terms as synonymous.¹² With due respect, it is submitted that drawing a distinction between such common words is a recipe for confusion in understanding EIA. In the present text ‘impact’ and ‘effect’ are treated as having the same meaning.

‘Environmental impact’ may therefore be defined as the effect human activities have on the environment. In terms of a project, environmental impacts are ‘those resultant changes in environmental parameters, in space and time, compared with what would have happened had the project not been undertaken’.¹³ The parameters may, for example, be air quality or water quality.

⁶Ibid, as summarised by Glazewski op cit n5 at 270-271.

⁷A K Biswas and Q Geping (eds) *Environmental Impact Assessment for Developing Countries* (1987) at 196; J A Dixon, L F Scura, R A Carpenter and P B Sherman *Economic Analysis of Environmental Impacts* (1994) at 9. In the USA an environmental assessment is a document which is used to determine whether an environmental impact statement is necessary for a proposed action: L W Canter *Environmental Impact Assessment* 2ed (1996) at xvii.

⁸Glasson et al op cit n2 at 21 for the views of these authors.

⁹Biswas and Geping op cit n7 at 196. Biswas acknowledges at page 2 that the views expressed in the article (or chapter) are not personal but the result of the meeting of minds of experts.

¹⁰Cf his definition of EIA quoted below: Canter op cit n7 at 2.

¹¹Cf his definitions of EIA and environmental impact analysis quoted below: Fuggle R F ‘Environmental Evaluation’ in Fuggle and Rabie op cit n1 762 at 764.

¹²Glasson et al op cit n2 at 21.

¹³Glasson et al op cit n2 at 19.

There are several types of impact: physical and socioeconomic, direct and indirect, short-run and long-run, local and strategic, adverse and beneficial, reversible and irreversible, quantitative and qualitative, actual and perceived. This list is not exhaustive.¹⁴

1.3.3 Environmental impact analysis

Fuggle, a South African authority, defines environmental impact analysis as ‘a process contained in environmental impact assessment (EIA) by which the environmental effects of a project are analysed’. He distinguishes it from the term ‘environmental analysis’ which he describes as ‘a process aimed at the recognition of causes and effects’.¹⁵

1.3.4 Environmental impact assessment report

An environmental impact assessment report (EIA report) is a report or document that contains the results of an EIA. It puts together the information and estimates of impacts derived from the various steps in the EIA process. It provides the decision-maker with valuable information on whether the proposed project is environmentally viable, or whether it should be abandoned or substantially modified on environmental grounds. In some countries the EIA report is referred to as an environmental statement, an impact statement, an environmental impact statement, an environmental impact report, or as a 102 statement.¹⁶

1.3.5 Environmental evaluation

Over two decades ago Munn¹⁷ suggested a definition for environmental evaluation that is still cited by modern authors. He defined it as an activity designed ‘to identify and predict the impact on the environment and on man’s health and well-being of legislative proposals, policies, programmes, projects and operational procedures, and to interpret and communicate information about the impacts’.

¹⁴Adapted from Glasson et al op cit n2 at 20.

¹⁵ Fuggle op cit n11 at 764.

¹⁶Glasson et al op cit n2 at 6; Biswas and Geping op cit n7 at 196; Section 25(1) of Malawi’s Environment Management Act No 23 of 1996. The environmental impact assessment report is called 102 statement in the USA, the 102 referring to the section in NEPA that makes provision for environmental impact assessment.

¹⁷R E Munn *Environmental Impact Assessment: Principles and Procedures* (1979) as quoted in Glasson et al op cit n2 at 3-4 and as referred to by Fuggle op cit n11 at 763-766 and Glazewski op cit n5 at 272.

This definition is wide in scope. It covers environmental assessment, environmental impact assessment and strategic environmental assessment. The term ‘environmental evaluation’ therefore appears to be a concise way of describing these ‘different’ types of assessment.

1.3.6 Environmental inventory

An environmental inventory is a description of the environment of an area prior to the implementation of a proposed action. It provides the basis for assessing the potential impacts on the environment of the proposed action. It may also be referred to as environmental baseline study, environmental identification or environmental setting.¹⁸ Canter¹⁹ states that the inventory is compiled from a checklist of descriptors for the physical-chemical, biological, cultural, and socioeconomic environments. He explains that the physical-chemical environment includes areas such as soils, geology, topography, water quality, air quality and climatology. The biological environment consists of the flora and fauna of the area. The cultural environment refers to the historic and archaeological sites, and aesthetic resources. The socioeconomic environment includes various considerations related to humans in the environment such as population trends; economic indicators of human welfare; educational systems and other infrastructure concerns like wastewater disposal; public services such as police and fire protection; and many others.

1.3.7 Environmental impact assessment

A plethora of definitions of environmental impact assessment (EIA) exists. Numerous authors have sought to articulate what they conceive of as EIA. Sheate²⁰ defines it in the following terms:

‘EIA is a public process by which the likely significant effects of a proposal on the environment are identified, assessed and then taken into account by the consenting authority in the decision-making process. It provides the opportunity to take environmental considerations into account at the earliest opportunity before decisions are made about whether to proceed with a proposed development or action. EIA enables proposals to be modified in the light of potential impacts identified in order to eliminate or else mitigate them’.

¹⁸Biswas and Geping op cit n7 at 196.

¹⁹Canter op cit n7 at 1-2.

²⁰*Environmental Impact Assessment: Law and Policy. Making an Impact II* (1996) at 25.

Ahmad and Sammy²¹ begin with the proposition that there is ‘no clear, concise definition’ of EIA. They then analyse what EIA involves and conclude with what they call a ‘pseudo-definition’ of EIA. It runs as follows:

- it is a study of the effects of a proposed action on the environment;
- it compares various alternatives by which a desired objective may be realized and seeks to identify the one which represents the best combination of economic and environmental costs and benefits;
- it is based on a prediction of the changes in environmental quality which would result from the proposed action;
- it attempts to weigh environmental effects on a common basis with economic costs and benefits; and
- it is a decision-making tool.

Writing from an American perspective, Canter defines environmental impact assessment as ‘the systematic identification and evaluation of the potential impacts (effects) of proposed projects, plans, programs, or legislative actions relative to the physical-chemical, biological, cultural, and socioeconomic components of the total environment’.²² This definition may be compared with that of Fuggle who posits that environmental impact assessment ‘should be understood as the administrative or regulatory process by which the environmental impact of a project is determined’.²³ It will be noted that just like Sadler, Fuggle restricts EIA to projects.

All of these definitions are similar in many respects. The differences lie in the ambit of application. The first two are somewhat non-committal in their extent of application: there is scope for interpreting them as advocating either that EIAs apply in projects only or that EIAs may also be used in policies, plans and programmes. By contrast Canter and Fuggle are clear on their stands: the former argues that EIAs are used in policies, plans and programmes as well as in projects, whereas the latter stops at projects. As stated earlier on, the view of the present writer is that for the sake of clarity it is better to confine EIAs to projects. Environmental assessments of policies, plans and programmes should be described by the well established term ‘strategic environmental assessment’.

²¹Y J Ahmad and G K Sammy *Guidelines to Environmental Impact Assessment in Developing Countries* (1985) at 1-2.

²²Canter op cit n7 at 2.

²³Fuggle op cit n11 at 764.

Ultimately, definitions do not settle substantive issues. What matters most is an understanding of the nature of EIAs.

1.4 Nature of environmental impact assessment

1.4.1 General

Writers generally agree that EIA is in essence a process that examines the environmental impacts of development activities in advance. The process comprises several steps. Empirical evidence suggests that these steps differ from country to country. There is therefore no universally accepted yardstick by which the adequacy of the steps may be judged. However, best practice appears to require, in the words of Barrett and Therivel, that an ideal EIA system should have such steps as will ensure that the EIA system:

- applies to all projects that are expected to have a significant environmental impact and addresses all impacts that are expected to be significant;
- compares alternatives to a proposed project (including the possibility of not developing the site), management techniques, and mitigation measures;
- results in a clear EIA report which conveys the importance of the likely impacts and their specific characteristics to non-experts as well as to experts in the field;
- includes broad public participation and stringent administrative review procedures;
- is timed so as to provide information for decision making;
- is enforceable; and
- includes monitoring and feedback procedures.²⁴

The first point may be addressed through two steps: project screening and scoping. The other points may be taken care of in other steps and issues highlighted below.

1.4.2 Project Screening

In project screening, all projects that do not make significant environmental impacts are allowed to proceed to administrative processes and the implementation stage. Only projects the environmental impacts of which are significant or not fully known are ‘diagnosed’ as requiring an EIA.

²⁴B F D Barrett and R Therivel *Environmental Policy and Impact Assessment in Japan* (1991) at 149 as quoted in Canter op cit n7 at 2-3.

Screening may be done in two principal ways: the *use of thresholds* and a *case by case* approach. The former places projects in categories and sets thresholds for each project type. These may relate to project characteristics, anticipated project impacts and project location. The case by case approach has a checklist of guidelines and criteria against which the characteristics of individual projects are appraised. Screening may also be done using a hybrid approach, for instance combining indicative thresholds with the case by case approach.²⁵

1.4.3 Scoping

Having established the need to conduct an EIA, it becomes necessary to determine the scope of the EIA. Scoping singles out the impacts and issues to be covered. It generally involves two stages. First, all impacts, whether severe or trivial, are listed. Secondly, this list is scrutinised to identify important impacts which will constitute the focus of the study. The initial list of impacts may be developed from consultations with the public, the project proponent, the competent authority and other relevant agencies. It may also be synthesised from other EIAs on similar projects. In the refinement of the initial list, four criteria may be employed, namely: magnitude (quantum of change to be experienced); extent (area to be affected); actual sundry effects; and special sensitivity of an area.²⁶ Whatever criteria are used, scoping ‘enables the limited resources of the team preparing an EIA to be allocated to the best effect, and prevents misunderstanding between the parties concerned about the information required in an [EIA report]’.²⁷

1.4.4 Environmental inventory or baseline study

The shortlist of important impacts will assist in determining the limits of an environmental inventory. Since the issues to be covered in the EIA are known, the preparation of the environmental inventory need only dwell on relevant aspects of the environment of the area. Glasson et al indicate that the establishment of the environmental baseline includes both the present and likely future state of the environment, assuming that a proposed project is not carried out, taking into account changes that result from natural events and from human activities. The future state of the environment should be predicted for a period comparable with the life of the proposed project. Data on environmental conditions may not be obtainable

²⁵Glasson et al op cit n2 at 88-90.

²⁶Ahmad and Sammy op cit n21 at 11-12. The learned authors refer to the criterion of ‘actual sundry effects’ as ‘significance’. The latter term has been left out in the present text to avoid confusion with the prior use of the term herein. Cf Glasson et al op cit n2 at 90-92.

²⁷Glasson et al op cit n2 at 91.

from a single source. There may be a need to refer to government publications, information from local history, conservation and naturalist societies or bodies. Local amenity groups may also provide useful data. Fieldwork may also be involved.²⁸

It must be emphasised that the environmental baseline study is of extreme importance as it provides the basis for evaluating the potential impacts - both beneficial and adverse - of a proposed project or its alternatives on the environment.

1.4.5 Alternatives

The developer may begin to consider alternatives the moment he puts his dreams on paper or even earlier. Best practice demands that such consideration should grow and find a place in the EIA. When the alternatives are identified and documented, analysts and decision makers are able 'to focus on the *differences* between real choices'.²⁹ The alternatives aid the process of isolating the best course of action in relation to the environment and relevant factors. Methods for comparing and evaluating alternatives abound: from simple descriptions to complex calculations.

The categories of alternatives for projects are not closed. They include site-location alternatives; design alternatives for a site; construction, operation, and decommissioning alternatives for a design; project-size alternatives; phasing alternatives for size groupings; no-project or no-action alternatives; and timing alternatives relative to project construction, operation and decommissioning.³⁰

1.4.6 Impact analysis or evaluation

After impacts have been identified and predicted, their relative significance is assessed. The methods of such analysis are of various types. They may be simple or complex, formal or informal, quantitative or qualitative, aggregated or disaggregated. One formal evaluation method is the comparison of likely impacts against legal requirements and standards. Other methods are the cost-benefit analysis, scoring, weighting, multi-attribute utility theory; the list goes on.³¹

²⁸Glasson et al op cit n2 at 104-107; Ahmad and Sammy op cit n21 at 12-13.

²⁹Glasson et al op cit n2 at 92.

³⁰Canter op cit n7 at 545; cf Glasson et al op cit n2 at 93-4.

³¹Glasson et al op cit n2 at 140-152.

This step in EIA is by far the most controversial and yet it is one of the most essential. Controversy arises partly from the difficulty in attaching reliable and comparable values to environmental goods and services. Time and resource constraints, and limitations in data and analytical methods are sometimes responsible for the difficulty.³²

1.4.7 Mitigation

Mitigation aims at avoiding, reducing and remedying adverse effects arising from a development activity. In the EIA process mitigation may come into play at various stages. The project proponent may modify the project design in order to take into account mitigation measures before the impact analysis step is reached. In the impact analysis itself, mitigation may be very useful and when taken into account, may lead to the development of a new alternative to the original project. Scoping, consideration of alternatives and environmental inventory may lead to additional mitigation measures.³³

1.4.8 Public participation

Public involvement in the EIA is instructive. Erickson contends that the public may be able to identify regionally important environmental issues that should be considered. The public may contribute data and information that are otherwise unavailable. The public may also be able to suggest feasible project alternatives that could reduce or avoid adverse environmental impacts.³⁴ However, public involvement is not all roses at all times. Increased project costs; project delay; unnecessary confrontation; extremism; and confusion of issues due to the introduction of numerous new perspectives, all form part of the package of its disadvantages.

Participation of the public is an ongoing process in EIA best practice: it is not restricted to a particular stage. Ridl, a leading South African EIA practitioner, puts it succinctly:

‘Making decisions without public consultation has been likened to taxation without representation. Consultation should take place at all stages of the process, but most importantly, it should take place at the earliest opportunity. If the public is invited to participate only after the development proposal is at an advanced stage or its design has been finalised, the invitation is likely to be regarded as an afterthought, the

³²D James *The Application of Economic Techniques in Environmental Impact Assessment* (1994) at 63.

³³Ahmad and Sammy op cit n21 at 14-15; Glasson et al op cit n2 at 152-157.

³⁴P A Erickson *Environmental Impact Assessment: Principles and Applications* (1979) at 17.

purpose of which is to lend credibility to the claim that there has been adequate public consultation in the decision making process'.³⁵

Involving the public in the EIA process may be accomplished in several ways, ranging from notice and comment procedures³⁶ to public hearings to informal gatherings.³⁷

1.4.9 EIA presentation

There is no universal standard for the presentation of a completed EIA study. The EIA report may be a few pages or several volumes of illustrated documents. Best practice seems to require that the EIA report be comprehensive; be one unified document; contain a non-technical summary; and explain why some impacts are not dealt with. Clarity of communication is invaluable.³⁸ Pictures, graphs and maps may be included as they simplify and summarise important information.³⁹

1.4.10 Monitoring and auditing

EIAs are based on predictions. When the decision-makers permit the project to proceed and the project is implemented, it is prudent to check whether the predictions had any bearing to reality. Further, in the course of implementation, it is necessary to keep track of how the implementation is progressing. Monitoring and auditing handle these tasks. Monitoring is the measuring and recording of physical and socioeconomic variables associated with the project impacts. It 'seeks to provide information on the characteristics and functioning of variables in time and space, and in particular on the occurrence and magnitude of impacts'. It can be used as 'an early warning system, to identify harmful trends in a locality before it is too late to take remedial action. It can help to identify and correct unanticipated impacts'. On the other hand, auditing centres on comparing the environmental impacts predicted and those impacts that actually occur. Auditing may also involve determining whether mitigation measures have been effective and whether the conditions attached to a project have been met.⁴⁰

³⁵J Ridl ' "IEM": Lip-service and Licence?' (1994) 1 *SAJELP* 61 at 70-71.

³⁶M Kidd 'The National Environmental Management Act and Public Participation' (1999) 6 *SAJELP* 21 at 22.

³⁷Ahmad and Sammy op cit n21 at 48-49; Sheate op cit n20 at 83 et seq.

³⁸Glasson et al op cit n2 at 172-177.

³⁹E L Hyman and B Stifel *Combining Facts and Values in Environmental Impact Assessment: Theories and Techniques* (1988) at 39.

⁴⁰Glasson et al op cit n2 at 192-194. Ref Canter op cit n7 at 637; Sheate op cit n20 at 111; and Ahmad and Sammy op cit n21 at 18-20.

Effective auditing and monitoring can provide a valuable data bank that may be useful in conducting future EIAs. The data bank enables EIA practitioners to learn from the teachings of experience. Consequently, time and resources devoted to future EIAs may be reduced.⁴¹

1.4.11 Sundry issues

It is of utmost importance that EIAs be conducted with diligence and discipline. It is instructive to respect time limits as decision-makers may not wait to eternity to place their stamp of approval or disapproval on a development proposal. Inordinate delay may ultimately buttress sceptics' view that EIA is merely a stumbling block to development. In this regard, it may be observed that it is easier to achieve discipline and diligence if the EIA is undertaken by competent personnel. Therefore, the choice of EIA personnel is a crucial preliminary exercise.

1.5 Objectives of EIA

An inescapable conclusion from a study of the nature of EIA is that the EIA process is complicated. This complication, however, is no indication of what EIA strives to accomplish at the end of the day: its objectives are far from complex. Biswas lists the following seven points as constituting the objectives of EIA:

- to identify adverse environmental problems that may be expected to occur;
- to incorporate into the development action appropriate mitigation measures;
- to identify the environmental benefits and disbenefits of the project, as well as its economic and environmental acceptability to the community;
- to identify critical environmental problems which require further studies and/or monitoring;
- to examine and select the optimal alternative from the various relevant options available;
- to involve the public in the decision making process related to the environment; and
- to assist all parties involved in development and environmental affairs to understand their roles, responsibilities and overall relationships with one another.⁴²

All these points are essentially saying three things. First, the EIA process is an aid to decision-making. In itself the process does not decide whether the proposed project will go

⁴¹Glasson et al op cit n2 at 192.

⁴²Biswas and Geping op cit n7 at 193.

ahead or not. EIA simply highlights the likely costs of particular courses of action, with the environment as the touchstone. Secondly, EIA assists in the designing of development projects. The environmental problems EIA points out and the alternatives it suggests regarding location, size, operation, etc, may be used by the project proponent to modify the project so as to overcome or reduce the negative environmental impacts and avoid unnecessary expense. Thirdly, it is an indispensable tool for sustainable development. Since continued economic progress depends on a supportive environment, the EIA reveals beforehand the likely harm to the environment and advises alternatives which, when taken into account in decision-making, ultimately lead to the preservation of environmental capacity.⁴³

Even though these objectives paint the picture that EIA is advantageous, perceptions among developers vary. While some appreciate its advantages, it appears that others regard it as an exercise in futility. This latter attitude seems to have dominated for some time the minds of developers in Southern Africa as may be evident from the following historical survey of EIAs in the region.

1.6 EIAs in Southern Africa: a brief history

Shortly after the USA enacted NEPA, EIA provisions began to appear in developing countries' legislation, most (if not all) of these states being non-African. Although there may have been some consciousness in the 1970s about the need to incorporate EIA requirements into legislation in Southern Africa, little was done. EIAs undertaken and promoted locally in the 1970s in some parts of the region (e.g. in South Africa) were purely voluntary. It was only in the 1980s that the EIA cause made significant headway, with the introduction of legislative measures. By contrast, the 1990s witnessed a proliferation of EIA legislation, guidelines and other provisions.⁴⁴ Where there was no legal obligation to conduct EIAs, international lending institutions compelled countries to undertake ad hoc EIAs. For instance, in 1992 three projects presented to the World Bank - the Malawi Power V, Lesotho Highlands Water and Mauritius Sugar Energy Development projects - required full EIAs. In addition, EIAs were undertaken for the Mozambique Agriculture Services Rehabilitation project and the Tanzania Forest Resources Management project.⁴⁵

⁴³Cf Glasson et al op cit n2 at 8-9.

⁴⁴G Paoletto 'The Role of EIA,...Comparing National Approaches to EIA' <http://www.gdrc.org/uem/eia/lecture-notes.html>

⁴⁵World Bank *The World Bank and the Environment: Fiscal 1992* (1992) at 36.

Malawi did not have EIA legislation until the 1990s. Towards the end of 1992 the country started developing a National Environmental Action Plan (NEAP) with aid from the World Bank. The NEAP document, formally launched in December 1994 by Vice President Justin Malewezi, identified areas where action was required to facilitate the plan's implementation. One of these identified areas was the formulation of guidelines for EIAs and the institution of a mechanism for their implementation. In 1995 a draft Environment Management Bill was discussed at a national workshop and submitted to Parliament for enactment. Draft EIA guidelines and procedures were also discussed at a national workshop.⁴⁶ In August 1996 the Bill became law as the Environment Management Act No. 23 of 1996. Part V of the statute makes provision for the carrying out of EIAs. These provisions are supported by the approved EIA guidelines.

In Mozambique the EIA process was introduced in 1994 due to pressure from increased foreign investment after the end of the civil war. Law Number 3/93 and its regulations of 24 June 1993 require that an EIA be conducted during the design, implementation and operational phases of any investment projects. In addition, Law Number 97 of 1997 provides for environmental licensing, minimum contents of an EIA report and environmental auditing. The statute indicates that the detailed formalities or procedures of EIA will be the subject of subsequent legislation. Taibo reports that these formalities or procedures are not yet in place.⁴⁷

In contrast South Africa has been more active. Environmental assessment has been practised extensively (especially for large projects) for well over twenty years, the greater part of this period being at a time when there was no EIA legislation.⁴⁸ The formalisation process began in 1984 when the Council for the Environment set up a committee which, five years later, proposed to the Council that South Africa adopt a procedure known as Integrated Environmental Management (IEM). EIA is an essential component of the IEM process.⁴⁹ Shortly after this proposal, the Environment Conservation Act 73 of 1989 was passed. This Act provided for mandatory EIAs in respect of activities specified by the Minister responsible for environmental affairs. However, it was only in 1997 that environmental assessment

⁴⁶Z M Vokhiwa 'Malawi: National Environmental Action Plan and Support Programme' in A Wood (ed) *Strategies for Sustainability: Africa* (1997) 81 at 83-84 and 90.

⁴⁷'The Role of Environmental Impact Assessment in Development Projects' in B Ferraz and B Munslow (eds) *Sustainable Development in Mozambique* (1999) 169 at 170-173.

⁴⁸Glazewski op cit n5 at 269 and 279.

⁴⁹The Department of Environment Affairs later reviewed the Council's IEM procedure and published the revised version in 1992: Ridl op cit n35 at 64; B Peckham 'Environmental Impact Assessments in South African Law' (1997) 4 *SAJELP* 113 at 119-120; M Kidd *Environmental Law: A South African Guide* (1997) at 164.

regulations were promulgated,⁵⁰ indicating, *inter alia*, the nature of projects to be made subject to EIA. Subsequently, the National Environmental Management Act 107 of 1998 was enacted. This Act contains EIA provisions in a chapter entitled 'Integrated Environmental Management'. Apart from these, there are sectoral pieces of legislation that incorporate the EIA process.⁵¹ At present EIA is a common practice in the 'rainbow nation'.

The publication by South Africa's Department of Environment Affairs in 1992 of *The Integrated Environmental Management Guideline Series* seems to have provided Namibia, a former trust territory of South Africa which gained independence in 1990,⁵² with the impetus to adopt the IEM philosophy.⁵³ An Environmental Assessment Act⁵⁴ was enacted and in August 1994 Namibia's Cabinet passed Resolution 16.8.94/002 establishing Namibia's Environmental Assessment Policy. The policy sets out an environmental assessment procedure and a list of policies, programmes and projects which by their nature require environmental assessment.⁵⁵

A similar policy was declared by the government of Zimbabwe at around the same time.⁵⁶ It was apparently influenced by the country's National Conservation Strategy (NCS). The NCS document was prepared in 1986, published in 1987 and launched by President Robert Mugabe. In 1990 the government established a new Ministry of Environment and Tourism with an Environmental Planning and Coordination Unit responsible for the implementation of the NCS. In 1991 Zimbabwe made a policy commitment, in its second National Five-Year Plan (1991-95), to conducting EIAs before major development projects could proceed. The Environmental Planning and Coordination Unit took up the task of developing EIA legislation. At the time of writing, such legislation has not been enacted⁵⁷. Only the above-mentioned EIA policy of 1994 is in place.

⁵⁰R 1182, R 1183 and R 1184 in *Government Gazette* No 18261 of 5 September 1997.

⁵¹Ridl op cit n35 at 62-63; Glazewski op cit n5 at 279-280.

⁵²<http://www.africanet.com/africanet/country/namibia/home.htm#History>

⁵³Preambular paragraph 5 of Namibia's Environmental Assessment Policy states: 'Environmental assessments are a key tool, amongst others, to further the implementation of a sound environmental policy which strives to achieve Integrated Environmental Management (IEM)'. A close examination of the country's environmental assessment procedure reveals evidence of considerable borrowing from the South African IEM philosophy.

⁵⁴Referred to in paragraph 6 of Namibia's Environmental Assessment Policy (Cabinet Resolution 16.8.94/002).

⁵⁵UNEP/UNDP *Compendium of Environmental Laws of African Countries* Volume I: Framework Laws and EIA Regulations (1997) (1997 Supplement to Volume I 1996 edition) at 135-140.

⁵⁶Paoletto op cit n44; cf B Breetzke 'EIA Guidelines for Lesotho' <http://www.saep.org/sadc/country/lesotho/lesweb1.html>

⁵⁷M Mukahanana, A Hoole, M Monemo, E Mhaka and S Chimbuya 'Zimbabwe: National Conservation Strategy' in Wood op cit n46 171 at 173, 178, 179 and 184.

Botswana's own National Conservation Strategy (NCS) also seems to have opened the way for EIAs. With technical assistance from the International Union for the Conservation of Nature and Natural Resources (IUCN), Botswana prepared an NCS that was adopted by Parliament in 1990. Its areas of focus include the minimisation of harmful environmental side-effects arising from natural resource use, the development of new sustainable uses of natural resources and increasing public participation in the improvement of the environment. It will be noted that all of these are EIA concerns. Two years later (1992) the process of enacting EIA legislation began when the salient features of the legislation were considered and agreed upon. These efforts have not yet matured into law.⁵⁸

In Lesotho EIAs are largely a development of the 1990s. The World Bank assisted Lesotho in preparing a National Environmental Action Plan in 1988, which plan was reviewed in 1995 with the help of the United Nations Development Programme. In seeking to implement the revised edition, officially known as the Agenda 21 National Action Plan, the government planned to establish environmental units in line ministries to be responsible for, among other things, the preparation and supervision of EIAs of development projects in their ministries. In 1996 a framework environmental management law was drafted. Shortly afterwards EIA Guidelines were prepared in such a way as to conform with the proposed framework law. Both are currently awaiting approval.⁵⁹

Swaziland enacted the Swaziland Environment Authority Act in 1992, which vested in the Minister responsible for environmental protection the power to make regulations, in consultation with the Swaziland Environment Authority, for the introduction of EIAs on development projects.⁶⁰ The Minister promulgated the regulations in 1996.

In 1991 Mauritius passed the Environment Protection Act which has a detailed chapter on EIAs. Similarly the Seychelles incorporated EIA provisions in its Environment Protection Act of 1994.⁶¹ With regard to Angola, Law Number 5/98 of 1998 sets out rudimentary aspects of EIA.

⁵⁸S C Monna 'Botswana: National Conservation Strategy' in Wood op cit n46 1 at 3, 6 and 8.

⁵⁹A Sekhesa 'Lesotho: National Environmental Action Plan' in Wood op cit n46 71 at 73-77 and 80; Breetzke op cit n56.

⁶⁰Section 18 of the Act.

⁶¹UNEP/UNDP *Compendium of Environmental Laws of African Countries* Volume I: Framework Laws and EIA Regulations (1996) at 237-265 and 293-305.

In the case of Zambia, a wide range of activities, such as EIAs and training in EIAs, began when the country's NCS document was approved by government in 1985. In 1989 IUCN provided technical assistance on project specific activities like EIAs. IUCN also provided an adviser on EIA to Zambia's National Commission for Development Planning to carry out training in, *inter alia*, environmental assessment. The following year saw the passing of the Environmental Protection and Pollution Control Act (Act No. 12 of 1990). The Act created the Environmental Council which was mandated to identify projects or types of projects, plans and policies for which EIAs were necessary and to undertake, or to request others to undertake, such EIAs for consideration by the Council.⁶² A recent sectoral environmental statute also calls for EIAs.⁶³ Between 1992 and 1994 the World Bank demanded that a National Environmental Action Plan (NEAP) be prepared as a pre-condition for continued funding from the bank's International Development Association loan facility. The NEAP process was then undertaken, guided by three crucial principles one of which was that all major projects be subject to EIA.⁶⁴ EIA regulations were promulgated in 1997.

Tanzania has no general EIA regulations or guidelines. The EIAs that have been conducted in the country so far have largely been instigated by development aid agencies or banks and some sections of the government. On the latter, the Tanzania National Parks Authority and the electricity supply commission have developed their own EIA procedures.⁶⁵ It is likely that EIA legislation will be put in place in future since the country's National Environmental Action Plan has identified EIA as one of the institutional arrangements needed for the implementation of the plan.⁶⁶

It may be observed from the preceding historical exposition that EIA only became 'popular' in the greater part of the region in the 1990s. However, the reference to EIA being 'popular' may be misleading. Bearing in mind that in about half of the region there was no binding EIA legislation and that EIA practice was not as efficient as it ought to be, it is more revealing to talk of increased awareness about EIAs in the region in the last decade. As will be elaborated on below, the region did not make great use of EIAs. One way of combating this poor

⁶²Section 6(2)(j) of the Act.

⁶³The Zambia Wildlife Act No 12 of 1998: http://zamlil.zamnet.zm/comment/zlj/legsums/p98_12.htm

⁶⁴L Aongola, S Bass and P Chipungu 'Zambia: National Conservation Strategy and National Environmental Action Plan' in Wood op cit n46 147 at 152, 161, 169 and 170.

⁶⁵C George 'Environmental Assessment in Sub-Saharan Africa' <http://www.art.man.ac.uk/eia/N117afri.htm>

⁶⁶B L M Bakobi, T Lweno and C K Tandari 'Tanzania: National Conservation Strategy for Sustainable Development and National Environmental Action Plan' in Wood op cit n46 115 at 129-132.

performance might be to establish regional coordination of the EIAs. Since all the states⁶⁷ in Southern Africa are members of the Southern African Development Community and the Community is a regional integration organisation, the Community could well be the appropriate engine for such coordination. The premises for this submission will become clearer in later parts of this paper. For the time being, a few introductory remarks will be made about the Community.

1.7 The Southern African Development Community (SADC)

On 1 April 1980 the Heads of State or Government of Angola, Botswana, Lesotho, Malawi, Mozambique, Swaziland, Tanzania, Zambia and Zimbabwe met in Lusaka, Zambia and adopted a declaration entitled *Southern Africa: Towards Economic Liberation*. It was the founding document of the Southern African Development Coordination Conference (SADCC). The aim of the Conference was ‘to pursue policies to facilitate the economic development and independence of these countries from South Africa, and to achieve the integrated development of the region’.⁶⁸ By 1992 it was no longer necessary to exclude South Africa from the region’s politics and economics on the basis of apartheid, significant changes having occurred in that country. Coupled with peace initiatives in Angola and Mozambique, and the movements toward multiparty democracy in countries like Malawi and Zambia, it became imperative for the SADCC to reform in order for it to meet adequately the changing demands and challenges of the region. On 17 August, 1992 an opportunity was taken for the SADCC to free itself from the shackles of the politics of exclusion. Member countries of the SADCC adopted a declaration and signed a treaty establishing the Southern African Development Community (SADC).

In the declaration⁶⁹ the Heads of State or Government of the independent states of Southern Africa committed themselves and their governments to the establishment of the SADC, in order to promote regional economic welfare and collective self-reliance and integration, in the spirit of equity and partnership. They noted certain achievements of the SADCC, the greatest perhaps being the forging of ‘a regional identity and a sense of common destiny among the countries and peoples of the region’. They also pointed out that the SADCC had failed to achieve economic integration significantly. To overcome this slow progress, it was decided that the new SADC should adopt relevant strategies, one of which was to dwell on ‘food security, natural resources and environment’. It was declared that policy measures

⁶⁷Except Madagascar.

⁶⁸R H Thomas ‘Introductory Note’ 32 I L M 116 (1993) at 117.

⁶⁹32 I L M 267 (1993). The title of the declaration is *Towards a Southern African Development Community*.

should be taken and mechanisms instituted to protect the environment and to manage natural resource use with the aim of achieving intra- and inter-generational equity.

The Treaty of the Southern African Development Community⁷⁰ toed the same line. The objectives of SADC were stated to be, among other things, ‘to achieve development and economic growth, alleviate poverty, enhance the standard and quality of life of the peoples of Southern Africa and support the socially disadvantaged through regional integration’; and ‘to achieve sustainable utilisation of natural resources and effective protection of the environment’.⁷¹ Further, members agreed to cooperate in several listed areas which included the areas of natural resources and the environment.⁷²

The organisation has six institutions: the Summit of Heads of State or Government, the Council of Ministers, Commissions, the Standing Committee of Officials, the Secretariat and the Tribunal. The Summit is the central policy-making body. It adopts legal instruments for the implementation of the provisions of the treaty; elects a chairman;⁷³ decides on the creation of commissions, other institutions, committees and organs as required; and appoints the Executive Secretary.⁷⁴

The Secretariat is the principal administrative institution of the organisation. It is responsible for strategic planning and management of SADC programmes; implementation of the decisions of the Summit and Council; organisation and management of SADC meetings; financial and general administration; representation and promotion of SADC; and coordination and harmonisation of the policies and strategies of member states.⁷⁵ The Secretariat is headed by the Executive Secretary.⁷⁶

The rest of the institutions are generally supportive of these two main organs.

⁷⁰32 I L M 116 (1993).

⁷¹Article 1(a) and (g) of the Treaty.

⁷²Article 21(3)(e) of the Treaty.

⁷³The current chairman is President Bakili Muluzi of Malawi

⁷⁴Articles 9 and 10 of the Treaty.

⁷⁵Article 14 of the Treaty.

⁷⁶<http://www.sadc.int/>. The position of Executive Secretary is presently held by Dr P Ramsamy.

Membership of SADC currently stands at fourteen. Apart from those countries listed at the beginning of this segment, members include the Democratic Republic of the Congo, Mauritius, Namibia, the Seychelles and South Africa. No state is permitted to enter any reservation to its membership⁷⁷ and decisions of all the institutions of the organisation are by consensus unless otherwise provided in the treaty.⁷⁸

In the next Part the environments of the SADC member states will be examined.

PART TWO

THE SOUTHERN AFRICAN ENVIRONMENT

2.1 General

The primary obstacle that must be surmounted in any informed discussion of the environment is the discovery of the import of the term 'environment'. This task has for a long time exercised the minds not only of scholars but also of professional persons: from the devoted academic⁷⁹ to the legislative draftsman⁸⁰ to the learned judge.⁸¹ The result has been that 'environment' means different things to different people.⁸² Definitions range from Einstein's conception of 'environment' as 'everything that isn't me'⁸³ to the restricted formulation of 'environment' as the components of nature.⁸⁴

⁷⁷Article 8(4) of the Treaty.

⁷⁸Article 19 of the Treaty.

⁷⁹For example M A Rabie 'Nature and Scope of Environmental law' in R F Fuggle and M A Rabie (eds) *Environmental Management in South Africa* (1992) at 83 et seq.

⁸⁰Numerous pieces of legislation define 'environment', for example Malawi's Environment Management Act No 23 of 1996 (section 2) and South Africa's National Environmental Management Act 107 of 1998 (section 1).

⁸¹For example Mason CJ, Connolly, G N Williams, Brennan, Deane, Gaudron and McHugh JJ in the Australian case of *The Crown v Murphy* (1990) 64 A L J R 593.

⁸²R F Fuggle 'Environmental Management: an Introduction' in Fuggle and Rabie op cit n1 at 4; D E Fisher *Environmental Law: Text and Materials* (1993) at 4 and 9 seems to agree with Fuggle on this point.

⁸³Quoted in S Ball and S Bell *Environmental Law* 2ed (1991) at 4.

⁸⁴Rabie op cit n1 at 86. W A Tilleman (ed) *The Dictionary of Environmental Law and Science* (1994) at 98-99 collects 16 definitions of environment.

For present purposes, the guiding factor in defining ‘environment’ is the subject under study, namely EIA. In this regard, it was pointed out in the previous Part that one of the vital steps in the EIA process is the conducting of an environmental baseline study that establishes the state of the environment of an area prior to the implementation of a proposed activity. It was further stated that this inventory is compiled from a checklist of descriptors for the physical-chemical, biological, cultural, and socioeconomic factors. In light of this, ‘environment’ shall be regarded in this Part as signifying the physical-chemical, biological, cultural, and socioeconomic elements of the Southern African region. However, due to space constraints it is not possible to cover all of these aspects nor can any one of them be discussed at length. The approach adopted is to consider at least some of them in the context of each country in the region. Thereafter common trends will be noted.

2.2 Botswana

A land-locked state with an area of about 582 000 square kilometres,⁸⁵ Botswana has poor soils. Over half of it is covered by infertile Kalahari sand (‘sandveld’). An undulating plain with upstanding hill massifs (comprising what is termed the ‘hardveld’) sprawls across its eastern side. Arable land is limited, causing land pressure in the smaller districts. The climate is semi-arid, with annual rainfall varying between 250mm and 600mm. The Okavango and Chobe rivers are the largest surface water sources. The Limpopo, Molopo and Zambezi rivers run along its borders. Some 80% of the human and animal populations depend on groundwater.

Botswana is blessed with a rich variety of wildlife: about 1000 species, excluding insects. National parks and game reserves occupy approximately 17% of the land. Chobe National Park keeps 10% of Africa’s elephants.

The population mostly engages in pastoralism and crop production. Cattle, sheep and goats are the principal livestock. Arable agriculture mainly dwells on sorghum, millet and pulses.

Minerals are in plentiful supply. At present, diamond, nickel and copper mines are in operation. Minerals not yet exploited include coal, talc, asbestos, kyanite, manganese, agates, chromite, iron, lead, limestone, uranium and zinc.

⁸⁵<http://www.sadc.int/>

Environmental problems have not spared the country. Drought has been persistent, since at least the 1840s when Dr David Livingstone, who was living at Kolobeng near Gaborone, wrote that due to famine the people had, for six months prior to January 1849, survived entirely on locusts.⁸⁶ Land degradation is evident, caused by overgrazing and inappropriate agricultural practices leading to soil erosion. Pollution is increasingly taking its toll: lack of suitable waste disposal sites and inadequate disposal legislation, emission of effluents and aerosols from industrial plants, and contamination of water supplies by sewage, industrial and agricultural waste.⁸⁷

2.3 Angola

Angola has six different geomorphological regions. Vegetation is dominated by forest and shrub savanna. Inland water resources include many lakes and rivers, spread throughout the country. The climate is tropical but locally influenced by altitude. Annual rainfall exceeds 1400mm in some parts. Cassava, peanuts, palm oil, castor oil, coffee, cotton, sugarcane, maize, sisal, sunflower, sorghum and wheat are the main crops but agricultural activity has been disrupted by the civil war between Angolan government forces and UNITA rebels.

The state has six national parks and several smaller nature reserves. The government has had no control over the hunting of animals. Consequently, by December 1997 the country was believed to have only 20 elephants, 5 lions, 30 red buffalo and 20 manatees.⁸⁸ Fish stocks off its shores are reported to be decreasing rapidly due to lack of government policing.

The economy is driven by petroleum products and diamonds. Fourteen other minerals are available but are mostly not mined.

Ravaged by protracted civil strife, Angola's environmental care programmes are in shambles. Problems are many: general collapse of urban environmental health facilities (for example, defective sewage and surface water drainage systems), pollution from diamond mining and

⁸⁶ R K Hitchcock 'The Traditional Response to Drought in Botswana' in *Symposium on Drought in Botswana* (1978) at 92 referred to in T Msengezi and M Chenje 'The Climate Factor' in M Chenje and P Johnson (eds) *State of the Environment in Southern Africa* (1994) at 90.

⁸⁷ J W Arntzen and E M Veenendaal *A Profile of Environment and Development in Botswana* (1986) at 4-30; S Moyo, P O'Keefe and M Sill *The Southern African Environment: Profiles of the SADC Countries* (1993) at 32-63; <http://www.sadc.int> ; <http://www.gov.bw>

⁸⁸ <http://www.angola.org/NEWS/MISSION/december97/confer.html>

the oil industry, poaching, serious deforestation, prolonged periods of drought in the south, declining soil fertility and general land degradation caused by, *inter alia*, soil erosion.⁸⁹

2.4 Democratic Republic of Congo (DRC) - (formerly Zaire)

DRC's topography comprises a low-lying plateau forming the vast central basin, with mountains in the east. The lowest altitudinal point is at sea-level (Atlantic Ocean) and the highest point is 5110m (Mount Stanley). Only 3% of the land is arable. Water resources include parts of Lakes Tanganyika and Mweru, and the river Congo. The climate is tropical: DRC sits on the Equator. 77% of the land is forest and woodland.⁹⁰ The tropical rainforests 'represent one of the world's great remnant blocks of closed canopy habitat'.⁹¹

The war that has raged in DRC from 1994 until recently has had a devastating impact on the environment. The United Nations reports⁹² that soldiers have been killing elephants and buffalo, and that these and other wild animals, for example okapis and gorillas, are dwindling in numbers. Protected areas have been invaded often.

DRC is rich in minerals. At least 15 have been identified, including diamonds and gold. It also has petroleum. Some of its agricultural products are coffee, palm oil, rubber and quinine.⁹³

Environmental problems include deforestation, periodic drought, volcanic activity, poaching, water pollution and soil erosion.⁹⁴

2.5 Lesotho

⁸⁹Moyo et al op cit n9 at 5-31; <http://www.sadc.int/>; <http://www.angola.org/news/newsdetail.cfm?NID=3646> ; <http://www.angola.org/news/newsdetail.cfm?NID=3647>

⁹⁰<http://www.odci.gov/cia/publications/factbook/geos/cg.html>

⁹¹<http://carpe.umd.edu/>

⁹²<http://www.woza.co.za/eco/news/apr01/war18.htm>

⁹³<http://www.wrm.org.uy/bulletin/34/CongoDR.html> ; <http://www.odci.gov/cia/publications/factbook/geos/cg.html>

⁹⁴<http://www.wrm.org.uy/bulletin/46/CongoDR.html> ; <http://www.odci.gov/cia/publications/factbook/geos/cg.html>

Popularly known as the Mountain Kingdom, Lesotho's terrain is characterised by high altitudes reaching as high as 3482m. As a result arable land is scarce, a problem exacerbated by the small size of the country. The climate is subtropical in lower elevations and temperate in highlands. Average annual rainfall stands at 730mm with variations regionally. Water is in abundance, principally from rivers. The predominant type of vegetation is grassland which often includes forbs and scattered shrubs and trees.⁹⁵

Lesotho does not have much fauna. The largest species available are small antelope, bush pigs and warthogs. This possibly explains the paucity of protected areas declared.⁹⁶

No exploitable minerals exist. The five major agricultural products (maize, wheat, sorghum, peas and beans) fail to have a noticeable effect on the economy. Moyo et al⁹⁷ report that the kingdom's economic base largely depends on remittances from South African mines where a significant percentage of its population is employed.

Several environmental problems have been identified: soil erosion caused, *inter alia*, by overstocking of livestock on grazing lands, and urban pollution which sometimes takes the form of poor sewerage and waste disposal facilities resulting in serious health problems arising from, *inter alia*, contamination of underground water used for drinking.⁹⁸

2.6 Malawi

Malawi has three main topographical regions: rift valley, plateau and mountain. Its soils are very fertile, enabling agriculture, the mainstay of its economy, to thrive. Principal crops include tobacco, tea, coffee, cotton, groundnuts, sugarcane and maize. The climate varies from tropical to subtropical. Annual rainfall ranges from 375mm to 1600mm. Surface water resources are extensive: five lakes and numerous rivers. Groundwater is also available in

⁹⁵S L Hilty (compiler) *Draft Environmental Profile of the Kingdom of Lesotho* (1982) at 3-11 and 52; Moyo et al op cit n9 at 65 and 68.

⁹⁶G Witzsch and D Ambrose *Lesotho Environment and Environmental Law* (1992) at 71-73; Hilty op cit n17 at 64-66.

⁹⁷Op cit n9 at 65, 71, 77 and 80.

⁹⁸Moyo et al op cit n9 at 69, 73, 78 and 79; G Schmitz 'Systems of erosion and sedimentation and the landscape of Lesotho' in G Schmitz (ed) *Lesotho Environment and Management* vol 1 (1984) at 7-28.

significant quantities. Vegetation types include - but are not limited to - savannah woodlands, montane forests and swamp grasslands. Faunal resources are considerable. Fish stocks are adequate for the domestic market and there are several protected areas.

Minerals have recently been discovered: coal, phosphates, sulphur, gypsum, glass and iron sulphides, just to mention a few. However, exploitation has been minimal.

Environmental problems include deforestation, soil erosion, prolonged drought spells caused by erratic rainfall, and general land degradation due to land pressure and consequent cultivation of marginal land. Water pollution from sedimentation has also been noted.⁹⁹

2.7 Swaziland

The kingdom of Swaziland has four major ecological regions: the Highveld, Middleveld, Lowveld and Lubombo escarpment and plateau. Leaching, thin soils and steep slopes apparently make only a small section of its area good arable land. The climate varies significantly, ranging from subtropical to near humid to humid, near-temperate. Normal average annual rainfall is about 1000mm, with regional variations. Water resources comprise natural bodies (mainly rivers and springs) and man-made bodies (for instance, dams). Its four major river basins are shared with Mozambique or South Africa or both.

Three main veld types occur in the country: forest, savanna and grassveld. Samples of faunal species available are elephant, rhinoceros, hippopotamus, leopard, birds and fish. Mining centres on asbestos, coal and diamonds. Agriculture is twofold: crop production (sugarcane, fruit, cotton and maize) and animal husbandry (cattle and poultry).

Swaziland has its share of environmental problems: overgrazing, soil erosion, soil acidity, deforestation, general land degradation, and pollution. Pollution takes a number of forms: urban air pollution, air pollution from asbestos and coal mining, contamination of water resources by agricultural inputs, industrial waste and solid waste from hotels and private houses.¹⁰⁰

2.8 Mozambique

⁹⁹R G Varady (compiler) *Draft Environmental Profile of Malawi* (1982) at 64-105; Moyo et al op cit n9 at 92-111.

¹⁰⁰Science and Technology Division Library of Congress *Draft Environmental Profile of Swaziland* (1980) at 26-40; Moyo et al op cit n9 at 195-222.

The soils of Mozambique are generally rich in nutrients. Climatic conditions range from very hot and humid to almost temperate. Annual average rainfall runs between 300mm and 2000mm. Surface water comes mainly from rivers: the state shares 8 of its major rivers with neighbouring countries. Three principal aquifers provide groundwater. The vegetation is of three types: dense forest, permeable forest and savanna.¹⁰¹ Mangroves grow along the coast.

Mozambique has four national parks, four game reserves, and a large protected area in Gaza Province. During the past civil war there was trafficking in ivory and indiscriminate slaughter of wild animals. Some of its present faunal resources are elephant, kudu, small antelope, baboons, turtles, prawns and fish.¹⁰²

Minerals have not been exploited widely for historical reasons. Minerals available include gems, copper, coal, bentonite, gold, marble, garnet and bauxite. Among the crops grown are coffee, tea, cotton, maize, cashew-nut and coconut. Livestock is raised in some parts of the country.

Erosion, salinisation and alkalinisation of soils, deforestation, desertification, drought, and urban, industrial and mining pollution are some of the identified environmental problems.¹⁰³

2.9 Tanzania

Tanzania is a land of contrasts. Its surface area is split by lowlands and highlands; from the Rift Valley to the spectacular Kilimanjaro massif. About 50 000 square kilometres is under water, especially in Lakes Victoria, Tanganyika, Rukwa, Eyasi, Manyara and Natron. Four of its major rivers drain into the Indian Ocean. Rainfall ranges from below 600mm to over 1400mm. The climate varies greatly on account of altitude but it is generally tropical. Vegetation depends on topography, climate and soil conditions. Types include rainforest, savannah woodland, open grassland and steppe.

Wildlife conservation is extensive. There are 14 national parks and over 50 game reserves, protecting species of wild animals such as elephant, rhino, leopard, buffalo and zebra. Fish is also available. Wildlife contributes to the economy in the form of tourism, although

¹⁰¹ I Chutumia 'Managing Water Resources in the South' in B Ferraz and B Munslow (eds) *Sustainable Development in Mozambique* (1999) at 175-176.

¹⁰² A Madope 'Community Participation in Wildlife Management' in Ferraz and Munslow *ibid* 216 at 221; Moyo et al *op cit* n9 at 127, 148 and 151; <http://www.sadc.int/>

¹⁰³ Moyo et al *op cit* n9 at 126-152.

modestly. Major contributors to the economy are agriculture (livestock, cloves, coffee, cotton, sisal, etc) and mining (natural gas, coal, oil, iron, diamonds, gold, etc).

Environmental problems include overgrazing, soil erosion, deforestation, river siltation and general land degradation. Pollution takes three main forms: air and water pollution from factories, inefficient and unserviced sewage systems and improper solid waste disposal practices.¹⁰⁴

2.10 Zambia

Much of Zambia lies on the Central African Plateau with elevations from 900m to 1530m above sea-level.¹⁰⁵ Of its seven types of soil, fersiallitic and ferrallitic soils are the most fertile and they are widely cultivated for crops such as maize, cassava, cotton and oil seeds. Climate is generally tropical. Long-term averages of rainfall range from about 700mm to approximately 1400mm. The country depends almost equally on surface water and groundwater. The former is sourced from Lakes Tanganyika, Mweru, Bangweulu, Kariba and Mweru-Wantipa, and from several rivers including Kafue, Zambezi, Luangwa, Chambeshi and Luapula.¹⁰⁶

Wildlife is in abundance. The vegetation falls into three broad categories: forest, woodland and grassland. Woodland covers four-fifths of the state, the dominant species being *miombo*. In its lakes, swamps and rivers over 300 different species of fish live. Other faunal resources include elephant, hippopotamus, zebra, wildebeest: the list goes on.¹⁰⁷

Mineral exploitation in Zambia has taken place for a long time. The first copper mine commenced operations in 1931. By 1992 exploitable minerals were copper, lead, zinc, manganese, iron, coal, mica, and small quantities of precious and semi-precious stones (except diamonds).

¹⁰⁴ *Jambo* Issue No 3/00/01 at 18-19; Moyo et al op cit n9 at 234-262.

¹⁰⁵ M W Speece (compiler) *Draft Environmental Profile of Zambia* (1982) at 3.

¹⁰⁶ Speece op cit n27 at 30-38.

¹⁰⁷ Speece op cit n27 at 81; Moyo et al op cit n9 at 285-290.

Zambia has a litany of environmental problems: soil erosion, soil acidity, deforestation, overgrazing, eutrophication, water pollution from mining activities, and air, water and solid waste pollution from industry.¹⁰⁸

2.11 Zimbabwe

Characterised by a gently undulating land surface that is often broken by hills, Zimbabwe's altitude ranges from 197m to 2592m. Two of its eight soil groups (siallitic and vertisols) are rich in nutrients. The climate and weather are affected by the Inter-Tropical Convergence Zone. There are three seasons: 'hot dry', 'warm to hot wet', and 'cool to warm dry'. National mean annual rainfall is pegged at 685mm. Zimbabwe does not have large natural lakes, only small wetlands and big border rivers. However, it stores about 5000 million cubic metres of water in approximately 8000 dams. Groundwater, drawn up by boreholes, plays the important role of meeting domestic needs. *Miombo* and *mopane* woodlands are the predominant vegetation types.

The country teems with fauna: numerous species of mammals, reptiles, fish, birds and insects. Its elephant population is so huge that elephants have, apart from being a valuable attraction, acquired the status of a nuisance. Kanhanga remarks, 'To say that we have too many elephants would be an understatement'.¹⁰⁹

Zimbabwe's mineral wealth consists of 40 minerals. Gold, asbestos, nickel and copper are among them.

Some of the state's environmental problems are inappropriate land-use systems, soil erosion, overgrazing, general land degradation, drought, reservoir siltation, eutrophication and urban solid waste and sewage pollution.¹¹⁰

2.12 Namibia

A significant portion of Namibia is desert: in the west the Namib desert stretches along the entire coastline, covering about 15% of the area. The Kalahari desert occupies the east and north-east. Arenosolic, lithosolic and weakly-developed soil types make up the pedology of

¹⁰⁸ Moyo et al op cit n9 at 278-283.

¹⁰⁹ Quoted by N Mungai 'Overrun with Elephants, Zimbabwe Demands Legal Ivory Sales' <http://ens-news.com/ens/jan2001/2001L-01-17-02.html>. At the material time (Retired) Brigadier E W Kanhanga was the acting director of Zimbabwe's Department of National Parks and Wildlife Management.

¹¹⁰ Moyo et al op cit n9 at 303-331.

the country. The climate is dry with annual rainfall averaging from less than 20mm to more than 700mm. Inland surface water is scarce, forcing Namibia to rely on border rivers: the Orange, Kunene, Kavango, Kwando-Linyanti-Chobe and Zambezi. Groundwater is limited and expensive to develop. Vegetation types include dry deciduous forest, woodland savanna, steppe and karoo shrub.

Wildlife conservation has been practised since 1907. Most of the wild animals of southern Africa are represented in Namibia's protected areas. Fishing grounds, off Namibia's coast, are rich in deep-water and pelagic fish, although the populations of some species have dwindled to near- extinction.

Mineral resources are considerable, major sectors being diamonds, uranium, metals, and industrial minerals. Agriculture is dominated by commercial livestock farming. Cattle and sheep are the most favoured animals.

Environmental problems include overgrazing and overstocking, deforestation, siltation, salinisation, erosion, general land degradation, overexploitation of water and fish resources, urban air pollution, mining air pollution, contamination of freshwater resources, bush encroachment, drought and poaching.¹¹¹

2.13 Mauritius

The island state of Mauritius is only 2040 square kilometres in extent and the highest point, Mont Piton, is just 828m above sea-level. About half of the country is arable land. Forest and woodland occupy 22% of the land surface. The climate is tropical, moderated by southeast trade winds.¹¹² Rainfall is believed to reach over 4000mm in the wettest part of the island.¹¹³

Mauritian wildlife is generally small. Conservation efforts were consolidated in the last decade with the establishment of the first national park, Black River Gorges, in 1994.¹¹⁴ Subsequently, a marine park was proclaimed at Baraclava.¹¹⁵ Considerable quantities of fish make their home in the country's waters.

¹¹¹ Moyo et al op cit n9 at 158-186.

¹¹² <http://www.sadc.int/> ; <http://www.odci.gov/cia/publications/factbook/geos/mp.html>

¹¹³ <http://ncb.intnet.mu/eurd/minenv/blkriver.htm>

¹¹⁴ <http://ncb.intnet.mu/eurd/minenv/blkriver.htm>

¹¹⁵ <http://ncb.intnet.mu/environ.htm>

Agriculture plays a significant role in the economy. It involves animal husbandry (cattle and goats) and crop production (sugarcane, tea, corn, potatoes, bananas and pulses).¹¹⁶

Some of its environmental problems are drought, cyclones, water pollution, solid waste related pollution, and deforestation.¹¹⁷

2.14 Seychelles

The archipelago of Seychelles comprises 115 islands, 76 of which are coralline and the rest granitic. The coralline islands lie at an average height of 1.5m above sea-level. The granitic islands rise from the sea to the altitude of 905m.¹¹⁸ Only 2% of its area is arable land. The climate is tropical marine with temperatures between 24 and 29 degrees centigrade all year round and rainfall averaging 2333mm (1972-1998).¹¹⁹ Freshwater is scarce on the coralline islands; on the granitic islands it is provided by surface streams. Its vegetation has been described as 'luxuriant and verdant'. However, some coralline islands have stunted vegetation.¹²⁰

Seychellois fauna has species that are rare or can be found nowhere else. A number of its islands are critical breeding grounds for turtles and birds. Its waters provide habitats for over 900 kinds of fish and about 42 % of its land has been set aside for national parks and animal reserves.¹²¹

Agriculture only received government attention after the 1991-2 Gulf War. Main crops are coprah, tea, cinnamon and banana. Until the war the economy relied heavily on tourism.¹²²

¹¹⁶ <http://education.yahoo.com/reference/factbook/mp/econom.html>

¹¹⁷ <http://ncb.intnet.mu/eurd/minenv/solidwst.htm> ; <http://www.odci.gov/cia/publications/factbook/geos/mp.html> ; <http://ncb.intnet.mu/eurd/minenv/blkriver.htm> ; <http://education.yahoo.com/reference/factbook/mp/econom.html>

¹¹⁸ <http://www.seychelles-online.com.sc/geography.html>; <http://www.odci.gov/cia/publications/factbook/geos/se.html>

¹¹⁹ http://www.seychelles.net/misdstat/_Geograp.../body_geography_climate_history_an.ht

¹²⁰ <http://www.seychelles-online.com.sc/geography.html> ; [http://lcweb2.loc.gov/cgi-bin/query/r?frd/cstdy:@field\(DOCID+sc0016\)](http://lcweb2.loc.gov/cgi-bin/query/r?frd/cstdy:@field(DOCID+sc0016))

¹²¹ [http://lcweb2.loc.gov/cgi-bin/query/r?frd/cstdy:@field\(DOCID+sc0016\)](http://lcweb2.loc.gov/cgi-bin/query/r?frd/cstdy:@field(DOCID+sc0016))

¹²² <http://www.seychelles.net/sej-info/seychelles.htm>

Environmental problems include water pollution as a result of extensive shipping, potential drought and destruction of vegetation by goats introduced to Aldabra islands. The destruction affects giant turtles which feed on the vegetation.¹²³

2.15 South Africa

A land of captivating sights such as the Table Mountain and the Wolfberg Arch,¹²⁴ South Africa's main feature is a high plateau that rises in all directions to a general level of about 1200m and culminates in an escarpment from where there is a great fall to the coast.¹²⁵ Over three-quarters of its area is devoted to agriculture.¹²⁶ Seventy-three forms of its soils have been identified.¹²⁷ The climate is arid and semi-arid, moderated by maritime air and topography.¹²⁸ Annual rainfall varies from year to year: it is less than 25mm in some parts and over 3000mm in others.¹²⁹ Water is scarce. Generally, surface runoff (rivers) is the principal source, complemented by groundwater.¹³⁰

The subcontinent is rich in flora and fauna. It has some 20 000 vascular plant species and several thousands of faunal species, which are partly conserved in its sophisticated network of protected areas.¹³¹

Mining is the driving force of the economy.¹³² Minerals include gold, copper, coal, platinum and iron ore. Marine resources also contribute to the economy.

¹²³[http://lcweb2.loc.gov/cgi-bin/query/r?frd/cstdy:@field\(DOCID+sc0016\)](http://lcweb2.loc.gov/cgi-bin/query/r?frd/cstdy:@field(DOCID+sc0016))

¹²⁴W Olivier and S Olivier *Exploring the Natural Wonders of South Africa* (1996) at 8 and 38.

¹²⁵B R Schulze *Climate of South Africa Part 8 General Survey WB28* (1965) at 1-2; R M Cowling and N J J Olivier 'Indigenous Plants' in Fuggle and Rabie op cit n1 212 at 213.

¹²⁶E Verster, W du Plessis, B H A Schloms and R F Fuggle 'Soil' in Fuggle and Rabie op cit n1 at 181.

¹²⁷Soil Classification Working Group *Soil Classification: a Taxonomic System for South Africa* 2ed revised (1991) at 44-47.

¹²⁸B R Schulze 'South Africa' in J F Griffiths (ed) *Climates of Africa* (1972) 501 at 503.

¹²⁹Ibid at 512; W R Thompson *Moisture and Farming in South Africa* (1936) at 66 et seq.

¹³⁰Department of Water Affairs (South Africa) *Management of the Water Resources of the Republic of South Africa* (1986) at 3.11; J H O'Keeffe, M Uys and M N Bruton 'Freshwater Systems' in Fuggle and Rabie op cit n1 277 at 278-279.

¹³¹W R Siegfried 'Preservation of species in southern African nature reserves' in B J Huntley (ed) *Biotic Diversity in Southern Africa: Concepts and Conservation* (1989) at 186 and 195; J du P Bothma and P D Glavovic 'Wild Animals' in Fuggle and Rabie op cit n1 250 at 252-256; Cowling and Olivier op cit n47 at 212-220.

¹³²B L S Franklin and M Kaplan *The Mining and Mineral Laws of South Africa* (1982) at 1.

South Africa has its environmental shortcomings: soil erosion,¹³³ insufficient and improper solid waste management facilities,¹³⁴ atmospheric pollution,¹³⁵ water scarcity, general land degradation due to soil compaction, crusting, acidification, salinisation and pathogenic infestation; drought,¹³⁶ eutrophication and sedimentation.¹³⁷

2.16 Common Trends

It should be apparent from the foregoing exposition that some aspects of the environment are common to all or most of the SADC countries. For instance, the climate is generally tropical with variations tending towards temperate conditions. Some wildlife species are shared. Drought, soil erosion, deforestation, pollution and general land degradation are common environmental problems.

Perhaps a better and more revealing way of looking at the common trends is to consider the ecological zones ('ecozones') of the region. McCullum¹³⁸ divides the region into ten ecozones: lowland tropical forest, afro-montane and temperate forest, grassland, savanna, nama-karoo, succulent karoo, desert, fynbos, transition between forest and savanna, and wetland. He demonstrates that these ecozones often traverse political frontiers. He states that a project that pushes against the processes of an ecozone can disrupt natural cycles and functions.¹³⁹

The environments of the SADC states are in many respects interdependent. The following three instances illustrate the point. Firstly, the continued integrity of Swaziland's environment depends to a certain extent on activities in neighbouring South Africa. The gases emitted in the Mpumalanga Highveld industries have the potential to harm Swaziland's

¹³³ M A Rabie 'South Africa' in *International Encyclopaedia of Laws: Environmental Law* vol 4 (2000) at 289 and 303.

¹³⁴ D A Lord, H W Ahrens, W C Tworeck and M A Rabie 'Solid Waste' in R F Fuggle and M A Rabie (eds) *Environmental Concerns in South Africa* (1983) 388 at 398-402 and 406-407; M Kidd *Environmental Law: A South African Guide* (1997) at 140; cf R Lombard, L Botha and M A Rabie 'Solid Waste' in Fuggle and Rabie op cit n1 at 493-522.

¹³⁵ E g in Mpumalanga Province (formerly known as Eastern Transvaal Province): P D Tyson, F J Kruger and C W Louw *Atmospheric Pollution and Its Implications In the Eastern Transvaal Highveld* (1988) passim; Kidd op cit n56 at 127.

¹³⁶ Rabie op cit n55 at 289.

¹³⁷ O'Keeffe et al op cit n52 at 283-293.

¹³⁸ 'Southern African Ecozones' in Chenje and Johnson op cit n8 at 65-81.

¹³⁹ *Ibid* at 65.

environment. In fact it is suspected that these gases contribute to the levels of urban air pollution in Swaziland.¹⁴⁰ Secondly, it has been observed that in order to safeguard the laying stocks of the loggerhead turtle on the beaches of the Maputo reserve in southern Mozambique, there is a need to protect the feeding grounds of the turtle in Tanzania.¹⁴¹ Thirdly, the region's river basin system provides a supreme illustration of environmental interdependence. Pallet¹⁴² states that 15 major rivers are shared between SADC states, the Zambezi being the largest. The utilisation of these rivers may result in drainage, flood control or water pollution problems.¹⁴³ If downstream countries are to reap the fruits of the rivers, upstream activity must be seriously watched. The drying up of the Mozambican section of the Inkomati basin as a partial consequence of the development and expansion of agriculture and industry in South Africa¹⁴⁴ serves as an instructive example.

In light of the foregoing, it is arguable that the identified common environmental trends do not warrant the adoption of independent and fragmented EIA systems in the SADC countries; on the contrary, they are more suited to a coordinated approach. The case is even stronger when the element of interdependence is brought into play, for it then becomes clear that having a coordinated EIA system in the region will facilitate the implementation of national development activities with less prejudice to the interests of other states. For instance, a coordinated EIA system will enable a Zambezi river basin management authority¹⁴⁵ more easily to avert potential conflict, or to deal with conflict, arising from proposed national development projects within the shared watercourse. Further, an integrated EIA system is more likely to ensure that all environmentally unsound projects are discarded in all countries sharing the Zambezi, since the countries will be using a similar environmental yardstick in determining whether a project should go ahead or not. This scenario may be contrasted with the case where every state has its own EIA system. In such a set-up it is more likely that some state(s) may permit an environmentally unsound project to proceed to implementation, with

¹⁴⁰Moyo et al op cit n9 at 214-215.

¹⁴¹Moyo et al op cit n9 at 148.

¹⁴²*Sharing Water of Southern Africa* at 71 as referred to in J Glazewski *Environmental Law in South Africa* (2000) at 63.

¹⁴³T Maluwa 'Towards an internationalisation of the Zambezi River Regime: the role of international law in the common management of an international watercourse' (1992) 25 *CILSA* 20 at 21.

¹⁴⁴Chutumia op cit n23 at 177.

¹⁴⁵One of the authority's duties is to promote EIAs of development projects within the Zambezi watercourse system. Ref the duty of a river basin management institution in Article 4(d)(iii) of the Protocol on Shared Watercourses in the Southern African Development Community (SADC) Region 1995; cf Article 5(d)(iii) of the Protocol on Shared Watercourse Systems in the Southern African Development Community (SADC) Region 2000.

the consequence that the Zambezi environment and the interests of other riparian states may be seriously prejudiced.

In the premises, it is submitted that the common environmental trends and the environmental interdependence justify the need for or call for EIA coordination in the region.

PART THREE

ENVIRONMENTAL IMPACT ASSESSMENTS IN SOUTHERN AFRICAN STATES

3.1 General

The countries of southern Africa, in particular SADC Member States,¹⁴⁶ are at different stages of EIA implementation. At the time of writing (early September 2001) Botswana,¹⁴⁷ Democratic Republic of Congo, Lesotho,¹⁴⁸ Tanzania¹⁴⁹ and Zimbabwe have no EIA legislation. In most of these, EIAs are conducted at the behest of funding organisations or simply on a voluntary basis. Namibia and Zimbabwe have detailed EIA policies. The rest of the SADC Members have EIA enactments. However, some of these enactments are partial: they do not set out detailed EIA procedures; they envisage the promulgation of complementary legislation. In the present Part the EIA systems outlined in the pieces of legislation will be summarised and critically analysed. Only the EIA policies of Namibia and Zimbabwe will be examined due to their eminence. Thereafter a few observations will be made in the context of the general enterprise of investigating the need for EIA coordination in the region.

¹⁴⁶Not all countries in southern Africa are members of SADC: Madagascar is not.

¹⁴⁷D Rubadiri, private lawyer (Rubadiri & Company, Gaborone, Botswana), personal communication (1 September 2001). The EIA legislation is said to be 'in the pipeline'.

¹⁴⁸P Letete, law lecturer (National University of Lesotho, Roma, Lesotho), personal communication (5 September 2001). She reports that the country has an environmental bill and that once the bill becomes an Act EIA Guidelines will be drafted to conform with the provisions of the bill.

¹⁴⁹http://www.newafrica.com/environment/tz_eia_1.htm; V Shauri, environmental consultant (as of October 2001 he was Director of Research & Publications at the Lawyers' Environmental Action Team, Dar es salaam, Tanzania), personal communication (11 September 2001). He reports that Tanzania's Marine Parks and Reserves Act 1994 makes reference to EIA and that the Mining Act 1998 has EIA provisions. Since the latter is not a general EIA enactment, the EIA system prescribed therein will not be discussed in this monograph.

3.2 EIA Legislation in Southern Africa

3.2.1 Malawi

Malawi's Environment Management Act No. 23 of 1996 (EMA)¹⁵⁰ makes provision for EIAs. It empowers the Minister to specify the types and sizes of projects which shall not be implemented unless an EIA is carried out.¹⁵¹ No licensing authority is permitted to issue any licence under any written law with respect to such projects unless the Director of Environmental Affairs has certified in writing that the project has been approved by the Minister, or that an EIA is not required, under the EMA.¹⁵²

Before a developer implements any prescribed project, he is required to submit to the Director a 'project brief' stating, *inter alia*, the activities that shall be undertaken in the implementation of the project, and the likely impact of those activities on the environment.¹⁵³ If the Director considers that sufficient information has been stated in the project brief, he instructs the developer to conduct an EIA¹⁵⁴ and to submit a report to the Director in respect of such EIA. The report must contain, among other things, a description of the segment or segments of the environment likely to be affected by the project, a description of the technology, method or process to be used in the implementation of the project, and an outline of any gaps, deficiencies and adverse environmental concerns arising from the EIA and from the compilation of the EIA report.¹⁵⁵

¹⁵⁰ Copy reproduced in UNEP/UNDP *Compendium of Environmental Laws of African Countries* Volume I: Framework Laws and EIA Regulations (1996) at 214-234.

¹⁵¹ Section 24(1) of EMA.

¹⁵² Section 26(3) of EMA.

¹⁵³ Section 24(2) of EMA.

¹⁵⁴ 'In accordance with such guidelines as the Minister may, by notice published in the *Gazette* prescribe': section 25(1) of EMA.

¹⁵⁵ Section 25(1) of EMA.

The EIA report must be open for public inspection, but no person is entitled to use any information in it for personal benefit; such information may be used only for purposes of civil proceedings relating to the protection and management of the environment or the conservation or sustainable utilisation of natural resources.¹⁵⁶ The Director, upon receiving the EIA report, shall invite written or oral comments from the public, and may conduct public hearings. Where necessary the Director may:

- require the developer to redesign the project or to do such other thing as the Director considers desirable taking into account all the relevant environmental concerns highlighted in the EIA report, any public comments, and the need to achieve the objectives of EMA;
- require the developer to conduct a further EIA of the whole or part(s) of the project, or to revise the information compiled in the EIA report; or
- recommend to the Minister to approve the project subject to such conditions as the Director may recommend to the Minister.¹⁵⁷

The Director is required, in consultation with an appropriate ‘lead agency’,¹⁵⁸ to carry out or cause to be carried out periodic audits of any project. For this purpose, he may direct a developer to keep such records and submit to the Director such reports as the Director may deem necessary.¹⁵⁹

It is an offence for the developer to fail to give further information on the project brief upon being requested to do so by the Director. It is also an offence to fail to prepare an EIA report or knowingly to furnish false information in such report. Upon conviction, the developer is liable to a fine of between 5000 and 200 000 Malawi Kwacha (inclusive)¹⁶⁰ and to imprisonment for two years.¹⁶¹ Further, if any provisions of the Act relating to EIA are

¹⁵⁶ Section 25(3) of EMA.

¹⁵⁷ Section 26(1) of EMA. Section 26(2) directs that in considering whether or not to recommend to the Minister the approval of any project or of any condition, the Director must take into account not only any likely impact of the project on the environment but also the actual impact of any existing similar project on the environment.

¹⁵⁸ ‘Lead agency’ is defined in section 2 as ‘any public office or organization including every Ministry or Government department which is conferred by any written law with powers and functions for the protection and management of any segment of the environment and the conservation and sustainable utilization of natural resources of Malawi.’

¹⁵⁹ Section 27 of EMA.

¹⁶⁰ Approximately equivalent to between ZAR 836 and ZAR 33 445 using the exchange rate of ZAR1 = MWK 5.98 (brought to the nearest two decimal points) as displayed on 23 October 2001 at http://www.absa.co.za/ABSA/Site_Templates/Exchange_Rates/Exchange_Frame_Set/0.1507..00.html

¹⁶¹ Section 63 of EMA.

contravened, the Director may ‘order the closure of any premises by means of, or in relation to which the Director reasonably believes the contravention was committed’.¹⁶² The ‘closure’ ceases upon compliance with the provisions.¹⁶³ In addition the Director may issue an ‘environmental protection order’ directing the developer to stop, prevent or modify any action or conduct (in connection with the EIA or the implementation of the project or otherwise) which causes or contributes or is likely to cause or to contribute to pollution.¹⁶⁴

Malawi’s EIA system is commendable in many respects. In the first place, the EIA report is expressly required to describe in detail the cumulative effects of the project on the environment.¹⁶⁵ In the second place, section 25(1)(g) of the EMA demands that the EIA report indicate whether the environment of any other country or of areas beyond the limits of national jurisdiction is or are likely to be affected by the project and the measures to be taken to minimise any damage to that environment. Unlike many EIA systems, this provision puts the developer on notice that Malawi’s concern over the environment is not restricted to the national territory. In the third place, the enforcement procedures prescribed in the EMA (as described in the last paragraph) are considerable.

However, the system has its deficiencies. First, public participation comes into play late in the process: only after the EIA report has been compiled are the public allowed to inspect it.¹⁶⁶ Secondly, there is only passing reference to monitoring, section 25(1)(b) merely stating that the EIA report should describe ‘the means for ... monitoring ... the environmental effects of the project’. It is uncertain who will be responsible for the monitoring. In the context there is room for the developer to indicate that he will himself do the monitoring, a situation that has ‘the same weakness as assigning a fox to guard the chickens’.¹⁶⁷ Thirdly, the possibility of requiring the developer to conduct a further EIA of the whole project is potentially prohibitive: it may be a hindrance to environmentally harmless development. Fourthly, a person wishing to bring civil proceedings in relation to the EIA is not tied to lodging it first in

¹⁶² Section 76(1) of EMA.

¹⁶³ Section 76(2) of EMA. This subsection further provides that if before the closure ceases court proceedings have been instituted in respect of the contravention, the premises shall remain closed until the proceedings are finally concluded.

¹⁶⁴ Section 33(1) and (2)(b) of EMA.

¹⁶⁵ Section 25(1)(e) of EMA. Non-cumulative impacts may downplay the impact of the project. Cumulative effects reveal a clearer picture of the project’s impact. Accordingly explicit provision for the consideration of cumulative effects is a credit that must not go unnoticed. Cf J Scott *E C Environmental Law* (1998) at 119-120.

¹⁶⁶ Section 25(3) of EMA. The EIA Guidelines contain a contrary statement. It is not entirely clear whether the principal Act or the Guidelines take(s) precedence.

¹⁶⁷ Irving Fox, University of British Columbia, quoted in J Glasson, R Therivel and A Chadwick *Introduction to Environmental Impact Assessment* 2ed (1999) at 340-1.

the Environmental Appeals Tribunal,¹⁶⁸ a defect that is likely to occasion inordinate delay in project approval and implementation if the proceedings are pursued in the busy ordinary courts. Finally, Malawi's EIA Guidelines sometimes contradict the governing legislation, the EMA. For instance, the EMA only calls for public participation after the EIA report has been produced,¹⁶⁹ but the Guidelines suggest that there should be public participation as early as at the scoping stage.¹⁷⁰ Such contradictions are likely to lead to confusion and conflict between the developer and the authorities.

3.2.2 Mauritius

The Environment Protection Act 1991 of Mauritius¹⁷¹ details the EIA¹⁷² procedure of the country. No person is permitted to commence, proceed, carry out, execute or conduct an undertaking without an EIA licence or cause any of these acts except in the case of an exempt undertaking.¹⁷³ The First Schedule to the Act lists undertakings requiring an EIA. A proponent (hereinafter 'developer') applying for an EIA licence must submit an EIA report to the Director of Environment in relation to his undertaking. The EIA report must contain a description of, *inter alia*, the location and surroundings of the undertaking, its effects, mitigation measures, alternatives and such other information as may be necessary for a proper review of the potential environmental impact of the undertaking.¹⁷⁴ The EIA report must be

¹⁶⁸The Tribunal is established under section 69 of EMA with the following duties: (a) to consider appeals against any decision or action of the Minister, Director or inspector under EMA; (b) to consider appeals against the refusal by the Minister or Director to issue a licence under EMA; (c) to consider appeals against the revocation by the Minister or Director of a licence under EMA; (d) to consider appeals against the closure of any premises pursuant to EMA; and (e) to consider such other issues relating to the protection and management of the environment and the conservation and sustainable utilization of natural resources as the Minister or the Director or any person may refer to it.

¹⁶⁹ Section 25(3) of EMA.

¹⁷⁰ Paragraph 2.2 and Appendix G of the Guidelines.

¹⁷¹ Copy reproduced in UNEP/UNDP *Compendium of Environmental Laws of African Countries* Volume I: Framework Laws and EIA Regulations (1996) at 237-265. The internet (<http://ncb.intnet.mu/eurd/minenv/>) indicates that in June 2001 amendments to the Act were proposed. Efforts by the present writer to ascertain from the government whether the amendments had been effected did not yield any results. The copy of the Act used here is that described on the government website (shown above) as having amendments up to June 2001.

¹⁷² Section 2 of the Act defines environmental impact assessment as 'a document containing the information under section 14'. Section 14 sets out what in many EIA systems are the contents of an EIA report. The Act makes no reference to the term 'EIA report'. In effect this statute designates 'EIA' as the EIA report and not as the whole EIA process. However, this different use of terms is not of great consequence. In the discussion hereinafter 'EIA' will be taken as the whole EIA process.

¹⁷³ Explained below.

¹⁷⁴ Sections 13(1) and (3) and 14.

open for public inspection: notice to that effect must be placed in two issues of the Gazette and two issues of two daily newspapers.¹⁷⁵

The Director reviews the EIA report and determines its scope and contents. He then refers it to the EIA Committee for examination, with such comments and observations as he thinks appropriate and with any public comments. For the purpose of his review, the Director may set up a technical advisory committee¹⁷⁶ or require the developer to carry out further study or to submit additional information with a view to ensuring that the EIA is as accurate and exhaustive as possible.¹⁷⁷

The EIA Committee examines the EIA licence application after the Director's review and makes its recommendations to the Minister responsible for the environment. After taking into account these recommendations, the Minister makes his decision and may:

- refer it back to the Director with a direction to set up a technical advisory committee for further consideration of the EIA;
- require the developer to furnish any additional information as may be needed to determine the environmental impact of the undertaking;
- where it provides insufficient information to determine the scope or the environmental impact of the undertaking, disapprove it; or
- approve it with a direction to the Director to issue an EIA licence on such terms and conditions as appropriate.¹⁷⁸

Notwithstanding the approval of an EIA report, the Minister may revoke an EIA licence or amend its conditions; give the developer such directions as he considers necessary,¹⁷⁹ or require the developer to submit at specified intervals reports on the environmental impacts of the undertaking.

¹⁷⁵Section 15.

¹⁷⁶To advise him on the EIA report or on any aspects of the undertaking (section 16(2)(b)).

¹⁷⁷Section 16.

¹⁷⁸Sections 17(2) and 18.

¹⁷⁹In relation to: (i) the methods of execution and the phasing of the undertaking; (ii) works or actions required to prevent, reduce or eliminate the adverse effects of the undertaking on the environment; (iii) research, investigation and monitoring programmes related to the undertaking; (iv) any other aspect of the undertaking or of the execution of the undertaking which is reasonably expected to have adverse environmental effects. (Section 19(3)).

At any time after the issue of an EIA licence the Director may order the licensee to submit a fresh EIA in respect of the undertaking on the ground, *inter alia*, that the undertaking is or is likely to be a source of pollution to the environment.¹⁸⁰

Among the strengths of the Mauritian EIA system are its enforcement measures. Where a developer is contravening or is likely to contravene the EIA provisions of the Act, the Director may serve on him a programme notice specifying the (likely) contravention and requesting him to submit for the Director's approval a written programme of measures the developer intends to take to remedy the contravention or to eliminate the likelihood of a contravention. After approval the Director may supervise the implementation of the measures. If the developer fails to comply with a request in the programme notice, a programme approval or any direction relating to the implementation of the measures, or where the programme approval is revoked, the Director may issue an 'enforcement notice' or a 'prohibition notice'.¹⁸¹ An authorised person may enter any premises to determine whether any EIA provisions in the Act or any enforcement notice, prohibition notice or direction is being complied with.¹⁸² Such authorised officer may search the premises and may even arrest any person reasonably suspected of the contravention.¹⁸³ In addition the Act prescribes a number of offences relating to EIA punishable by fines of up to 250 000 Mauritian Rupees¹⁸⁴ and imprisonment for periods not exceeding 12 years.¹⁸⁵ If the conviction is connected to commencing, proceeding with or carrying out, executing or conducting an undertaking (or causing any of these acts) without an EIA licence or in breach of any condition of the licence, the court is mandated to order that the undertaking be stopped, ceased, closed or pulled down as the case may be.¹⁸⁶

¹⁸⁰Other grounds are: (i) where there is a substantial change or modification in the undertaking or in the manner of its operation; (ii) where the undertaking poses a threat to the environment; or (iii) where the circumstances of the undertaking with regard to its surrounding environment so require. (Section 20).

¹⁸¹Section 57. The enforcement notice is issued where a programme approval will not provide an effectual remedy, or a prohibition notice is not appropriate. It specifies, among other things, the matter constituting the contravention or likely contravention, and the measures to be taken to remedy such contravention or eliminate the likelihood of the contravention. (Section 58). A prohibition notice is issued where an enterprise or activity or the manner in which the enterprise or activity is carried on, involves an imminent risk of serious pollution of the environment. It may be served whether or not there is a contravention of an environmental law or there is in force any licence, permit or approval in relation to that enterprise or activity. It specifies, *inter alia*, the enterprise or activity, or any aspect thereof, that is prohibited. (Section 59).

¹⁸²Section 64.

¹⁸³Section 65(1).

¹⁸⁴Approximately equivalent to ZAR 81 967 using the exchange rate of ZAR1 = MUR 3.05 (brought to the nearest two decimal points) as displayed on 23 October 2001 at http://www.absa.co.za/ABSA/Site_Templates/Exchange_Rates/Exchange_Frame_Set/0.1507.00.html

¹⁸⁵Section 67.

¹⁸⁶Section 68(3).

Several weaknesses of the system may be noted. The developer is under no obligation to involve the public until after preparing the EIA report.¹⁸⁷ Secondly, the preparation of a fresh EIA report by a developer already having an EIA licence is costly and unnecessary. It is submitted that the need for a fresh EIA would be obviated by exercising diligence and achieving high quality in the first EIA and by wise modification and proper implementation of mitigation measures.¹⁸⁸ Thirdly, the list of undertakings requiring an EIA is unduly wide: it has no thresholds or sizes, which may result in environmentally harmless projects being subjected to EIA and so in a waste of resources. For instance, a person who wishes to rear a few birds or to handle and store a small quantity of coal (as an aspect of port or harbour development) has to go through the rigmarole of the EIA process. Finally, the (possible) existence of ‘exempt undertakings’ is problematic. Section 23 vests in the Minister power to ‘declare an undertaking by a public department, which in his opinion is urgently needed in the national interest or for the economic development of Mauritius, to be an exempt undertaking’. For such an undertaking no EIA need be conducted.¹⁸⁹ No safeguards are provided to check the Minister’s discretion. This is arguably a loophole that may let through environmentally unsound projects. It is suggested that this exception be repealed entirely.

3.2.3 Seychelles

The principal EIA legislation in the Seychelles is the Environment Protection Act 1994.¹⁹⁰ Section 15(1) declares that it is an offence for any person to commence, proceed with, carry out, execute or conduct, or cause to commence, proceed with, carry out, execute or conduct any prescribed project or activity or any project or activity in a protected or ecologically sensitive area as may be prescribed, without carrying out ‘an Environment Impact

¹⁸⁷Section 15 only calls for public inspection and comment after the EIA report has been submitted.

¹⁸⁸Perhaps the only justifiable ground for a fresh EIA is where there is a substantial change or modification in the undertaking, or in the manner in which the undertaking is being operated. Even then, however, the Act offers no guidance as to what constitutes ‘substantial change or modification.’ The difficulty of defining this phrase may consume numerous hours and much expense on the part of the court and the parties concerned.

¹⁸⁹Specifically section 23(2) states that sections 13 and 16(b) - sic - shall not apply in respect of an exempt undertaking. Section 13 is the provision that calls for EIA. Strangely, section 23 goes further to refer to an EIA in respect of an exempt undertaking and provides, *inter alia*, that the Director shall send an EIA report in respect of an exempt undertaking together with his comments and observations and with any public comments submitted, to the Minister for decision. In the interest of resolving the apparent conflict, it is suggested that the reference to EIA takes care of the situation where the Minister declares an undertaking to be an exempt undertaking after an EIA report has been produced but before it is submitted to the EIA Committee.

¹⁹⁰Act No. 9 of 1994. Copy reproduced in UNEP/UNDP *Compendium of Environmental Laws of African Countries* Volume I: Framework Laws and EIA Regulations 1996 at 293-305.

Assessment Study'¹⁹¹ and without obtaining authorisation from the Authority,¹⁹² or in breach of any conditions imposed by the Authority.

An EIA report must contain, *inter alia*, a description of the location, size and scope of the project or activity; the original state of the environment prior to implementation of the project or activity; its environmental effects; mitigation measures; technical aspects; environmental monitoring programme; and such other information as may be necessary to a proper review of the potential environmental impacts of the project or activity.¹⁹³

The developer prepares the EIA report and submits it to the Authority for authorisation.¹⁹⁴ If the Authority is the Minister,¹⁹⁵ he may be advised in this connection by one or more Environmental Appraisal Committees.¹⁹⁶ The EIA report may be inspected by the public at all reasonable times. The public may submit comments and the time limit for doing so must be indicated by the Authority in two issues of a local newspaper.¹⁹⁷

The Seychellois EIA system has several advantages. First, its list of things to be included in the EIA report suggests in reasonably clear terms the steps that must be included in the EIA. Secondly, monitoring is not left in the hands of the developer: on the contrary, the Authority is responsible for monitoring the conclusions of the EIA and for ensuring that the necessary conditions are complied with.¹⁹⁸ Thirdly, its enforcement measures are laudable. For instance, if work on a project or activity is commenced in contravention of the EIA provisions of the Act, the Authority may direct the owner to suspend the project or activity.¹⁹⁹ Such a direction may also be issued where the developer has concealed, given false information or manipulated data in the course of the assessment procedure with the intent to mislead the

¹⁹¹It is evident from the manner in which the phrase 'Environment Impact Assessment Study' is used that it refers in some places to EIA as defined in Part One of this monograph (e.g. in section 15(1)) and in other places to EIA report (e.g. in section 15(4)(b) and 15(5)(c)(iii)). For the sake of uniformity and clarity of expression, in the following discussion the phrase 'Environment Impact Assessment Study' will be replaced by EIA or EIA report where applicable.

¹⁹²'Authority' is defined in sections 2 and 4 as the Ministry or Department of the government under the Minister responsible for the environment or a corporate body constituted by the Minister under section 4(2) for environmental protection purposes.

¹⁹³Section 15(3).

¹⁹⁴Section 15(4).

¹⁹⁵The 'Authority' may also be a body corporate (sections 2 and 4).

¹⁹⁶Section 15(2).

¹⁹⁷Section 15(5).

¹⁹⁸Section 15(6).

¹⁹⁹Section 15(7).

Authority.²⁰⁰ Other enforcement measures include enforcement notices,²⁰¹ prohibition notices,²⁰² powers of entry, inspection, seizure²⁰³ and penalties. The penalties are fines that may exceed 250 000 Seychellois Rupees²⁰⁴ and imprisonment for periods of up to seven years.²⁰⁵

The system has its share of deficiencies. It appears that public participation is only mandatory after the EIA report has been prepared.²⁰⁶ Further, the system is prone to political abuse. Section 15(11) states that the Minister ‘may with the approval of the Cabinet, in exceptional circumstances and by notification giving grounds on which the decision is based, exclude a prescribed project from the Environment Impact Assessment process’. It is arguable that in the absence of guidelines on the nature of the grounds and on what constitutes exceptional circumstances, there is little to stand in the way of environmentally prejudicial political manoeuvring. Not much is gained from requiring that the notification be made public and indicate ‘the measures which are deemed to be necessary in order to reduce the environmental impact of the activity or project,’ for it is difficult to see how effective measures will be found without conducting an EIA.

3.2.4 South Africa

The EIA system of South Africa is principally addressed in two statutes: the Environment Conservation Act 73 of 1989 (ECA)²⁰⁷ and the National Environmental Management Act 107

²⁰⁰Section 15(8)(a). The direction to suspend may also be issued if the developer fails to comply with or contravenes any of the conditions upon which the implementation of the project depends. (Section 15(8)(b)).

²⁰¹Section 16. This notice is similar to that of Mauritius.

²⁰²Section 17. This notice is similar to that of Mauritius.

²⁰³Section 22.

²⁰⁴Approximately equivalent to ZAR 438 596 using the exchange rate of ZAR1 = SCR 0.57 (brought to the nearest two decimal points) as displayed on 23 October 2001 at http://www.absa.co.za/ABSA/Site_Templates/Exchange_Rates/Exchange_Frame_Set/0.1507..00.html

²⁰⁵Sections 30 and 31.

²⁰⁶Section 5(a) states: ‘An Environment Impact Assessment Study shall be open at all reasonable times.’ Section 5(c)(iii) states: ‘A notice [indicating the time limit for the submission of public comments] shall state the place where the Environment Impact Assessment Study may be inspected.’ The present writer is of the view that the phrase ‘Environment Impact Assessment Study’ means EIA report; otherwise, how, in the circumstances, can a ‘study’ - apart from its report - be inspected or be open for public inspection?

²⁰⁷Copy reproduced in UNEP/UNDP *Compendium of Environmental Laws of African Countries* Volume I: Framework Laws and EIA Regulations (1997 Supplement to Volume I 1996 edition) (1997) at 90-107.

of 1998 (NEMA).²⁰⁸ The former empowers the Minister to identify those activities which may have a substantial detrimental effect on the environment and to make regulations with regard to such activities,²⁰⁹ tasks which have already been performed.²¹⁰ No person is permitted to undertake an identified activity (or cause such activity to be undertaken) without written authorisation from the Minister or a Premier or a local authority or an officer.²¹¹ The authorisation may only be issued after consideration of an ‘environmental impact report’ (hereinafter ‘EIA report’) concerning the proposed activity.²¹²

After an applicant (hereinafter ‘developer’) has submitted an application for authorisation, the relevant authority must consider it. Having done so, the relevant authority may request the developer to submit a plan of study for scoping for the purposes of a scoping report, or, in a suitable case, to submit such scoping report without a prior plan of study.²¹³ Once the plan of study for scoping has been accepted, the developer must submit a scoping report.²¹⁴ After a scoping report has been accepted, the relevant authority may decide:

- (a) that the information contained in the scoping report is sufficient for the consideration of the application for authorisation without further investigation; or

²⁰⁸Copy reproduced in P G W Henderson *Environmental Laws of South Africa* Volume I (1996) at 1-28.1 to 1-28.35. It must be noted that many other Acts contain references to EIA e.g the Minerals Act 50 of 1991 (chapter 6), the National Water Act 36 of 1998 (sections 41(2) and 110(1)) and the Marine Living Resources Act 18 of 1998 (section 18(1) to (3)).

²⁰⁹Sections 21 and 26 of ECA.

²¹⁰The Minister of Environmental Affairs and Tourism identified the activities in GN R1182 GG 18261 of 5 September 1997. The Minister promulgated the regulations in GN R1183 GG 18261 of 5 September 1997.

²¹¹Section 22(1) of ECA. The Premier, authority or officer must be designated by the Minister. The Minister has done this in GN R1184 GG 18261 of 5 September 1997. Premier is the new title for the Administrator of a province.

²¹²Section 22(2) of ECA. Specifically this subsection refers to ‘consideration of reports concerning the impact of the proposed activity and of alternative proposed activities on the environment.’ Section 26(a) of ECA and the EIA Regulations made under that section refer to ‘environmental impact report.’ For the sake of uniformity and clarity of expression in the present Part, the phrase ‘EIA report’ will be used instead of ‘environmental impact report.’

²¹³Regulation 5(1) of the EIA Regulations. According to regulation 5(2) a plan of study for scoping must include a brief description of the activity to be undertaken; a description of all tasks to be performed during scoping; a schedule setting out when the tasks to be performed during scoping will be completed; an indication of the stages at which the relevant authority will be consulted; and a description of the proposed method of identifying the environmental issues and alternatives. Regulation 5(3) allows the relevant authority, after receiving and considering the plan of study for scoping, to request the developer to provide additional information that the relevant authority requires to accept the plan of study for scoping.

²¹⁴The scoping report must include a brief project description; a brief description of how the environment may be affected; a description of environmental issues identified; a description of all alternatives identified; and an appendix containing a description of the public participation process followed, including a list of interested parties and their comments. After receiving and considering the scoping report, the relevant authority may request the developer to make the amendments that the relevant authority requires to accept the scoping report. (Regulation 6(1) and (2) of the EIA Regulations).

(b) that the information contained in the scoping report should be supplemented by an EIA which focuses on the alternatives and environmental issues identified in the scoping report.²¹⁵

In the event of decision (b) the developer must submit a plan of study for an EIA.²¹⁶ After this plan of study for an EIA has been accepted, the developer must present an EIA report²¹⁷ to the relevant authority. After receipt of the EIA report, and in the case of decision (a), the relevant authority must consider the application for authorisation and may decide either to issue an authorisation with or without conditions, or to refuse the application.²¹⁸ The relevant authority is required to issue a record of the decision to the developer and, on request, to any other person.²¹⁹ Any person aggrieved by the decision may appeal to the Minister or provincial authority.²²⁰

The foregoing EIA procedure is part of South Africa's Integrated Environmental Management (IEM) process, a process which recently found expression in legislation.²²¹ Its requirements are wide-ranging and it prescribes minimum procedures for the investigation, assessment and communication of the potential impact of activities on the environment.²²²

²¹⁵ Regulation 6(3) of the EIA Regulations.

²¹⁶ The plan of study for an EIA must include a description of the environmental issues identified during scoping that may require further investigation and assessment; a description of the feasible alternatives identified during scoping that may be further investigated; an indication of additional information required to determine the potential impacts of the proposed activity on the environment; a description of the proposed method of identifying these impacts; and a description of the proposed method of assessing the significance of these impacts. After receiving and considering the plan of study for an EIA, the relevant authority may request the developer to make the amendments to the plan of study that the relevant authority requires to accept the plan. (Regulation 7 of the EIA Regulations).

²¹⁷ The EIA report must contain: (a) a description of each alternative, including particulars on (i) the extent and significance of each identified environmental impact and (ii) the possibility for mitigation of each identified impact; (b) a comparative assessment of all the alternatives; and (c) appendices containing descriptions of (i) the environment concerned, (ii) the activity to be undertaken, (iii) the public participation process followed, including a list of interested parties and their comments, (iv) any media coverage given to the proposed activity, and (v) any other information included in the accepted plan of study. (Regulation 8 of EIA Regulations).

²¹⁸ Regulation 9(1) of EIA Regulations. The relevant authority must also determine the period of validity of the authorisation. (Regulation 9(2) of EIA Regulations).

²¹⁹ Regulation 10(1) of EIA Regulations. Regulation 10(2) lists the things that must be set out in the record of decision.

²²⁰ The appeal must be done in writing within 30 days from the date on which the record of decision was issued to the developer. (Regulation 11(1) of EIA Regulations).

²²¹ Chapter 5 of NEMA. With this the prophecy of Preston, Robin and Fuggle in 'Integrated Environmental Management' in R F Fuggle and M A Rabie (eds) *Environmental Management in South Africa* (1992) 748 at 761 that 'the Council for the Environment's recommendation that IEM should be legally enforceable is likely to find expression in the near future' is now fulfilled. E Couzens 'NEMA - A Step Closer To Coherence?' (1999) 6 *SAJELP* 13 at 17 states that Chapter 5 of NEMA 'introduces formally into law the concept of integrated environmental management.'

²²² Section 24(7) of NEMA.

On the whole the South African EIA system is laudable. Unlike the majority of the systems in the region, it demands that an independent consultant - rather than the developer - conduct the EIA²²³ and that the EIA be subject to ‘independent review.’²²⁴ These factors are likely to enhance the professional quality of the EIA.²²⁵ Public participation is mandatory in potentially all the steps of the EIA.²²⁶ Further, the relevant authority is required to ensure that evaluations and decisions in the EIA process are done or reached efficiently and within a reasonable time.²²⁷ In addition, it seems that international considerations may be incorporated in the process.²²⁸ Finally, the system has considerable enforcement measures. Any person who undertakes an activity identified as requiring EIA without conducting such EIA is liable to a fine not exceeding ZAR 100 000 or to imprisonment for a period not exceeding 10 years (or both).²²⁹ Any vehicle or other thing by means of which the offence was committed, may be forfeited.²³⁰

A number of concerns about the system have been voiced. First, the system’s initial assessment stage (at which it is decided whether an EIA is required) has an inherent danger: ‘a decision not to proceed with a full scale EIA may be made on superficial information before the full impacts of the development are understood.’²³¹ Secondly, although IEM makes provision for public participation, Ridl points out that it is difficult to obtain the participation of ‘disadvantaged communities’ because of lack of communication. They are not easily

²²³Regulation 3(1)(a) of EIA Regulations.

²²⁴Section 24(7)(d) of NEMA. However, the Act does not indicate in clear terms who should do the independent review and how it should be done. Nor does the Act offer unequivocal guidance on the precise place of the independent review in the EIA procedure.

²²⁵J Glazewski *Environmental Law in South Africa* (2000) at 285 contends that independence may not really be achieved because the ‘independent consultant’ is paid by the developer. He suggests that the independence requirement be scraped off; instead there should be a demand for independent review.

²²⁶Regulation 3(1)(f) of the EIA Regulations calls for public participation in ‘all the relevant procedures.’

²²⁷Regulation 3(3)(b) of the EIA Regulations.

²²⁸Regulation 4 of the EIA Regulations provides that where the proposed activity has direct implications for international environmental commitments or relations or where the environment under threat is demarcated as an area of international importance, the application for authorisation must be referred to the Minister who may ultimately have to decide on it jointly with provincial and local authorities. This bringing of minds together is likely to take into account the environmental concerns of other countries.

²²⁹This is the general effect of section 22(1) and (2) as read with section 29(4) of ECA.

²³⁰Section 30(1) of ECA.

²³¹J Ridl ‘“IEM”: Lip-service and Licence’ (1994) 1 *SAJELP* 61 at 65. Even though this article was written before the enactment of the EIA Regulations and NEMA, the point made (quoted) is still valid.

reached through the media, except perhaps by radio. Even after communication, public participation is hindered by public apathy.²³² Thirdly, Winstanley²³³ contends that the focus of the system on particular activities rather than potential impacts is problematic. ‘[I]n a particularly sensitive environment, an activity which is relatively minor (and therefore not contained in the list of identified activities) may have a significant impact. In these circumstances the regulations would not apply and it will not be possible for a competent authority to prevent the activity under [the] regulations.’²³⁴ Further, the listed activities are not comprehensive.²³⁵ Fourthly, Glazewski²³⁶ observes that the procedure is cumbersome, demanding too much from the developer. This cumbersome procedure, coupled with lack of expertise, resources and capacity in government departments responsible for implementing the process, is likely to lead to lengthy delays and increased costs of project implementation.²³⁷ In the fifth place, the system appears to transgress the general rule that a person may not be judge in his own cause, for it seems to require that a developer dissatisfied with the grant or refusal of the application for authorisation by a competent provincial authority must lodge an appeal with the same authority.²³⁸ Finally, the coordinating duty²³⁹ of the Director-General of Environmental Affairs and Tourism may not be enviable; it is not an easy task. It is likely to lead to interdepartmental conflict.²⁴⁰

Most of these criticisms are also applicable to the EIA systems of the other countries examined in the present Part.

3.2.5 Swaziland

²³² Ibid at 75.

²³³ ‘Environmental Impact Assessments: One Year Later’ (1998) 5 *SAJELP* 387 at 389.

²³⁴ Ibid.

²³⁵ *ibid.*

²³⁶ Op cit n80 at 285 . In all fairness it seems too much to require a plan of study for scoping, a scoping report and a further ‘plan of study’ for the EIA before the EIA can proceed. In addition, Glazewski op cit n80 at 287 rightly points out that the demarcation between scoping and EIA is vague.

²³⁷ Glazewski op cit n80 at 287; Winstanley op cit n88 at 393-394. Cf Ridl op cit n86 at 82.

²³⁸ Section 35 of ECA as read with Regulation 11 of EIA Regulations; T Winstanley ‘Environmental Law Update’ 2000 (June) *De Rebus* 51.

²³⁹ Section 23(3) of NEMA enunciates this duty.

²⁴⁰ The conflict is vividly portrayed by R Lawrence ‘How manageable is South Africa’s new framework of environmental management’ (1999) 6 *SAJELP* 61 at 62-63.

Section 18 of the Swaziland Environment Authority Act 1992²⁴¹ vests in the Minister responsible for environmental protection the power to make regulations for the procedures for the introduction of EIAs on development projects. This power was executed by the promulgation of the Environmental Audit, Assessment and Review Regulations 1996.²⁴² A schedule to the Regulations²⁴³ lists three categories of projects. Category 1 projects are those that are unlikely to cause any significant environmental impacts. In category 2 are projects that are likely to cause environmental impacts some of which may be significant unless mitigation actions are taken. The impacts are relatively well-known and easy to predict, and mitigation measures are well-known. Category 3 projects are those that are likely to have significant adverse impacts the scale, extent and significance of which cannot be determined without in-depth study.

The Regulations apply to all projects which require some permit, licence, approval or other consent from an authorising agency²⁴⁴ or which are forwarded to the Ministry of Economic Planning and Development (MEPD) for inclusion in the Development Plan.²⁴⁵ An authorising agency, MEPD and any ministry proposing to undertake a development project are required to determine the category under which projects fall²⁴⁶ and then to forward the projects to the Swaziland Environment Authority ('the Authority'). The Authority may amend the categorisation. If a project is classified under category 1, the Authority must issue an Environmental Compliance Certificate whereupon the project is permitted to proceed to authorisation procedures.²⁴⁷

Where a project is classified under category 2, a proponent (hereinafter 'developer') must submit Terms of Reference to the Authority. When the Authority approves the Terms of

²⁴¹ A copy of the Act is reproduced in UNEP/UNDP *Compendium of Environmental Laws of African Countries* Volume I: Framework Laws and EIA Regulations (1997 Supplement to Volume I 1996 edition) (1997) at 117-122.

²⁴² <http://www.saep.org/sadc/country/swaziland/envaudswa.html>

²⁴³ First Schedule.

²⁴⁴ Regulation 4 defines 'authorising agency' as 'a person, body, government department or agency, local authority or any person empowered by law in Swaziland to issue a permit, licence, consent or approval.'

²⁴⁵ Regulation 7.

²⁴⁶ It appears that a private sector developer must submit a project proposal to the authorising agency or MEPD which categorise the project. A ministry proposing to undertake a development project does not have to submit to the agency or MEPD; it categorises the project on its own. (Regulation 7).

²⁴⁷ Regulation 7. These authorisation procedures are apparently those not based on environmental compliance e.g physical planning authorisation processes.

Reference, the developer must present an ‘initial environmental evaluation’ (IEE) report and a ‘comprehensive mitigation plan’ (CMP) to the authorising agency or MEPD for onward transmission to the Authority. The Authority decides, within 15 days of receipt of the IEE report and CMP, whether the IEE report and CMP conform to prescribed reporting guidelines.²⁴⁸ If they conform,²⁴⁹ the Authority must review them and either order the developer to prepare and submit an EIA report²⁵⁰ and a CMP, or order the developer to make any other appropriate amendments. Where it is decided that an EIA report and a CMP be submitted, the procedure to be followed shall be the same as that for projects in category 3.²⁵¹

If a project is classified under category 3, the developer must present Terms of Reference to the Authority. Only after the Terms of Reference are approved may the developer embark on the preparation of the EIA report and CMP. Once prepared, the developer is required to submit the EIA report and CMP to the authorising agency or MEPD which must send them over to the Authority within ten days of receipt. The Authority must decide, within twenty days of receipt of the EIA report and CMP, whether the EIA report and CMP conform to prescribed reporting guidelines²⁵² and contain the necessary breadth, depth and types of analysis. If they do not, the developer shall effect amendments and resubmit.²⁵³ Thereafter the Authority makes one of the following decisions:

- (a) it allows the developer to proceed with the project and issues the developer with an Environmental Compliance Certificate; or

²⁴⁸ Regulation 11(6) and Regulation 7. The reporting guidelines have been set out in the Second Schedule to the Regulations.

²⁴⁹ If the IEE report and the CMP do not conform to the prescribed reporting guidelines, the developer must prepare and submit an amended IEE and CMP to the authority which must, within fifteen days of receipt, decide on the issue of conformity. (Regulation 7).

²⁵⁰ Specifically Regulation 7 states that the Authority may order the developer to prepare and submit ‘an EIA and the CMP’. Regulation 4, among other things, provides as follows: ‘**environmental impact statement**’ (hereinafter referred to as EIA) means the process of predicting and evaluating the likely environmental impacts of a proposed project where the scale of extent and significance of the environmental impacts can not easily be determined.’ It is submitted that there is a confusion of terms, abbreviations and definition here. Normally an environmental impact statement should be abbreviated as EIS and not EIA. The Swazi definition is that of environmental impact assessment (as defined in Part One of this monograph) and not environmental impact statement. In the circumstances the definition of Part One will be used for the sake of uniformity and clarity of expression and presentation. Thus an environmental impact assessment will be abbreviated as EIA; environmental impact statement will be abbreviated as EIS; and the short form for environmental impact assessment report will be ‘EIA report’. EIS and EIA report are the same; the text uses the latter term.

²⁵¹ Regulation 7.

²⁵² Set out in the Second Schedule to the Regulations.

²⁵³ Regulation 7 and Regulation 11(6).

(b) it disallows the developer from proceeding with the project as planned, if it will bring about unacceptable environmental impacts or if the mitigation measures are inadequate.²⁵⁴

In the event of decision (b), the developer may carry out appropriate additional work and submit a revised CMP for the Authority's consideration. The Authority may then decide finally to allow or disallow the project.²⁵⁵

One of the greatest strengths of the Swazi EIA system is its public participation procedure. Before preparing an EIA report and a CMP on a category 3 project, a developer is required to engage in a consultation process involving all interested and affected parties with a view to getting assistance in determining the scope and effect of the project.²⁵⁶ Immediately after the EIA report (or an IEE report in the case of a category 2 project) and the CMP are accepted by the Authority, the Authority must elicit public input. The Regulations set out an extensive public review programme.²⁵⁷ It is only after this public review exercise that the Authority may decide whether to issue an Environmental Compliance Certificate and allow the project to proceed to other authorisation procedures. Other credits of the Swazi EIA system include the specification of time periods within which particular actions must be taken, the incorporation of international considerations,²⁵⁸ and arguably strong, clear guidelines on monitoring the impacts of the project.²⁵⁹

The Swazi EIA system is not free from defects. Regulation 7 provides that the Regulations apply either to projects which require a permit, licence, approval or other consent from an authorising agency, or to projects forwarded to MEPD for inclusion in the Development Plan. It is not enough for the project to be among those listed in the First Schedule. This restriction

²⁵⁴ Regulation 8.

²⁵⁵ Regulation 8 and Regulation 13. Any aggrieved person may appeal against the decision. (Regulation 13(2)).

²⁵⁶ Regulation 11(3). It appears that no consultation process is required before submitting an IEE report.

²⁵⁷ Regulation 8 and Regulation 11.

²⁵⁸ Regulation 11 demands that where a project is likely to have significant impacts on the environment of a neighbouring country, or that country so requests, the Authority must forward the relevant reports and documents to that country at the same time as the reports or documents are made available for public review in Swaziland. Even though the Regulations do not state unequivocally that any comments made by the neighbouring country should be taken into account in the decision-making process, it does little violence to the spirit and intendment of the Regulations to read into them such presumption. Otherwise what would be the point in furnishing the neighbouring country with the relevant reports or documents if any comments it makes are destined for the dust bin?

²⁵⁹ Regulation 10. Among other things, this regulation provides for inspections, valuations and the submission of Project Compliance Reports (PCRs).

is questionable, for it is conceivable that a listed project may not require any permit, licence, approval or other consent and may not be destined for the Development Plan; yet it may be environmentally unsound. According to regulation 7 such project will not be subject to the Regulations and consequently may proceed without an EIA at all. This is a critical loophole. Secondly, public consultation is not mandatory before submitting an IEE report. It is submitted that there is no adequate reason for excluding the pre-IEE stages from the laudable provisions of the public participation process. Thirdly, the Swazi EIA system has no clear penalties for non-compliance. Regulation 15, among other things, states that any person who contravenes the Regulations or a condition or requirement made as part of or for the approval of a project, is liable on conviction to ‘the penalties or similar penalties specified under section 16 of the [Swaziland Environment Authority Act]’. Section 16 of the Act makes no direct reference to EIA and prescribes only a fine not exceeding 50 000 Swazi Emalangi²⁶⁰ or a term of imprisonment not exceeding 10 years (or both). This lack of precise guidance on penalties related to EIA is likely to engage a court in unnecessary speculation. Lastly, it is not easy to ascertain from the Regulations everything a developer must do; this is due to the way they have been drafted.²⁶¹ Since it is the developer’s duty to follow through the procedures, it is advisable to overhaul the Regulations with a view to prescribe in clearer terms the steps of the EIA system.

3.2.6 Zambia

EIA law in Zambia is mainly set out in the Environmental Protection and Pollution Control (Environmental Impact Assessment) Regulations 1997.²⁶² The First Schedule to the Regulations lists projects which require ‘project briefs’²⁶³ Apart from those projects listed

²⁶⁰ Approximately equivalent to between ZAR 50 000 using the exchange rate of ZAR1 = SZL 1 as displayed on 23 October 2001 at http://www.absa.co.za/ABSA/Site_Templates/Exchange_Rates/Exchange_Frame_Set/0.1507.00.html

²⁶¹ For instance public participation is provided for in Regulation 8 and Regulation 11, regulations which, without applying a seasoned analytical mind, may appear contradictory. The same may be said of the Authority’s decision as provided for in Regulation 8 and Regulation 13.

²⁶² Statutory Instrument No. 28 of 1997. These regulations were made in exercise of the powers contained in sections 6 and 96 of the Environmental Protection and Pollution Control Act 1990 (cap 204 of the Laws of Zambia).

²⁶³ A ‘project brief’ is defined in Regulation 2 as ‘a report made by the developer including preliminary predictions of possible impacts of a proposed project on the environment and constituting the first stage in the environmental impact assessment process.’ Although this definition refers to project brief as the first stage in the EIA process, a thorough reading of the Regulations reveals that this is only true in respect of projects in which the developer is required to produce a project brief. In projects not subject to the production of a project brief, for instance those projects listed in the Second Schedule and not listed in the First Schedule, the project brief does not constitute the first stage in the EIA process.

The project brief is required to state, among other things, the objectives and nature of the project and reasonable alternatives; the main activities that will be undertaken during site preparation and construction and after the development is operational; the raw and other materials that the project shall use; the products and by-products, including solid, liquid and gaseous waste generation; the noise level, heat and radioactive emissions, from normal and emergency operations; the expected impacts of the project; and a description of adverse impact mitigation measures and any monitoring programmes to be implemented: Regulation 4.

in the First Schedule, a project brief may be required in any project specified by the Environmental Council of Zambia: Regulation 3(2)(c). and the Second Schedule lists projects which require ‘environmental impact assessment.’²⁶⁴ Apart from those projects listed in the Second Schedule, an EIA may be required in any project specified by the Environmental Council of Zambia: Regulation 7(2)(c).

In the case of projects subject to project briefs, a developer must submit six copies of the project brief to the Environmental Council of Zambia (hereinafter ‘the Council’). If the Council considers the project brief to be complete, the Council submits the project brief to the authorising agency²⁶⁵ for comments. Upon receipt of the comments (or upon the agency’s failure to make comments), the Council is under a duty to consider the project brief. If the Council is satisfied that the project will have no significant impact on the environment, or that the project brief discloses sufficient mitigation measures to ensure the acceptability of the anticipated impacts, the Council is required to issue a decision letter²⁶⁶ to that effect, with conditions as appropriate, to the authorising agency.²⁶⁷ Where the Council is of the view that the project is likely to have a significant impact on the environment, it must require that an environmental impact statement (hereinafter ‘EIA report’) be prepared and must inform the developer accordingly.²⁶⁸

The EIA report must be prepared in accordance with Terms of Reference prepared by the developer in consultation with the Council. The Terms of Reference must take into account issues listed in the Third Schedule²⁶⁹ and the results of public consultations.²⁷⁰ The preparation of the EIA report may not begin until the Council has approved the Terms of

²⁶⁴The environmental impact assessment is not entirely distinct from the project brief. In some cases the project brief may be part of the environmental impact assessment: Regulation 2 (definition of project brief) and Regulation 7(1).

²⁶⁵Regulation 2 defines ‘authorising agency’ as ‘any Government ministry or department, public corporation, local authority or public officer in which, or whom, any law, regulation or bye-law vests the powers and functions to authorise, control or manage any aspect of a proposed or existing project.’

²⁶⁶A ‘decision letter’ is a letter issued by the Council stating that a proposed project is not likely to cause unacceptable environmental impacts or that the expected environmental impacts are unacceptable and an authorisation licence, permit or permission should not be issued: Regulation 2.

²⁶⁷Regulations 5 and 6.

²⁶⁸Regulation 7(1).

²⁶⁹The Third Schedule lists issues to be considered when preparing Terms of Reference under six main headings: (1) ecological considerations including biological diversity and sustainable use; (2) social, economic and cultural considerations; (3) landscape; (4) land use; (5) water; and (6) air quality.

²⁷⁰Regulation 8(1) to (4).

Reference.²⁷¹ After such approval, the developer must submit to the Council the names and qualifications of the persons who shall prepare the EIA report. The Council may approve or reject the name of any suggested person. Reasons must given for any rejection and an opportunity granted for the appointment of another person. The EIA must be conducted in accordance with guidelines articulated in the Fourth Schedule and additional guidelines specified by the Council.²⁷² The Fourth Schedule gives step-by-step guidance in conducting the EIA. It suggests eleven stages for the EIA: preliminary actions, for instance appointing a co-ordinator for the environmental impact study; scoping (or identification of potential impacts); baseline study; impact evaluation; public participation in the environmental impact study; identification of mitigation measures; assessment (or comparison of alternatives); decision-making by the developer; submission of the report to the Council; decision-making by the Council; and implementation of the project and post assessment audits.

Regulation 11 sets out the contents of an EIA report.²⁷³ Before submitting the report to the Council, the views of the people who will be affected by the project must be sought.²⁷⁴ Within seven days of receipt of the EIA report, the Council is required to transmit a copy of it to the authorising agency for comments. The Council must also make the EIA report available to the general public for the public's comments.²⁷⁵ Thereafter the Council will consider the EIA report and all the comments received to determine whether to issue a decision letter or hold a public hearing.²⁷⁶ In making a decision regarding an EIA report, the Council takes into account, among other things, the public's comments, the report of the person presiding at the public hearing and impact predictions and mitigation measures indicated in the EIA report.²⁷⁷ The Council may make one of three decisions:

²⁷¹The Terms of Reference must also include a direction that those responsible for preparing the EIA report provide information on all matters specified in Regulation 11 together with such other matters as are deemed necessary by the Council: Regulation 8(6). Regulation 11 sets out the contents of an EIA report.

²⁷²Regulation 9.

²⁷³These include a description of the project, an impact management plan, environmental impacts, a description of the technology and processes that shall be used and a description of the products and by-products of the project.

²⁷⁴Regulation 10.

²⁷⁵The Council makes the EIA report available to the general public, among other things, by distributing it to relevant government ministries and bodies and interested and affected parties; by placing copies of it in public buildings in the vicinity of the site of the proposed project; by placing a notification in at least two national newspapers three times per week for two consecutive weeks and broadcast a notification on national radio, detailing the place and times where copies of the EIA report are available for inspection and the procedure for submitting comments; by organising public meetings in the locality of the proposed project: Regulation 16.

²⁷⁶Regulation 17. This regulation further states that the Council is under a duty to hold a public hearing on the EIA report if (a) as a result of public comments up to this point, the Council is of the view that a public hearing will enable it to make a fair and just decision; or (b) the Council considers it necessary for the protection of the environment.

²⁷⁷Regulation 20.

- the project is approved;
- the project is rejected; or
- the project is approved subject to the developer meeting the stipulated conditions.²⁷⁸

Reasons for any rejections must be provided. If any party is aggrieved by the decision of the Council, that party may appeal to the Minister or, if he is not content with a decision of the Minister, he may appeal to the High Court.²⁷⁹

The developer is under an obligation to undertake an environmental audit of the project within a period of not less than 12 months and not more than 36 months after the completion of the project or the commencement of its operations, whichever is earlier, and submit an audit report to the Council. After the audit, the Council may require the developer to carry out specified remedial actions and further audits.²⁸⁰

The Zambian EIA system has a number of strengths. Firstly, there is considerable public participation. The public is involved as early as during the preparation of the Terms of Reference.²⁸¹ The public is at liberty to comment on the EIA report. The comments may be in writing and submitted to the Council or they may be oral and made at public meetings organised in the locality of the proposed project.²⁸² Secondly, the developer is allowed to exclude proprietary information²⁸³ from the project brief or EIA report.²⁸⁴ This has the merit of protecting a developer's economic interests from competitors, thus eliminating possible fear in the developer that engaging in EIA will prejudice his interests. Thirdly, unlike some EIA systems in the region, the Zambian EIA system expressly demands that reasonable alternatives and cumulative impacts must be indicated in the EIA report, and that

²⁷⁸Regulation 21. Regulations 30-33 are to the effect that the approval of the EIA report will be valid for three years. If no land preparation or construction work has started within three years, the developer must re-register with the authorising agency any intention to develop and may ultimately be required to prepare an additional EIA report.

²⁷⁹Regulations 22(1)(a) and 24.

²⁸⁰Regulation 28. This regulation further provides that the Council may also ask the developer to undertake an environmental audit at any time for any purpose. Regulation 29 states that an inspector may undertake investigations relating to the implementation of any condition or measure to be taken following an environmental audit.

²⁸¹Regulation 8(2).

²⁸²Regulations 10, 15-18 and 26.

²⁸³Regulation 2 defines 'proprietary information' as information relating to any manufacturing process, trade secret, trademark, patent, copyright, breeder's right or formula protected by law or by any international treaty to which Zambia is a party.

²⁸⁴Regulation 27.

environmental audits must be undertaken.²⁸⁵ Lastly, the system specifies periods of time within which particular steps must be taken,²⁸⁶ thus facilitating an expeditious decision-making process.

The system has its weaknesses. In the first place, Regulation 9 provides that the developer must submit to the Council for approval the names and *qualifications* of the persons appointed to prepare the EIA report. Although this is attractive in that unskilled persons may be barred from preparing the report, it has the disadvantage of leaving out the important element of experience. It is suggested that since it appears that there is a general lack of qualified EIA personnel in the country, experience in preparing EIA reports should be crucial in the approval process because some personnel may not be formally qualified to conduct the EIA and yet may be able to prepare, through experience, quality EIA reports. In the second place, Regulations 11 and 13 state that the EIA report must indicate whether the environment of any neighbouring state is likely to be affected, and that the Council may send a copy of the EIA report to the neighbouring state whose environment may be affected with a request for comments. It is submitted that involving the neighbouring state only after the EIA report has been prepared is rather late. It is better to contact the neighbouring state as soon as it is realised that the project is likely to have a transboundary impact and no later than the commencement of the process of preparing Terms of Reference, so that the neighbouring state may not only comment on the EIA process but also participate in it fully at its option. This is likely to reduce conflict and misunderstanding. Finally, the penalties are not stiff. Any person who fails to comply with the Regulations²⁸⁷ is liable to a maximum fine of only 100 000 Zambian Kwacha²⁸⁸ or imprisonment for a maximum period of only three years (or both).²⁸⁹ Compared with the penalties in the other systems in the region,²⁹⁰ these penalties are grossly inadequate and may ultimately not have or retain their deterrent effect.

²⁸⁵Regulations 11 and 28.

²⁸⁶For example, the Council must transmit a project brief to an authorising agency for comments within 7 days of receiving the project brief. Within 30 days of receiving the project brief, the authorising agency must make comments and transmit them to the Council. The Council may then issue a decision letter or inform the developer to prepare an EIA report within 40 days of receiving the project brief from the developer: Regulation 5-7.

²⁸⁷Some of the offences are: failing to prepare and submit a project brief or an EIA report, fraudulently making a false statement in a project brief, EIA report or environmental audit, and fraudulently altering an EIA report or project brief: Regulation 34(1).

²⁸⁸Approximately equivalent to ZAR 285.93 using the exchange rate of ZAR 1 = ZMK 349.73 (brought to the nearest two decimal points) as displayed on 7th January 2002 at http://www.absa.co.za/ABSA/Exchange_Rates/0,3028,,00.html

²⁸⁹Regulation 34(2) provides that a person who fails to comply with the Regulations shall have 'an authorisation, permit or licence suspended or cancelled.' This threat is not available to every offender under the Regulations. For example, it does not apply to persons who commit an offence while the EIA is being conducted because generally no authorisation, permit or licence is issued before the bulk of the EIA process has been completed.

3.2.7 Angola

Article 16(1) of Angola's Law No. 5/98 of 19 June 1998²⁹¹ declares that EIA is one of the principal tools of environmental management, the execution of which is compulsory for activities that will have impacts on the environment. Before constructing any infrastructure that may cause significant negative impacts on the social or natural environment, an EIA must be undertaken.²⁹² Environmental licensing based on EIA results precedes any other licence for activities that are likely to cause significant environmental impacts.²⁹³ As a minimum, the EIA report²⁹⁴ must contain a non-technical summary of the project, a description of the intended activities, a description of the site's environment prior to project implementation, a summary of public views, a description of the environmental impacts likely to be caused by the project, mitigation measures, and measures for controlling and monitoring the activities.²⁹⁵

No details of the highlighted aspects of EIA are given. The statute envisages the enactment of further legislation to set out the details.²⁹⁶ It is reported that in June 2001 Members of Parliament attended a seminar at which a number of issues were discussed including a law on EIAs.²⁹⁷ In the absence of this complementary law, a critical analysis of the Angolan EIA system would be incomplete, but it may still be noted that Law No. 5/98 identifies crucial steps in the EIA process, steps which when followed are likely to contribute to the production of EIA reports of high quality. However, Law No. 5/98 does not make compulsory the

²⁹⁰For instance, the maximum fine in Malawi is about ZAR 33 445; in Mauritius it is about ZAR 81 967; in Seychelles it is about ZAR 438 596; in South Africa it is ZAR 100 000. The maximum period of imprisonment in Mauritius is 12 years; in Seychelles it is 7 years; in South Africa it is 10 years. (Ref segments 3.2.1 to 3.2.4 of this monograph).

²⁹¹Copy reproduced in UNEP/UNDP *Compendium of Environmental Laws of African Countries* Volume I: Framework Laws and EIA Regulations (1998 Supplement to Volume I 1996 edition) (1998) at 3-11.

²⁹²Article 15.

²⁹³Article 17.

²⁹⁴Specifically the statute refers to 'environmental impact studies' (Article 16(3)). From the context it is arguable that the reference is to EIA report as is evident from the matters that are specified as the contents of the 'environmental impact studies'.

²⁹⁵Article 16(3).

²⁹⁶Articles 16(2) and 17(1).

²⁹⁷<http://www.angola.org/news/newsdetail.cfm?NID=3647>

consideration of alternatives and the carrying out of environmental audits.²⁹⁸ These omissions must be rectified if the full benefits of EIA are to be realised.

3.2.8 Mozambique

The EIA provisions of Mozambique's Law No. 97 of 1997²⁹⁹ are similar in many respects to those of Angola. Environmental licensing, environmental auditing and the minimum contents of an EIA report are identical in matters of substance.³⁰⁰ The statute indicates that many formalities or procedures of the EIA will be the subject of subsequent legislation. The similarity with the Angolan law is so striking that even the Angolan strengths and weaknesses (identified above) are applicable to the Mozambican EIA system.³⁰¹

3.3 EIA Policies in Southern Africa

3.3.1 General

It is not possible to analyse every line in government documents of the region that purports to be or to include a statement of EIA policy. Indeed, it appears that such statements are numerous.³⁰² Although policies may be honoured more in breach than observance, it is intended that this segment dwell on two EIA policies that have distinguished themselves from the rest in the region, namely, the EIA policies of Zimbabwe and Namibia.

²⁹⁸ Article 18 only calls for the auditing of existing activities (from the date on which the law was published) having no environmental and social protection measures. Apart from this, there is no general requirement that auditing be carried out on activities that have been the subject of an EIA.

²⁹⁹ Copy reproduced in UNEP/UNDP *Compendium of Environmental Laws of African Countries* Volume I: Framework Laws and EIA Regulations (1997 Supplement to Volume I 1996 edition) (1997) at 70-76.

³⁰⁰ Articles 15, 17 and 18. Public participation is provided for in a separate article: Article 8.

³⁰¹ Since the Mozambican Law appears to have been passed before the Angolan Law, it may be that the latter was modelled on the former. Alternatively, the drafters of these laws may have used a common precedent.

³⁰² Ref segment 1.6 of Part One of this treatise.

3.3.2 Zimbabwe

Within the last decade Zimbabwe launched an Environmental Impact Assessment Policy³⁰³ which outlines an EIA procedure. The policy applies to both private and public sector development activities. It prescribes the types of activities that are subject to it. A proponent (hereinafter ‘developer’) must prepare and present to the Minister of Environment and Tourism a ‘prospectus’ which is a document informing the Minister that a prescribed activity is being considered.³⁰⁴ On the basis of prescribed screening guidelines, the Ministry assesses whether or not an EIA report is necessary. If an EIA report is not required, the project is exempted from complying further with the EIA policy. If an EIA report is necessary, the developer must prepare a ‘preliminary environmental impact assessment’ (PEIA) report based on Ministry-approved Terms of Reference.³⁰⁵ After public consultation and review, the Minister may either approve the activity or require that a more detailed EIA study be undertaken on the ground that the PEIA indicates significant impacts. With regard to the latter, the developer must prepare a ‘detailed environmental impact assessment’ (DEIA) report.³⁰⁶ Public consultation in the DEIA is mandatory. The Ministry reviews the DEIA report and decides either to approve the activity or disapprove it on the ground that as proposed the activity would have unacceptable environmental impacts.³⁰⁷

The policy is commendable in many areas. It has considerable public consultation measures.³⁰⁸ It requires that formal review and approval of a DEIA report be conducted by a qualified, impartial body independent of the developer, the preparers of the report and the

³⁰³Ministry of Environment and Tourism, Harare, 1994.

³⁰⁴.The prospectus provides a basic description of the activity, including proposed environmental management measures, and indicates the status of the feasibility studies. It should be prepared and submitted during the pre-feasibility studies and provides sufficient information to allow the Ministry to determine the need for an EIA study based on established screening guidelines’. (Section 4.1 of policy).

³⁰⁵.A PEIA is a comprehensive initial assessment of the environmental impacts of an activity, based largely on existing information and field reconnaissance. It should be undertaken during the early feasibility studies. Its main purpose is to identify likely impacts, to estimate their severity, to indicate which impacts are liable to be significant, and to indicate what opportunities are available to avoid or minimise negative impacts and enhance potential benefits. A PEIA report includes proposals for monitoring and managing the anticipated impacts, especially those which accrue to local people’. (Section 4.2 of policy).

³⁰⁶.A detailed EIA (DEIA) is a detailed analysis of significant environmental impacts indicated by a PEIA. It is not comprehensive but focuses on those issues of primary concern. A DEIA involves sufficient project-specific field work to adequately study and analyse the issues to be addressed. It should be undertaken during detailed feasibility studies and in close liaison with engineering, financial and other project planners’. (Section 4.3 of policy).

³⁰⁷Section 4.3 of policy.

³⁰⁸Section 5 of policy.

project permitting or approval authorities.³⁰⁹ It relates the stages of the EIA process to feasibility studies,³¹⁰ thus making the process appear as part of the project cycle (as it should be) and not as an unwanted addendum to the project cycle.

The defects of the policy include a failure to establish size thresholds for prescribed activities,³¹¹ failure to provide guidance on what constitutes ‘more problematic activities’ requiring extensive public consultations,³¹² and absence of mandatory review of a DEIA report by outside experts or an independent review panel where such experts or panel were not retained to advise on the PEIA report.³¹³ By far the greatest defect is lack of enforcement measures, the EIA process being mere policy.

3.3.3 Namibia

Namibia’s Environmental Assessment Policy³¹⁴ declares that all policies, programmes and projects listed in its Appendix B, whether initiated by the government or the private sector, should be subjected to the environmental assessment (EA) procedure in its Appendix A.³¹⁵ The process begins with the presentation by a proponent (hereinafter ‘developer’) of a policy, programme or project proposal to the Environmental Commissioner who registers it and ensures that the developer fully understands the procedure. Using the list of activities in Appendix B, the Environmental Board decides on whether the policy, programme or project requires an EA or not.³¹⁶ If an EA is necessary, the Commissioner and Board must discuss

³⁰⁹Table 2 as read with section 4.3 of policy.

³¹⁰For instance the policy states that the prospectus must be prepared during the pre-feasibility studies; the PEIA during the early feasibility studies; and the DEIA during the detailed feasibility studies. (Sections 4.1, 4.2 and 4.3 of policy).

³¹¹The prescribed activities are listed in Table 3 of the policy.

³¹²Section 4.3 of the policy states, in part, that public consultation while undertaking a DEIA should involve, as a minimum, meeting principal stakeholders to inform them about the issues being addressed in the DEIA and to solicit their views about them. However, ‘[m]ore problematic activities should involve more extensive consultations’. No elaboration is given on the ‘more problematic activities’.

³¹³Section 4.3 of the policy states, in part, that ‘[i]f individual outside experts or an independent review panel were retained to advise on the PEIA report, their advice will be sought on the DEIA report’. The policy does not require that such advice be sought where the experts or panel were not retained on the PEIA stage. But it is possible for cases to arise which require the advice of the experts or panel on the DEIA report even though they were not retained to advise on the PEIA report. For instance, their not being retained on the PEIA stage may have simply been an oversight.

³¹⁴Cabinet Resolution 16.8.94/002; copy reproduced in UNEP/UNDP *Compendium of Environmental Laws of African Countries* Volume I: Framework Laws and EIA Regulations (1997 Supplement to Volume I 1996 edition) (1997) at 135-140.

³¹⁵Section 1 of policy.

³¹⁶If the policy, programme or project is not likely to result in significant impacts and/or if sufficient plans to maximise benefits have already been included, there will be no need for a formal EA. (Paragraph 4 of Appendix A of the policy).

with the developer the Terms of Reference for the EA study.³¹⁷ There are three main components of an EA: scoping,³¹⁸ investigation³¹⁹ and report.³²⁰ Once completed, an EA report is submitted to the Commissioner who reviews it with the assistance of, *inter alia*, local and/or outside experts. Thereafter the Commissioner must present the report to the board together with his recommendations. The Board will then make a decision as appropriate.³²¹ Whether or not the proposal is approved, there should be a record of the decision which must include reasons for the decision and any conditions of approval.³²²

The policy is meritorious to a certain extent. It incorporates international considerations into the EIA process.³²³ It takes into account secondary and cumulative environmental impacts of policies, programmes and projects.³²⁴ The responsibility for ensuring that appropriate monitoring takes place lies with the Commissioner and not with the developer.³²⁵ Public participation is required almost throughout the process.³²⁶

The policy is not a perfect document. It does not have an adequate enforcement mechanism. Appeals against the decisions of the Commissioner and/or Board are required to follow ‘the

³¹⁷Paragraph 4 of Appendix A of the policy.

³¹⁸Scoping determines the extent of and approach to the investigation, and should endorse the Terms of Reference. The developer, in consultation with concerned and affected parties, determines the alternatives and issues to be investigated, the procedural framework to be followed and report requirements. The scoping process should indicate, among other things, the authorities and sections of the public that are likely to be concerned and affected, the composition of the EA team and their Terms of Reference, and the degree of confidentiality required. (Paragraph 5(i) of Appendix A of the policy).

³¹⁹The Investigation includes literature research and field work, and is guided by the scoping decisions. It is intended to provide the board with enough information on the positive and negative aspects of the proposal, and feasible alternatives, with which to make a decision’. (Paragraph 5(ii) of Appendix A of the policy).

³²⁰The report should include, *inter alia*, a management plan, a monitoring programme, an environmental agreement and an audit proposal. (Paragraph 5(iii) of Appendix A of the policy). Section 5 of the policy states that the environmental agreement entered into by the developer must be based on the procedures and recommendations contained in the EA report and it helps to ensure that the mitigatory and other measures recommended in the EA and accepted by all parties, are complied with.

³²¹Paragraph 7 of Appendix A of the policy.

³²²Paragraph 9 of Appendix A of the policy.

³²³Section 2(v) of the policy and paragraph 3 of Appendix A of the policy. As defined in segment 1.3.1 of Part One of this treatise, environmental assessment (EA) consists of two processes: the EIA process and the strategic environmental assessment (SEA) process. This is in harmony with Namibia’s conception of EA. Accordingly Namibia’s EA includes an EIA process.

³²⁴Section 2(vi) of policy.

³²⁵Paragraph 12 of Appendix A of the policy. This is likely to contribute more significantly to environmental protection than in the case where the developer monitors himself.

³²⁶Paragraphs 3-9 of Appendix A of the policy.

normal legal principles and appeal procedures in Namibia,³²⁷ a situation that may lead to economically prejudicial delays in project approval and implementation. Moreover, the provision for appealing to the decision-making authority offends the fundamental tenets of adversarial justice since the authority cannot be judge in its own cause.³²⁸ Further, on what basis, one may ask, will appellants go to a court of law, this being only a policy and not a law? In addition, the policy's demand that the Board should consult the developer when deciding on whether the policy, programme or project requires an EA and when setting conditions of approval to the EA report is suspect.³²⁹ This may open the way to undue influence, especially when the developer is a government body. It is suggested that such consultation is superfluous.

3.4 Observations

The EIA systems of the SADC countries examined above have similarities. For instance, all require that an EIA report³³⁰ be prepared and many of the matters prescribed to be in the report are similar. However, these EIA systems have significant differences. Not all make public participation mandatory in the early stages. Only a few require that international considerations be taken into account. Further, the crucial steps of consideration of alternatives, monitoring and auditing are omitted from some systems. Even the strictness of enforcement measures³³¹ varies greatly. In the circumstances it is conceivable that a developer intending to implement an environmentally harmful project in the region will go forum shopping: he is likely to choose to invest in the country having the least rigorous EIA requirements. Such eventuality may ultimately prejudice the environment of another State since the environments of the SADC countries are interdependent, as demonstrated in Part Two. In addition, one State can gain unfair economic advantage over another by allowing the implementation of projects that would be rejected by the other State on environmental grounds.³³²

³²⁷Section 7 of policy.

³²⁸The decision-making authority will in effect be judge in its own cause because on the appeal the developer will be acting against the decision-making authority: the case will be Developer v Authority.

³²⁹Paragraphs 4 and 8 of Appendix A of the policy.

³³⁰Albeit under different designations or names.

³³¹For example the penalties for non-compliance.

³³²Cf Glasson et al op cit n21 at 43.

The absence of monitoring and auditing in some systems defeats the possibility or opportunity of learning from the past. Effective auditing and monitoring can provide a valuable data bank that may be useful in conducting future EIAs. The data bank enables EIA practitioners to learn from the teachings of experience. Consequently, time and resources devoted to future EIAs may be reduced.³³³ If this data bank is maintained on a regional level, the benefits will potentially be enjoyed by every State in the region; it will arguably benefit most those countries having the least EIA experience. At present the establishment of such a regional data bank is likely to be crippled by those EIA systems that exclude the monitoring and auditing stages.

It may further be observed that best EIA practice is likely to be enhanced in the region if there is some standard against which national EIA systems may be compared. Such a standard may be provided in a regional agreement on EIAs. In this connection, it may be recalled that some countries in southern Africa do not have EIA legislation, others only have detailed EIA policies while still others have superficial EIA legislation. A regional EIA agreement is likely to persuade or compel these States to put in place EIA legislation or to complete the process of legislating on EIAs.

In the premises it is submitted that EIA coordination in the region is not only desirable but a must, if progress in environmental protection is to be made in the face of the region's desire for integrated economic development.

PART FOUR

TOWARDS A SADC PROTOCOL ON ENVIRONMENTAL IMPACT ASSESSMENTS

³³³Glasson et al op cit n21 at 192. W Sheate *Environmental Impact assessment: Law and Policy. Making an Impact II* (1996) at 111 writes: 'Only by the knowledge, experience and understanding gathered as a result of post project monitoring can the effectiveness of the earlier EIA processes, i e identification and assessment of impacts, be seen. Predictions made in an environmental statement need to be tested against the reality once that project has been built. That information should then inform best practice, government guidance and local authority attitudes to future EIAs, including the scope of issues that should be addressed, alternatives, mitigation measures, monitoring requirements and the effectiveness of particular methodologies.'

4.1 General

It has been demonstrated in the previous two Parts that there is a need for coordination of EIAs in the southern African region. The present Part develops the argument further. It is contended that regional coordination will best be achieved through the adoption of a protocol to the Treaty of the Southern African Development Community 1992. It is suggested that such a protocol may be informed by the European Community Directive on EIAs³³⁴ and the Convention on Environmental Impact Assessment in a Transboundary Context 1991.³³⁵ The discourse begins with a brief note on the effectiveness of EIAs in the region.

4.2 Effectiveness of EIAs in Southern Africa

Most of the region's EIA systems are arguably ineffective. There are indications³³⁶ that several factors are responsible for this ineffectiveness. The factors include absence of a legal obligation to undertake EIAs, inadequate enforcement mechanisms,³³⁷ lack of monitoring and auditing, poor application of EIA legislation,³³⁸ and paucity of local EIA expertise. However, this does not mean that the region has not seen any quality EIAs. There is evidence that some SADC countries have conducted successful EIAs. By way of illustration, two EIAs will be discussed, one from Mozambique exemplifying an ineffective EIA and the other from South Africa exemplifying success.

4.2.1 MosaFlorestal EIA, Mozambique

³³⁴ Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment. It was amended by Directive 97/11/EC of 3 March 1997. A copy of the Directive is available on http://europa.eu.int/eur-lex/en/lif/dat/1985/en_385L0337.html

³³⁵ Adopted at Espoo, Finland on 25 February 1991 under the auspices of the United Nations Economic Commission for Europe, it is sometimes known as the 'Espoo Convention'. A copy of the convention is reproduced in 30 I L M 802 (1991) and in P Sands, R G Tarasofsky and M Weiss (eds) *Documents in International Environmental Law* Vol IIB (1994) at 1332-1350.

³³⁶ For instance, http://www.newafrica.com/environment/tz_eia_1.htm reports that '[t]here is currently no national legal requirement for EIA in Tanzania, nor supporting institutional mechanisms. There is also a lack of awareness at governmental level of the potential benefits that EIA can bring.' At <http://www.art.man.ac.uk/eia/Lf15.htm> it is stated that EIA is 'much less developed' in developing countries.

³³⁷ W Sheate *Environmental Impact Assessment: Law & Policy. Making an Impact II* (1996) at 104-105 writes that there are generally 'two main ways' of enforcement, namely, litigation and 'ombudsman' or enforcement agency: .

³³⁸ Poor application relates to the fact that while the appropriate legal and administrative machinery might be in place, in practice there is still a failure to implement the EIA legislation: cf Sheate op cit n4 at 126.

In 1987 the Mozambican Government promoted the establishment of a eucalyptus plantation, the MosaFlorestal Project, in the south of the country.³³⁹ The boundaries of the project were to be the Maputo River to the west, the Maputo Elephant Reserve to the north, the Indian Ocean coast to the east and the South African border to the south. The area covered the Maputaland Centre, one of the world's Centres of Plant Diversity.³⁴⁰ It has unique grasslands and many species of mammals, reptiles, birds, freshwater fish and other animal groups endemic or near-endemic to the centre.³⁴¹ Van Wyk opines that massive commercial afforestation in the core area of the Maputaland Centre would be a destructive activity of international concern. He states that in addition to the destruction of grassland and associated habitats, afforestation would have 'serious long-term effects on the hydrology of the region, thus destroying a significant part of one of the most remarkable natural ecosystems in the world, and a Mozambican natural resource asset of national and global importance'.³⁴²

Little consultation of relevant stakeholders took place in the EIA. Since there was no legal obligation to carry out an EIA, it appears that originally an EIA was not even intended. It was only after public outcry that foreign consultants were engaged to conduct the EIA. Tivane³⁴³ reports that the EIA did not meet many of the requirements demanded by EIA best practice. For instance, it became apparent that if the project was implemented, areas of peasant agriculture and of pasture would disappear but the EIA did not address the resettlement of this population (about 8 000 people). The EIA team denied incontestable visible evidence that the area had a high level of animal and plant diversity and therefore did not analyse adequately the project's effect on biodiversity. The EIA report made no reference to the Save

³³⁹ A Tivane 'An Analysis of Eucalyptization' in B Ferraz and B Munslow (eds) *Sustainable Development in Mozambique* (1999) at 223 states that the government invited the South African company, SAPPI Forests (Pty) Ltd, to enter into a joint venture with two state-owned enterprises SOCIMO and SOCHIEF. He alleges that the project was conceived in the context of the political and military situation existing at that time: South African support for RENAMO was continuing and it was hoped by Mozambican top policy strategists that granting some economic concessions to South Africa would help discourage South African destabilization of the country.

³⁴⁰ The worldwide Centres of Plant Diversity (CPD) project was initiated in the 1980s by the World Wide Fund for Nature (WWF) and the IUCN. The objectives of the project are: 'to identify which areas around the world, if conserved, would safeguard the greatest number of plant species; to document the many benefits, economic and scientific, that conservation of those areas would bring to society and to outline the potential value of each for sustainable development; to outline a strategy for the conservation of the areas selected. These objectives are fully consonant with the Convention on Biological Diversity. Although the original intention was to select between 150 and 200 sites of global priority, the total number finally chosen greatly exceeds these figures': <http://www.nmnh.si.edu/botany/projects/cpd/introduction.htm>

³⁴¹ A E van Wyk of the Department of Botany, University of Pretoria, South Africa, in his letter dated 12 October 1995 to Mozambican State President Joaquim Chissano, commenting on the commercial afforestation of southern Mozambique. Extracts from the letter have been reproduced in Ferraz and Munslow op cit n6 at 227-228.

³⁴² Ibid.

³⁴³ Op cit n6 at 224-226.

River forest, a proposed forest reserve.³⁴⁴ In general a substantial amount of information was missing. On a fair assessment, only 16.3% of the EIA was detailed and conclusive with regard to a particular reference point. The bulk of it was either superficial and inconclusive or failed to consider topics that were part of the terms of reference.³⁴⁵

The MosaFlorestal EIA failed to assist decision-makers in incorporating environmental considerations in the decision-making process. It appears to have been by sheer luck that the government decided in December 1996 to cancel the concession previously granted and to give MosaFlorestal the opportunity to choose another site for development.³⁴⁶

4.2.2 St Lucia EIA, South Africa

In June 1989 Richards Bay Minerals applied for mining rights in respect of its prospecting leases on the Eastern Shores of Lake St Lucia. In the following September the South African Cabinet directed that an EIA be undertaken. Three committees were appointed: a Coordinating Committee to report to the Cabinet; an Assessment Management Committee to ensure that the EIA was conducted; and a Review Panel to recommend to the Cabinet the likelihood of ‘unacceptable damage’, the preferred land-use option, and the conditions under which that option should be implemented. The Assessment Management Committee identified two land-use options. First, nature conservation and tourism, which would entail the removal of forestry plantations, the re-introduction of game and the development of tourism facilities. The proponent for this option was the Natal Parks Board. Secondly, mining, which would entail the removal of forestry plantations and the rehabilitation of the area to natural vegetation, but permitting nature conservation activities and tourism to be pursued at the same time where feasible. As stated, Richards Bay Minerals was the proponent for this option.³⁴⁷

Public participation was considerable. Individuals and groups, who had been identified as interested and affected parties, were consulted at various stages of the EIA process. The concerns of illiterate or non-English-speaking local people were sourced through a rural

³⁴⁴Tivane op cit n6 at 225 writes that in 1964 it was proposed that the Save River forest gallery become a forest reserve. He says the gallery ‘is regarded as one of the most interesting and important communities south of the Save River. Since it is within the project area, the possible impact on this gallery should have been studied in more detail.’ It is difficult to determine exactly what the writer means by ‘gallery’.

³⁴⁵Ibid.

³⁴⁶Tivane op cit n6 at 226.

³⁴⁷CSIR Environmental Services *Environmental Impact Assessment: Eastern Shores of Lake St Lucia (Kingsa/Tojan Lease Area)* Vol 3 Environmental Impact Report (1993) at xv-xvi.

liaison programme. Basic research studies of the project area were undertaken, culminating in the production of 23 specialist reports. After public comment, these reports were revised where necessary. The Assessment Management Committee compiled a list of the key issues of relevance to both land-use options and reports on these issues were prepared. Thereafter the environmental impact report (hereinafter 'EIA report') was drawn up.³⁴⁸ The EIA report revealed, among other things, that mining would cause very high negative impacts on terrestrial vegetation, topography, biodiversity, historical heritage of the Eastern Shores, and visual quality of the Eastern Shores's landscapes. It would also affect negatively terrestrial animals, soils, wetlands, visitors' perceptions of the quality of the environment in the St Lucia subregion, and sense of place. However, mining would increase the knowledge of Iron Age sites if archaeological material exposed by mining could be used for study. In addition, mining would bring in millions of Rands. On the other hand, the nature conservation and tourism option (without mining and with full ecotourism development) would not have as much negative impacts on the physical, biological and social environment, but the economic gains would be far below those from mining.³⁴⁹

The EIA report was criticised at length by interested and affected parties.³⁵⁰ Some critics even alleged that the report was biased in favour of mining.³⁵¹ If the EIA process were ending with the production of the report, perhaps the accusation would have made much sense, but the process demanded that the report be reviewed by the Review Panel which made recommendations to the Cabinet only after hearing representations from interested and affected parties. The Review Panel categorically stated that the charge that the report was 'biased in the pejorative sense' was 'unfair and unjust'; on the contrary the report displayed 'an objective and highly professional approach.'³⁵² In reaching a value judgment on the acceptability of mining, the Review Panel, among other things, considered that 'mining the Eastern Shores would cause unacceptable damage to a place which is special because of its rich history, ecological and biological diversity and the significance it has in the eyes of its

³⁴⁸ Ibid.

³⁴⁹ CSIR Environmental Services *Environmental Impact Assessment: Eastern Shores of Lake St Lucia (Kingsa/Tojan Lease Area)* Vol 3 Summary Report (1993) at 16-22.

³⁵⁰ For instance J Ridl, on behalf of the Wilderness Action Group, is reported to have charged that the report 'demonstrated a lack of understanding by the authors of the concept of wilderness' and that the report's recommendation that the development of an ecotourism industry simultaneously with mining could be done by developing the north of the Eastern Shores, was unacceptable 'as any encroachment upon the wilderness zone would result in the irreversible destruction of the wilderness character of the zone': R N Leon, S Hotz, H Ngubane, C M Breen and R Soni *Eastern Shores of Lake St Lucia (Kingsa/Tojan Lease Area)* Review Panel Report (undated) at 78.

³⁵¹ Leon et al op cit n17 at 10.

³⁵² Ibid.

many visitors. This unique combination makes the Greater St Lucia Area a very special asset for the nation. There is no substitute.³⁵³ The Panel recommended that no mining should be allowed.

It is submitted that this EIA was a success as it achieved its objective, namely, to assist in incorporating environmental considerations in the decision-making process.³⁵⁴ It also had many of the aspects prescribed by EIA best practice.³⁵⁵

However, as indicated above, the effectiveness of this EIA is an exception rather than the rule in EIA practice in the region. The reasons for this general ineffectiveness (pointed out earlier on) may arguably be overcome to a considerable extent if the SADC coordinates the EIA systems of the region. The premises of this suggestion will now be explored in detail.

4.3 The Relevance of SADC in EIA Coordination

As noted in Part One, the SADC is a regional integration organisation. The founding Heads of State or Government felt that our ‘common cultural and social affinities, common historical experiences, common problems and aspirations’ provided ‘a firm and enduring foundation for common actions to promote regional economic welfare, collective self-reliance and integration; in the spirit of equity and partnership.’³⁵⁶ The core objective of the organisation is arguably ‘to achieve development and economic growth, alleviate poverty, enhance the standard and quality of life of the peoples of Southern Africa and support the socially disadvantaged through regional integration.’³⁵⁷ The pursuit of this objective may, however, involve the establishment of a regional trading market that creates direct links between economic activities in one State and environmental degradation in another.³⁵⁸ Accordingly, the economic development objective calls for a complementary environmental objective in order to make economic development sustainable. The SADC Treaty recognises

³⁵³ Leon et al op cit n17 at 1.

³⁵⁴ P H Sand (ed) *The Effectiveness of International Environmental Agreements: a Survey of Existing Legal Instruments* (1992) at 8-9 seems to suggest that success or effectiveness may be measured by inquiring whether objectives have been met.

³⁵⁵ For instance broad public participation, stringent review procedures, enforceability and comparison of alternatives.

³⁵⁶ Declaration Regarding the Establishment of the Southern African Development Community 1992 32 I L M 267 (1993) at 268.

³⁵⁷ Article 5(1)(a) of SADC Treaty.

³⁵⁸ Cf J Glazewski *Environmental Law in South Africa* (2000) at 67-68.

this in stipulating that the SADC shall seek to ‘achieve sustainable utilisation of natural resources and effective protection of the environment.’³⁵⁹ Such protection of the environment is only likely to be accomplished if EIA is used in the decision-making processes. Consequently, it is imperative for the SADC to spell out the EIA parameters. In so doing it will provide its member states with guidance on the EIA process. It may also help in enforcing the implementation of EIA in the countries of the region.

SADC EIA coordination has two other benefits. In the first place, it may level the economic playing field in the sense that it may ensure that no distortion of competition arises through which some member states gain unfair advantage by allowing the implementation of projects that may be rejected by others on environmental grounds.³⁶⁰ In the second place, it is likely to increase EIA training opportunities. The EIA-coordination-constituting instrument may provide for the establishment of a regional EIA training centre to which SADC member states will be required to send their people for EIA training in the absence of substitute municipal institutions.

Having demonstrated the relevance of the SADC, it must next be appreciated that there are at least three ways in which EIA may be coordinated on a regional level. First, by amending the SADC Treaty. Secondly, by formulating under the auspices of the SADC an entirely separate and new EIA convention for the region. Thirdly, by adopting a protocol to the SADC Treaty.

Article 36 of the SADC Treaty provides that the treaty may be amended by a decision of three-quarters of all the Members of the Summit of Heads of State or Government. So it is possible for the treaty to be amended to incorporate detailed EIA coordination provisions. The credit of this device lies in its ability to facilitate the avoidance of a new round of ratification at the point of introduction of the coordination measures and even every time the EIA provisions need to be ‘fine tuned’ in light of new technological and other developments.³⁶¹ However, amendment is likely to offend seriously the structure of the treaty, for the treaty apparently does not envisage inclusion in the main text of extensive provisions on any of its areas of cooperation (which include the environment).³⁶²

³⁵⁹ Article 5(1)(g).

³⁶⁰ Cf J Glasson, R Therivel and A Chadwick *Introduction to Environmental Impact Assessment* 2ed (1999) at 43.

³⁶¹ Cf L Susskind and C Ozawa ‘Negotiating More Effective International Environmental Agreements’ in A Hurrell and B Kingsbury (eds) *The International Politics of the Environment* (1992) 142 at 154.

³⁶² Article 22(1) of the treaty actually calls for the adoption of protocols in each area of cooperation.

Negotiating an entirely separate convention for the region is objectionable on the ground that it will be or may appear to be divorced from the SADC, the region's engine of integrated economic development. It is reasonably foreseeable that a SADC member state desiring to pursue its development policies without the demands arising from EIA coordination will simply ignore such a separate convention.

By far the most appropriate mechanism for EIA coordination in the region is through the adoption of an EIA protocol to the SADC Treaty. It is not open to the criticisms of the first two mechanisms and it is sanctioned by the treaty itself. Article 22(1) of the treaty is in the following terms:

‘Member States shall conclude such Protocols as may be necessary in each area of cooperation, which shall spell out the objectives and scope of, and institutional mechanisms for, cooperation and integration.’

Article 21(3)(e) of the treaty identifies ‘natural resources and the environment’ as one of the areas of cooperation. It follows that the adoption of a protocol on environmental impact assessment falls within the confines of the spirit and intent of the treaty. The obvious disadvantage is the need for signature and ratification by the parties to it and the not-too-remote possibility of some States dragging their feet in doing so.³⁶³ This deficiency may be cured by stipulating in the SADC Treaty that signature and ratification of the protocol are the *conditiones sine quibus non* of continued membership of SADC after a specified period of grace.³⁶⁴

For the protocol to be successful, it must be flexible enough to accommodate the unique features and interests of the countries of the region,³⁶⁵ but it must not be so flexible as to lead to fundamental differences in its implementation. It must also have strong compliance monitoring and enforcement provisions. Admittedly, monitoring and enforcement may be difficult because ‘they conflict with the prerogatives of national sovereignty. Yet, without effective monitoring and enforcement, real implementation of any agreement is highly

³⁶³Cf T Swanson ‘Negotiating international environmental agreements: bargaining problems over common resources’ in T Swanson and S Johnston *Global Environmental Problems and International Environmental Agreements. The Economics of International Institution Building* (1999) at 136 where he notes that no international resource convention has been accepted by all states.

³⁶⁴Cf Susskind and Ozawa *op cit* n28 at 154.

³⁶⁵E.g. South Africa's desire to remove or alleviate the evils of apartheid must be accommodated.

unlikely.³⁶⁶ Thus, the best intentions expressed in the protocol may remain mere paper guarantees.

One of the things the protocol should provide for is the requirement that States enact legislation or amend their existing statutes with a view to implementing the protocol, but such a suggestion may not find favour with some commentators. Jones, for instance, argues that

‘the destruction of the world’s life-support systems is proceeding at such a pace and, indeed, has already gone so far, has cut so deep into the delicate fabric of the natural world that no conventional response is adequate to deal with it. Now by conventional response, I mean of course, a framework of environmental law to punish polluters, protect finite resources and steer society into a new way of living. Such a response is, in my view, totally inadequate to the scale of the problems we face ... I do not believe that the conventional political process or the law, which arises from that process and is the result of bargaining and compromise between the various political parties and interested groups represented in that political process has any meaningful role to play in tackling or finding solutions to the multiple environmental crises we face.’³⁶⁷

With due respect, it is submitted that the views of Jones are untenable because in the absence of all environmental law, little in the way of environmental protection will be achieved. For there is empirical evidence that anarchy has never spurred progress in any facet of society. The events of Somalia after the fall of the Siad Barre regime, albeit not strictly limited to environmental chaos, attest to the vanity of rejecting law.³⁶⁸

The discussion will now focus on the E C Directive and the Espoo Convention. As the Holy Writ³⁶⁹ says, ‘Iron sharpens iron, so one man sharpens another,’ it is intended that the lessons to be learnt from the two instruments inform the process of formulating the SADC protocol.

³⁶⁶Susskind and Ozawa op cit n28 at 153.

³⁶⁷‘Environmental law - too little, too late’ in O Lomas (ed) *Frontiers of Environmental Law* (1991) 68 at 68-69. At 70 Jones declares that ‘[t]he law has an important function to perform’ but adds that none of what the law may do or what may be done through the law ‘will scratch the surface of the problems’. At 73 he asks, ‘[W]hat price the law in this crisis? What role do you see the law playing in alerting people to the scale of the crisis? That’s not the role of the law and, in any case, the law can’t run ahead of the legislative process’. It is clear from these statements (and from the sum total of his views in the article) that Jones is paying sheer lip-service to the ‘important function’ of law. He is essentially urging that environmental law is largely useless; what is needed is extensive public awareness campaigns to alert people ‘to the very real nature of our crisis and ... persuade them of the very real changes that we ... must accept and implement in our lives’. (At 73).

³⁶⁸After the ousting of the Siad Barre government in Somalia, the country was plunged into anarchy. There was general breakdown in the rule of law. It appears that people were potentially free to do whatever they wanted. Environmentally prejudicial acts (e.g the wanton clearing of forests) could therefore be committed with impunity. For relevant details on the country see <http://www.cia.gov/cia/publications/factbook/geos/so.html#Intro>

³⁶⁹*The Holy Bible* New American Standard Bible (1995) Proverbs 27:17.

4.4 The European Community³⁷⁰ EIA Directive

E C Directive 85/337/EEC as amended by Council Directive 97/11/EC of 3 March 1997³⁷¹ applies to the assessment of environmental effects of those public and private projects which are likely to have significant effects on the environment.³⁷² Article 2 calls upon European Community member states to adopt all measures necessary to ensure that, before consent is given, projects likely to have significant effects on the environment by virtue, *inter alia*, of their nature, size or location are made subject to a requirement for development consent³⁷³ and an assessment with regard to their effects.³⁷⁴ The EIA must identify, describe and assess the direct and indirect effects of a project on (a) human beings, fauna and flora; (b) soil, water, air, climate and the landscape; (c) material assets and cultural heritage; and (d) the interaction between the factors mentioned in (a) to (c).³⁷⁵

It is mandatory for projects listed in Annex I to be made subject to an EIA. For Annex II projects, member states should determine through (a) a case-by-case examination, or (b) thresholds or criteria set by the member states, whether the project should be made subject to an EIA.³⁷⁶ The determination must be open to public scrutiny.³⁷⁷

Member states must take the necessary measures to ensure that, in the case of projects subject to EIA, a developer supplies the information specified in Annex IV.³⁷⁸ The developer may

³⁷⁰The European Community is currently known as the European Union. The change came after the Directive had already been adopted. For the sake of convenience, reference will still be made to the European Community.

³⁷¹Consolidated version reproduced in Glasson et al op cit n27 at 428-444.

³⁷²Article 1(1) of the Directive.

³⁷³'Development consent' is defined in Article 1(2) as 'the decision of the competent authority or authorities which entitles the developer to proceed with the project'.

³⁷⁴Article 2(2) provides that the EIA may be integrated into the existing procedures for consent to projects in the member states, or failing this, into other procedures or into procedures to be established to comply with the aims of the Directive.

³⁷⁵Article 3.

³⁷⁶Member states may decide to apply both procedures in the determination. In carrying out a case-by-case examination or setting the thresholds or criteria, the relevant selection criteria listed in Annex III must be taken into account. (Article 4(1) to (3)).

³⁷⁷Article 4(4).

³⁷⁸In as much as : (a) Member States consider that the information is relevant to a given stage of the consent procedure and to the specific characteristics of a particular project or type of project and of the environmental features likely to be affected; (b) the Member States consider that a developer may reasonably be required to compile this information having regard *inter alia* to current knowledge and methods of assessment.' (Article 5(1)). The information listed in Annex IV includes (i) a

request the competent authority³⁷⁹ in a member state to give an opinion on the information to be supplied.³⁸⁰ Any authorities holding relevant information must make it available to the developer.³⁸¹ Further, member states must take the measures necessary to ensure that the public and the authorities likely to be concerned by the project by reason of their specific environmental responsibilities, are given an opportunity to express their opinion on the information supplied by the developer and on the request for development consent.³⁸²

Where a project intended to be carried out in one member state is likely to have significant effects on the environment in another member state, the project state is required to send to the affected state,³⁸³ among other things, a description of the project together with any available information on its possible transboundary impact, and information on the nature of the decision which may be taken. It may also send the information supplied by the developer and by relevant authorities, pertinent information regarding the EIA procedure, and the request for development consent. The affected state must be given reasonable time in which to indicate whether it will participate in the EIA procedure. The information must be given to the affected state's public and responsible authorities³⁸⁴ for their comments which must be forwarded to the project state within a reasonable time. The member states concerned are enjoined to enter into consultations regarding the potential transboundary effects of the project and the measures envisaged to reduce or eliminate such effects and they must agree on a reasonable time frame for the duration of the consultation period.³⁸⁵

description of the project; (ii) an outline of the main alternatives studied by the developer and an indication of the main reasons for this choice, taking into account the environmental effects; (iii) a description of the aspects of the environment likely to be significantly affected by the proposed project; (iv) a description of the likely significant effects of the proposed project on the environment; (v) a description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment; (vi) a non-technical summary of the information provided under the above headings; and (vii) an indication of any difficulties (technical deficiencies or lack of know-how) encountered by the developer in compiling the required information.

³⁷⁹ The competent authority or authorities is or are that or those which the member states designate as responsible for performing the duties arising from the Directive. (Article 2(3)).

³⁸⁰ Member states may require the competent authorities to give the opinion, irrespective of whether the developer so requests. (Article 5(2)). Before giving its opinion the competent authority must consult the developer and the authorities likely to be concerned by the project by reason of their specific environmental responsibilities.

³⁸¹ Article 5(4).

³⁸² Article 6. This article further states that arrangements for such information and consultation must be determined by member states.

³⁸³ It must send the information as soon as possible and no later than when informing its own public. (Article 7(1)).

³⁸⁴ These authorities are those likely to be concerned by the project by reason of their specific environmental responsibilities. (Article 7(3)(a) as read with Article 6(1)).

³⁸⁵ Article 7. This Article also states that the member states may determine the detailed arrangements for implementing the Article.

When making a decision to refuse or grant development consent, the information referred to above and the results of consultation must be taken into account.³⁸⁶ The public, and any member state consulted in transboundary impact negotiations, must be informed of the decision made. In particular, the public and member state must be told the content of the decision and any conditions attached thereto; the main reasons and considerations on which the decision is based; and a description, where necessary, of the main measures to avoid, reduce and, if possible, offset the major adverse effects.³⁸⁷

Member states and the Commission of the European Community are under an obligation to exchange information on the experience gained in applying the Directive.³⁸⁸ On the basis of the exchange of information, a report on the application and effectiveness of the Directive (that is, as amended by the 1997 Directive) is required to be prepared five years after the entry into force of the Directive (that is, as amended). Using the report, the Commission shall, where appropriate, make proposals for ensuring further coordination in the application of the Directive.³⁸⁹ Member states were directed to bring into force the laws, regulations and administrative provisions necessary to comply with the Directive by 14 March 1999 at the latest.³⁹⁰

The Commission has the duty of enforcing the Directive.³⁹¹ There are several mechanisms which it may employ in executing this task. Apart from sending formal letters to member states reminding them of the necessity of adapting their national laws to be in line with the Directive, the Commission may develop action under Article 169.³⁹² This provision in the following terms:

³⁸⁶ Article 8.

³⁸⁷ Article 9.

³⁸⁸ Article 11(1). Article 11(2) provides that in particular the member states must inform the Commission of any criteria and/or thresholds adopted for the selection of the projects in question. In this connection, it is worth noting that the Directive does not affect the obligation on competent authorities to respect the limitations imposed by national regulations and administrative provisions and accepted legal practices with regard to commercial and industrial confidentiality, including intellectual property, and the safeguarding of the public interest: Article 10.

³⁸⁹ Article 11(3) and (4).

³⁹⁰ Article 12.

³⁹¹ Article 155 of the E C Treaty (renumbered as Article 211 by the Treaty of Amsterdam 1997) provides that the Commission has the task of ensuring that 'provisions of the Treaty and the measures taken by the institutions pursuant thereto are applied'. L Kramer *E C Treaty and Environmental Law* 3ed (1998) at 166 notes that '[t]he Treaty provides no means to enable the Commission to assume this function'.

³⁹² Renumbered as Article 226 by the Treaty of Amsterdam 1997.

‘If the Commission considers that a Member State has failed to fulfill an obligation under the Treaty, it shall deliver a reasoned opinion on the matter after giving the State concerned the opportunity to submit its observations. If the State concerned does not comply with the opinion within the time laid down by the Commission, the latter may bring the matter before the [European] Court of Justice.’³⁹³

If a member state fails to comply with a judgment, the court may make that member state pay ‘a lump sum or a penalty payment.’³⁹⁴ The member state may be held liable to private individuals.³⁹⁵

The E C Directive EIA procedure has not escaped criticism. Lambrechts³⁹⁶ notes that Article 2 of the Directive exempts from the EIA process ‘projects the details of which are adopted by a specific act of national legislation, since the objectives of this Directive, including that of supplying information, are achieved through the legislative process.’ He contends that ‘[t]he reasons given to justify this ... exemption are not very persuasive. Even if it is to be assumed that the legislative process warrants a measure of democratic information, it is doubtful that it takes special care of the environment. Consideration of the environmental impacts of legislative prescriptions is not yet a reality with most national parliaments.’³⁹⁷ Kramer³⁹⁸ submits that the general wording of the Directive often allows for circumvention of its provisions. The Directive is also ‘remarkably silent’ on the issue of post project monitoring and auditing.³⁹⁹ Further, it is arguable that the Directive does not adequately address the case

³⁹³ As quoted in Kramer op cit n58 at 169.

³⁹⁴ Kramer op cit n58 at 171, citing Article 171 of the E C Treaty (renumbered as Article 228 by the Treaty of Amsterdam 1997) as authority.

³⁹⁵ Kramer op cit n58 at 171-172.

³⁹⁶ ‘Environmental Impact Assessment’ in G Winter (ed) *European Environmental Laws: a Comparative Perspective* (1996) 63 at 65.

³⁹⁷ Ibid. Cf Glasson et al op cit n27 at 48-50.

³⁹⁸ Op cit n58 at paragraph 1.11. He writes that in particular the general wording allows for circumvention ‘by deciding on (the siting or the realisation of) a project before the impact assessment is made or by leaving the results of consultation and participation of the public unconsidered at the final decision.’ (Ibid). Cf J Scott *E C Environmental Law* (1998) at 126 where she opines: ‘Language such as “where Member States consider” or “significant effects” is such as to preserve Member State autonomy and to render judicial review problematic.’

³⁹⁹ Sheate op cit n4 at 111-112.

of transboundary impacts as will be apparent when the Espoo Convention is analysed below.⁴⁰⁰

In light of these deficiencies, ‘wholesale’ modelling of the SADC protocol on the E C Directive is out of the question. Only the credits of the Directive may be used as a precedent. Some of these credits are the public participation requirements, the time limits on municipal implementation of the Directive and the five year review provision. Setting a deadline for national implementation of the SADC protocol is likely to stimulate speedy compliance with the protocol.⁴⁰¹ Reviewing the protocol is likely to assist SADC states in knowing whether any progress is being made in EIA coordination in the region.

Even partial modelling should be approached with caution, for there are crucial differences between E C member states and SADC member states. There are differences in environmental conditions,⁴⁰² technological differences, differences in the significance of environmental impacts,⁴⁰³ institutional and regulatory differences,⁴⁰⁴ and differences in arrangements for consultation and public participation.⁴⁰⁵ These remarks also apply to the Espoo Convention considered in the next segment.

4.5 Convention on EIA in a Transboundary Context

⁴⁰⁰ Further criticism, especially criticism of the Commission’s enforcement initiatives, may be read in Kramer op cit n58 at 178-180 and Scott op cit n65 at 150-153.

⁴⁰¹ In the European Community it is reported that although some states failed to meet the deadline set by the Directive, many states complied with at least laying down the EIA basics: Glasson et al op cit n27 at 47; P Sands *Principles of International Environmental Law I: Frameworks, Standards and Implementation* (1995) at 587. Kramer op cit n58 at paragraph 1.11 states, ‘It [the Directive] has undoubtedly had some influence on administrative planning at local and regional level in Member States’.

⁴⁰² The SADC countries are located in tropical areas. ‘Environmental models, dose-response relationships and environmental quality standards appropriate to temperate conditions may not apply to them. Also, the data needed to use the more sophisticated models developed in the West may not exist in [SADC countries]. The extent to which this can be remedied by additional monitoring may be severely limited by the time and resources available’: <http://www.art.man.ac.uk/eia/Lf15.htm>

⁴⁰³ The level of significance attached to particular environmental impacts may differ considerably between a “typical” [E C member state and SADC member state]. In some traditional societies, much higher values are assigned to particular environmental assets than would be the case in modern western societies. On the other hand, low-income groups tend to attach greater significance to socio-economic rather than purely environmental impacts than do high-income groups’: <http://www.art.man.ac.uk/eia/Lf15.htm>

⁴⁰⁴ In many SADC countries the institutional structures for environmental protection are generally weak. Under-staffing and insufficient training are common: <http://www.art.man.ac.uk/eia/Lf15.htm>

⁴⁰⁵ The methods of consultation and public participation used in E C member states may not be appropriate in the SADC countries where societies are more traditional and there are lower levels of education and literacy: <http://www.art.man.ac.uk/eia/Lf15.htm>

The Convention on Environmental Impact Assessment in a Transboundary Context adopted at Espoo, Finland in 1991, is geared towards enhancing international cooperation among its parties⁴⁰⁶ in assessing the transboundary environmental impact of activities. Each party is required to take the necessary legal, administrative or other measures to implement the provisions of the convention including, with respect to proposed activities listed in Appendix I that are likely to cause significant adverse transboundary impact, the establishment of an EIA procedure that permits public participation and preparation of the EIA documentation described in Appendix II.⁴⁰⁷ The party in which a proposed activity is envisaged (hereinafter ‘party of origin’) must ensure that an EIA is undertaken prior to a decision to authorise or undertake a proposed activity listed in Appendix I that is likely to cause a significant adverse transboundary impact.⁴⁰⁸ Affected parties must be notified of the proposed activity and the public in the areas likely to be affected must be given an opportunity to participate in relevant EIA procedures.⁴⁰⁹ Parties may decide, by mutual consent, to extend the convention’s application to activities not listed in Appendix I but which are likely to cause a significant adverse transboundary impact.⁴¹⁰

The convention lays down minimum content requirements for the EIA documentation which must be submitted to the competent authority of the party of origin.⁴¹¹ The EIA documentation must be made available to the affected party and distributed to the authorities and the public of the affected party in the areas likely to be affected. Comments must be submitted to the competent authority of the party of origin before the final decision is taken on the proposed activity.⁴¹²

⁴⁰⁶ Articles 16 and 17 of the convention indicate that the convention is open for signature, ratification, acceptance, approval or accession by members of the United Nations Economic Commission for Europe (UNECE), by states having consultative status with UNECE pursuant to paragraph 8 of the Economic and Social Council resolution 36 (IV) of 28 March 1947, and by regional economic integration organizations constituted by sovereign state members of UNECE. It appears that no SADC member state is a party to the convention.

⁴⁰⁷ Article 2(2) of convention.

⁴⁰⁸ Article 2(3).

⁴⁰⁹ Article 2(4) and 2(6). The latter further states that the opportunity provided to the public of the affected party must be equivalent to that provided to the public of the party of origin. Article 3 sets out the details of the notification procedure. It is in many respects similar to that in the E C Directive (as amended). It appears that the Directive’s provisions on transboundary environmental impacts were modelled on the convention: cf Sheate op cit n4 at 209.

⁴¹⁰ Article 2(5) and Sands et al op cit n2 at 1332. The criteria for determining what constitutes significant adverse impact are set forth in Appendix III.

⁴¹¹ The minimum contents are listed in Appendix II.

⁴¹² Article 4.

After completion of the EIA documentation, the party of origin must engage the affected party in consultations concerning, among other things, the potential transboundary impact of the proposed activity and measures to reduce or eliminate its impact.⁴¹³ In the final decision on the proposed activity, due account must be taken of the outcome of the EIA, including the EIA documentation as well as the comments thereon, and the outcome of the consultations. The party of origin must furnish the affected party with the final decision along with the reasons and considerations forming its basis.⁴¹⁴

A post-project analysis may be undertaken. Such analysis must include the surveillance of the activity and the determination of any adverse transboundary impact. Where there are reasonable grounds for concluding that there is a significant adverse transboundary impact or factors have been discovered which may result in such an impact, the concerned parties are required to consult on necessary measures to reduce or eliminate the impact.⁴¹⁵

The parties may continue existing or enter into new bilateral or multilateral arrangements in order to carry out their obligations under the convention.⁴¹⁶ They are called upon to give special consideration to the setting up, or intensification of, specific research programmes.⁴¹⁷

Writers⁴¹⁸ generally agree that this convention is more elaborate than the E C Directive on projects that are likely to cause adverse transboundary environmental impacts. The detail given has the potential of positively restricting the discretion of parties in their establishment of national EIA systems and so facilitating coordination. It is therefore recommended that the SADC protocol draw considerably from the convention on the transboundary impact aspect. For instance, where a proposed activity is likely to cause a significant adverse transboundary

⁴¹³The consultations may relate to: (a) possible alternatives to the proposed activity, including the no-action alternative and possible measures to mitigate significant adverse transboundary impact and to monitor the effects of such measures at the expense of the party of origin; (b) other forms of possible mutual assistance in reducing any significant adverse transboundary impact of the proposed activity; and (c) any other appropriate matters relating to the proposed activity. (Article 5).

⁴¹⁴Article 6. In addition this Article provides that if further information on the significant transboundary impact of a proposed activity, which was not available at the time a decision was made with respect to that activity and which could have materially affected the decision, becomes available to a concerned party before work on that activity commences, that party shall immediately inform the other concerned party or parties. If one of the concerned parties so requests, consultations shall be held as to whether the decision needs to be revised.

⁴¹⁵Article 7.

⁴¹⁶The arrangements may be based on the elements listed in Appendix VI. (Article 8).

⁴¹⁷Article 9.

⁴¹⁸Sheate op cit n4 at 208; Sands op cit n68 at 588.

impact, the protocol should require adequate and effective notification and consultations along the lines of the detailed procedures of Articles 3 and 5 of the convention. It should further demand, using Article 6 of the convention as precedent, that the outcome of the consultations and the outcome of the EIA including the EIA documentation and the comments thereon generated from the notification procedure, be taken into account in making the final decision on the proposed activity. Post project analysis, bilateral and multilateral arrangements, research programmes and arbitration (settlement of disputes) may also be modelled on the convention.

In the next Part these views as well as the views expressed in the earlier part of the present Part will be tied together with the threads of argument developed in the preceding Parts. Thereafter, concluding remarks will be appended.

PART FIVE

CONCLUSION

Environmental impact assessment is one of the indispensable tools of sound environmental management. Through its use, projects that have significant detrimental impacts on the conservation and sustainable utilisation of natural resources and on the environment generally can be identified, reformulated and/or rejected. In itself, the EIA process does not decide whether a proposed project will go ahead or not. EIA simply highlights the likely opportunity cost of taking particular courses of action, with sustainable use of the environment as the touchstone.

Ever since the United States of America's National Environmental Policy Act 1969 introduced EIA, EIAs have spread to over 100 countries in the world. In Southern Africa the idea appears to have been received with different attitudes. Some countries of the region have formally introduced EIAs through legislation, policies and administrative guidelines. However, a considerable number of the enactments are partial: they do not set out detailed EIA procedures; rather they envisage the promulgation of complementary legislation. In other countries of the region, sheer unwillingness to formally introduce EIAs is evident. In most of these, EIA is conducted on a voluntary basis or when funding organisations demand it as a prerequisite to (continued) funding.

Although in the majority of states in the Southern African region EIA has now been known for a decade or more, the EIAs conducted so far have largely been ineffective due to problems ranging from absence of a legal obligation to conduct EIAs to lack of local EIA expertise. The solutions to these problems are arguably not exclusively confined to national jurisdictions, even though ultimately the national jurisdictions will have a role to play. On the contrary, it has been contended throughout this study that regional EIA coordination is a necessary companion in the enterprise of solving the problems. From the study, five reasons may be discerned as justifying EIA coordination in the region:

- The countries of the region have common environmental trends and their environments are to some extent interdependent. Having a coordinated EIA system is therefore likely to facilitate the implementation of national development activities with less prejudice to the environmental interests of other states.

- Coordination is likely to influence states to refine their existing EIA systems or to put in place EIA legislation.
- Coordination is likely to obviate the possibility of one state gaining unfair economic advantage over another through permitting the implementation of projects that would be rejected by the other state on environmental grounds.
- Coordination has the potential for the creation of a regional EIA data bank which can provide practitioners with invaluable lessons from the teachings of experience and in the process reduce the time and resources devoted to future EIAs.
- Coordination may also increase EIA training opportunities through the establishment of a regional EIA training centre.

In this connection, SADC, as a regional economic integration organisation in Southern Africa, is supremely positioned to take up the challenge of coordinating the EIAs. Among the available mechanisms for executing this task is the adoption of an EIA protocol to the SADC Treaty. Concluding such a protocol is sanctioned by the treaty itself as being part of the area of cooperation of ‘natural resources and environment’. The E C Directive on EIA and the Espoo Convention will provide useful precedents in the drafting of the protocol.

In the final analysis, the future generations of the Southern African region deserve to have natural resources and the general environment protected, not as a matter of favour or grace but as a matter of right. It is submitted that such protection will be best achieved if EIA is coordinated through an SADC protocol. It is not suggested that this course of action is a ‘cure-all’; rather, that it promises the most amongst the options available for comparison.

LIST OF STATUTES

Angola	Law Number 5/98 of 1998
Malawi	Environment Management Act 23 of 1996
Mauritius	Environment Protection Act 34 of 1991
Mozambique	Law Number 97 of 1997 Law Number 3/93 of 1993

Seychelles	Environment Protection Act 9 of 1994
South Africa	Environment Conservation Act 73 of 1989 Marine Living Resources Act 18 of 1998 Minerals Act 50 of 1991 National Environmental Management Act 107 of 1998 National Water Act 36 of 1998
Swaziland	Swaziland Environment Authority Act 15 of 1992
Zambia	Environmental Protection and Pollution Control Act 12 of 1990 Wildlife Act 12 of 1998

LIST OF POLICIES

Namibia	Environmental Assessment Policy of 1994 (Cabinet Resolution 16.8.94/002)
Zimbabwe	Environmental Impact Assessment Policy of 1994

BIBLIOGRAPHY

Books

Ahmad Y J and Sammy G K *Guidelines to Environmental Impact Assessment in Developing Countries* London: Hodder and Stoughton 1985

Arntzen J W and Veenendaal E M *A Profile of Environment and Development in Botswana* Gaborone: University of Botswana 1986

Ball S and Bell S *Environmental Law: the Law and Policy Relating to the Protection of the Environment* 2ed London: Blackstone Press 1992

Barrett B F D and Therivel R *Environmental Policy and Impact Assessment in Japan* New York: Routledge, Chapman, and Hall 1991

Biswas A K and Geping Q (eds) *Environmental Impact Assessment for Developing Countries* London: Tycooly Publishing 1987

Canter L W *Environmental Impact Assessment* 2ed New York: McGraw-Hill 1996

Covello V T, Mumpower J L, Stallen P J M and Uppuluri V R R (eds) *Environmental Impact Assessment, Technology Assessment and Risk Analysis* Berlin Heidelberg: Springer-Verlag 1985

Deketelaere K (ed) *International Encyclopaedia of Laws: Environmental Law* Vol 5 The Hague: Kluwer Law International 2000

Dixon J A, Scura L F, Carpenter R A and Sherman P B *Economic Analysis of Environmental Impacts* London: Earthscan 1994

Ebbesson J *Compatibility of International and National Environmental Law* London: Kluwer Law International 1996

Erickson P A *Environmental Impact Assessment: Principles and Applications* New York: Academic Press 1974

Ferraz B and Munslow B (eds) *Sustainable Development in Mozambique* Oxford and Trenton: James Currey, MICOA, and Africa World Press 1999

Findley R W and Farber D A *Cases and Materials on Environmental Law* 3ed St Paul: West Publishing Co 1991

Fisher D E *Environmental Law: Text and Materials* North Ryde: Law Book Company 1993

Franklin B L S and Kaplan M *The Mining and Mineral Laws of South Africa* Durban: Butterworths 1982

Fuggle R F and Rabie M A (eds) *Environmental Concerns in South Africa* Cape Town: Juta 1983

Fuggle R F and Rabie M A (eds) *Environmental Management in South Africa* Cape Town: Juta 1992

Gilpin A *Environmental Impact Assessment: Cutting Edge for the Twenty-first Century* Cambridge: Cambridge University Press 1995

Glasson J, Therivel R and Chadwick A *Introduction to Environmental Impact Assessment* 2ed London: U C L Press 1999

Glazewski J *Environmental Law in South Africa* Durban: Butterworths 2000

Griffiths J F (ed) *Climates of Africa* Amsterdam: Elsevier 1972

Henderson P G W *Environmental Laws of South Africa* Vol 1 Cape Town: Juta 1996

Hilty S L (compiler) *Draft Environmental Profile of the Kingdom of Lesotho* Tucson: University of Arizona 1982

Huntley B J (ed) *Biotic Diversity in Southern Africa: Concepts and Conservation* Cape Town: Oxford University Press 1989

Hurrell A and Kingsbury B (eds) *The International Politics of the Environment* New York: Oxford University Press 1992

Hyman E L and Stiffler B *Combining Facts and Values in Environmental Impact Assessment: Theories and Techniques* Boulder: Westview Press 1988

James D *The Application of Economic Techniques in Environmental Impact Assessment* Dordrecht: Kluwer Academic Publishers 1994

Kidd M *Environmental Law: A South African Guide* Kenwyn: Juta 1997

Kiss A and Shelton D *Manual of European Environmental Law* Cambridge: Grotius Publications and Cambridge University Press 1993

Koeman N S J (ed) *Environmental Law in Europe* The Hague: Kluwer Law International 1999

Kramer L *E C Treaty and Environmental Law* 3ed London: Sweet & Maxwell 1998

Kramer L *Focus on European Environmental Law* London: Sweet & Maxwell 1992

Lomas O (ed) *Frontiers of Environmental Law* London: Chancery Law 1991

Moyo S, O'Keefe P and Sill M *The Southern African Environment: Profiles of the SADC Countries* London: Earthscan 1993

Munn R E *Environmental Impact Assessment: Principles and Procedures* New York: John Wiley 1979

Munyaradzi C and Johnson P (eds) *State of the Environment in Southern Africa* Southern African Research and Documentation Centre IUCN SADC 1994

Olivier W and Olivier S *Exploring the Natural Wonders of South Africa* Cape Town: Struik Publishers 1996

Sadler B *International Study of the Effectiveness of Environmental Assessments. Environmental Assessment in a Changing World: Evaluating Practice to Improve Performance* Canadian Environmental Assessment Agency and the International Association of Impact Assessors 1996

Sand P H (ed) *The Effectiveness of International Environmental Agreement: A Survey of Existing Legal Instruments* Cambridge: Grotius 1992

Sands P *Principles of International Environmental Law I: Frameworks, Standards and Implementation* Manchester and New York: Manchester University Press 1995

Sands P, Tarasofsky R G and Weiss M (eds) *Documents in International Environmental Law* Vol II B Manchester: Manchester University Press 1994

Schmitz G (ed) *Lesotho Environment and Management* Vol 1 Roma: National University of Lesotho 1984

Scott J E C *Environmental Law* London and New York: Longman 1998

Sheate W *Making An Impact: A Guide to EIA Law and Policy* London: Cameron May 1994

Sheate W *Environmental Impact Assessment: Law and Policy. Making An Impact II* London: Cameron May 1996

Schulze B R *Climate of South Africa Part 8 General Survey WB 28* Pretoria: Weather Bureau Department of Environment Affairs 1965

Speece M W (compiler) *Draft Environmental Profile of Zambia* Tucson: University of Arizona 1982

Swanson T and Johnston S *Global Environmental Problems and International Environmental Agreements: The Economics of International Institution Building* Cheltenham: Edward Elgar 1999

Tilleman W A (ed) *The Dictionary of Environmental Law and Science* Toronto: Emond Montgomery 1994

Thompson W R *Moisture and Farming in South Africa* Pretoria: Central News Agency 1936

Tyson P D, Kruger F J and Louw C W *Atmospheric Pollution and its Implications in the Eastern Transvaal Highveld* Pretoria: Council for Scientific and Industrial Research 1988

Van Heerden J and Hurry L *Southern Africa's Weather Patterns: an Introductory Guide* 2ed Pretoria: Acacia Books (undated)

Varady R G (compiler) *Draft Environmental Profile of Malawi* Tucson: University of Arizona 1982

Wiesner D *EIA The Environmental Impact Assessment Process: What it is and how to do one* Dorset: Prism Press 1995

Winter G (ed) *European Environmental Laws: a Comparative Perspective* Aldershot, Hants: Dartmouth 1996

Witzsch G and Ambrose D *Lesotho Environment and Environmental Law* Roma: National University of Lesotho 1992

Wood A (ed) *Strategies for Sustainability: Africa* London: Earthscan and IUCN 1997

Journal Articles

Couzens E 'NEMA - A Step Closer To Coherence?' (1999) 6 *SAJELP* 13

Kidd M 'The National Environmental Management Act and Public Participation' (1999) 6 *SAJELP* 61

Lawrence R 'How Manageable is South Africa's New Framework of Environmental Management' (1999) 6 *SAJELP* 61

Maluwa T 'Towards an Internationalisation of the Zambezi River Regime: the Role of International Law in the Common Management of an International Watercourse' (1992) 25 *CILSA* 20

Peckham B 'Environmental Impact Assessments in South African Law' (1997) 4 *SAJELP* 387

Ridl J '“IEM”: Lip Service and Licence' (1994) *SAJELP* 61

Thomas R H 'Introductory Note' 32 *ILM* 116 (1993)

Winstanley T 'Environmental Law Update' *De Rebus* (June 2000) 51

Winstanley T 'Environmental Impact Assessments: One Year Later' (1998) 5 *SAJELP* 387

Government Documents

Department of Water Affairs (South Africa) *Management of the Water Resources of the Republic of South Africa* Pretoria: Department of Water Affairs 1986

Library of Congress *Draft Environmental Profile of Swaziland* Washington: Science and Technology Division Library of Congress 1980

Soil Classification Working Group *Soil Classification: a Taxonomic System for South Africa* 2ed (revised) Pretoria: Department of Agricultural Development 1991

Other Documents

UNEP/UNDP *Compendium of Environmental Laws of African Countries* Volume I: Framework Laws and EIA Regulations Nairobi: UNEP/UNDP Joint Project on Environmental Law and Institutions in Africa 1996

UNEP/UNDP *Compendium of Environmental Laws of African Countries* Volume I: Framework Laws and EIA Regulations (1997 Supplement to Volume I 1996 edition) Nairobi: UNEP/UNDP/DUTCH Joint Project on Environmental Law and Institutions in Africa 1997

UNEP/UNDP *Compendium of Environmental Laws of African Countries* Volume I: Framework Laws and EIA Regulations (1998 Supplement to Volume I 1996 edition) Nairobi: UNEP/UNDP/DUTCH Joint Project on Environmental Law and Institutions in Africa 1998

World Bank *The World Bank and the Environment: Fiscal 1992* Washington: World Bank 1992

Websites

<http://carpe.umd.edu>

<http://education.yahoo.com>

<http://ens-news.com/ens/jan2001/2001L-01-17-02.html>

http://europa.eu.int/eur-lex/en/lif/dat/1985/en_385L0337.html

<http://lcweb2.loc.gov/>

<http://ncb.intnet.mu>

<http://www.absa.co.za>

<http://www.angola.org>

<http://www.art.man.ac.uk/eia>

<http://www.asosh.org/SADC/sadc.htm>

<http://www.gdrc.org/uem/eia/lecture-notes.html>

<http://www.gov.bw>

http://www.newafrica.com/environment/tz_eia

<http://www.odci.gov/>

<http://www.sadc.int/>

<http://www.saep.org>

<http://www.sdn.org.mw/enviro/eia>

<http://www.seychelles.net/>

<http://www.seychelles-online.com.sc/>

<http://www.woza.co.za/eco/news/apr01/war18.htm>

<http://www.wrm.org.uy/bulletin>

http://zamlii.zamnet.zm/comment/zlj/legsums/p98_12.htm