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Environmental Planning in Sub-Saharan Africa: Environmental Impact Assessment at the Crossroads

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ABSTRACT

This paper argues that sub-Saharan African countries are at a crossroads in terms of fully adapting and benefiting from the Environmental Impact Assessment (EIA) process. It identifies a variety of issues that have hindered full utilization of the EIA process. These include limited public participation; lack of national expertise and experience in EIA; unreliable and inadequate data; limited impact coverage; defective environmental legislation; and weak enforcement. The paper concludes by highlighting various measures required to address these constraints and to reinforce the EIA process more generally. Key measures include expanding “ownership” of EIA; ensuring compliance with international agreements; improving funding of EIA studies for government funded-projects; encouraging public sensitization to demystify the EIA process; reducing corruption; and enhancing good governance. Greater efforts and more resources are required to further integrate EIA at all levels of the development planning process, so that full benefits can be realized.

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FOREWORD

After the Earth Summit in Brazil in 1992, the use of Environmental Impact Assessment (EIA) has spread throughout sub-Saharan Africa. EIA is an enormously important tool for promoting sustainable development, but the effectiveness of the EIA process has varied from country to county. Indeed, overall performance has been below expectations. Many Africa governments are not fully committed to the process, and experience shows that mainly lip service is often paid to conducting effective EIAs.

Much has been written in recent years on EIA methodologies, including many technical reports and reviews. This working paper by John Kakonge contributes importantly to the ongoing debate by highlighting the lessons learned from various case studies in sub-Saharan Africa. Specific requirements to enhance and strengthen the EIA process are identified, including legislation, public awareness, capacity building and partnership.

The future of EIA in sub-Saharan Africa very much depends on African governments themselves, their ability to ensure ownership of the EIA process, and their genuine commitment to make the process succeed for the long term betterment of the environment in Africa and the people who depend on it.

John Kakonge is well qualified to have carried out this useful research, which he did as a visiting scholar while on sabbatical from the United Nations Development Programme. John, a native of Kenya, has had a long and distinguished career with UNDP. He has served as a UNDP Resident Representative and UN Resident Coordinator in Lesotho, Liberia, and, most recently, The Gambia. Throughout his career, he has maintained a strong interest in environmental impact assessment and sustainable development issues, having authored numerous articles and publications on environmental issues and planning in sub-Saharan Africa.

J. Gustave Speth, Dean
Yale School of Forestry & Environmental Studies

INTRODUCTION

Over the past few years, the international community and global public attention have focused on several major development and humanitarian challenges confronting the African continent. These include poverty, the HIV/AIDS pandemic, debt relief, and various natural and man-made disasters. The continent's environmental challenges are often cited, but because of the multi-faceted nature of African environmental crises – crossing multiple sectors – attention to environmental issues has received lukewarm acceptance or response by African governments and the donor community.

This paper examines how African governments have used Environmental Impact Assessment (EIA) in project preparation and environmental planning. The extent to which African governments are capable of deploying EIA tools, and the current constraints being faced, provide a good indication of how African governments are incorporating environmental issues into the development process.

For more than a decade, various international conferences and ministerial meetings have highlighted the importance of EIA methodologies as key components of a more systematic and objective approach to environmental issues. Examining how EIA techniques are, or are not, being used as the case may be, provides a useful insight into the current state of environmental concern and attention by African governments and their development partners.

Background

Since the early 1990s, the use of EIA methodologies has spread throughout sub-Saharan Africa. Coverage has extended to all countries within the region as well as to trans-boundary projects. The United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil, in June 1992 (“The Earth Summit”) initiated this expansion by including specific reference to EIA methodologies in the conference document now known as “Agenda 21.” This document envisaged the mandatory assessment of all major developments that might have adverse effects on the environment. Subsequently, most member states of the UN, including those from sub-Saharan Africa, have incorporated EIA requirements into their legal systems. Examples include: Nigeria's EIA Law of 1992; Ghana's Environmental Protection Agency Act of 1994; Namibia's EIA legislation of 1994; and Seychelles' of 1994.

In 1995, the African Ministerial Meeting on Environment, held in Durban, South Africa, identified adoption of EIA for priority attention. They emphasized that action should include:

1. Promoting the use of EIA as a continuous planning tool; strengthening institutional and legal frameworks to enforce the use of EIA; and fully integrating EIA, including biophysical and socio-economic aspects, into all stages of project formulation, implementation, monitoring, and evaluation;
2. Sensitizing policy and decision-makers to the needs and benefits of EIA;
3. Establishing an EIA database, a geographic information system, information exchange, and a network of experts;
4. Promoting cooperation, including the exchange of experiences and the development of guidelines;
5. Promoting cooperation between developed and developing countries; capacity building, based primarily on the use of African expertise and institutions;
6. Developing curricula that incorporate environmental education and EIA for all levels of education and training;
7. Encouraging governmental and non-governmental organizations (NGOs) active in environmental management to participate in all related capacity-building activities, as well as in regional training programs; and
8. Enhancing public awareness and popular participation, particularly of NGOs, women, youth, and community-level organizations, in the development and use of EIA (Goodland *et al.* 1995).

Following the Durban Ministerial Meeting of 1995, member states of the Southern African Development Cooperation (SADC) became the first sub-region in sub-Saharan Africa to approve the "Protocol on Environment" that, among other things, emphasizes the use of EIA methodologies.

Despite all these developments, countries have been slow to incorporate EIA tools as a regular planning and monitoring procedure. One focus of this paper will be to look at the factors, such as lack of capacity and lack of finance, that are often blamed for this tardiness.

Since it would be difficult for any country to abandon the EIA process at this stage, how then can it be made effective and more useful in the sub-Saharan region? Specifically, how can the recommendations of the Ministerial Meeting in Durban be revisited and reinvigorated?

A desk review of literature available at the School of Forestry and Environmental Studies at Yale University and case studies assembled from South, East, and West Africa and other sources form the basis of this paper (see reference section). Most are based

on work done by a mix of foreign and African experts funded by bilateral donors, financial development institutions, the UN system, and others.

REASONS TO CONDUCT ENVIRONMENTAL IMPACT ASSESSMENTS

In general, there is theoretical agreement that EIA methodologies are important and are gradually becoming an integral part of environmental planning and major development projects in the sub-Saharan region. The reasons for this include:

1. Improved Environmental Management

Conducting an EIA ensures that environmental concerns are considered in development projects and helps build up environmental databases, which most African governments do not have. An EIA is frequently the best way to address this problem and to produce definitive information about the environmental impact of major development projects.

2. Good Governance

Conducting EIAs helps promote good governance (Kakonge 1998). In many instances, it is the poor and underprivileged who are affected by development projects. Commonly, these vulnerable people have their environment, their health, and their livelihoods adversely affected by projects in which they have no say. Such situations indicate a lack of good governance and an absence of public participation; projects not owned by the communities and people they affect often fail. Conducting EIAs is one way of getting people involved in development projects, with significant side effects and so help improve good governance, accountability, and transparency.

Civil society organizations (CSOs) and NGOs in Africa are becoming stronger and more involved with environmental issues. They are increasing the pressure on governments to conduct EIAs as part of the development process. This is just as well, because usually it is CSOs and NGOs that are at the forefront of efforts to care for the environmental and social problems brought about by development.

3. Economics

There are many economic reasons for conducting EIAs. They avoid wanton waste and improve the effectiveness of resource utilization. There is no doubt that adverse environmental effects reduce the economic benefits of projects. For example, a dam project might flood an area that includes a tourist destination, thus adversely affecting tourism. Agricultural developments often result in reduced biodiversity and the drying of wetlands, and hence reduced overall environmental quality. It thus makes sense to conduct an EIA to ensure the prevention or mitigation of possible detrimental effects.

4. Donor Requirements

Donor agencies and development organizations are more often requiring EIAs as a condition for providing funds and support for projects. Their rules and/or national policy and regulations often demand them. Donor agencies are under pressure to satisfy their constituencies, which include ordinary citizens, civil society organizations, and advocacy groups. Many of these constituencies now insist that support be given only to projects that are environmentally sound. Often, the first step in this direction is for them to require that major projects be subject to EIAs.

5. Sustainable Development

EIAs are valuable because they help ensure that developments are sustainable, which they must be if they are to have any meaning. Most of Africa's natural resources are susceptible to degradation and need protection from reckless development. For example, dense tropical forests suggest fertile soils, but this is erroneous because most of the nutrients are incorporated within the forest vegetation itself. Given the fragile but inherently rich environment of many sub-Saharan countries, it is imperative that development projects are environmentally sustainable. Conducting an EIA is one way of securing this aim.

EIA PRACTICE IN SUB-SAHARAN AFRICA

A quick review of practices across the continent shows wide variation in how EIAs are considered or used.

EIA practice contrasts significantly from country to country and in some cases, as in **Seychelles**, is notably complex (King and Walmsley 2003).

In **Botswana**, several government departments, private companies, and parastatal organizations undertake EIAs, even in the absence of EIA legislation. However, the results of these EIAs are not easily available (Mpotokwane and Keatimilwe 2003).

For more than a decade in **Angola**, despite the civil war, all major projects relating to roads, bridges and oil exploration have been subject to EIA, although the information from these EIAs is not accessible (Russo *et al.* 2003).

In **Namibia**, the EIAs done so far have concerned the mining and infrastructure sectors (Tarr and Tarr 2003). Moreover, since 1998 Namibia has modified the process by introducing fast track EIA. This was done specifically to allow disadvantaged people to gain access to the mining sector, which otherwise continues to be dominated by multi-national companies. Despite early limitations, fast track EIAs seem to have potential in Namibia.

In **Malawi**, although the process was legislated for in 1996, implementation of EIAs has taken up to two or three years. According to Spong and Walmsley (2003), 35 EIAs, mostly on infrastructure, mining and water resource projects, were carried out between 1998 and 2001.

The **Republic of South Africa** in apartheid days had something called Integrated Environmental Management (IEM). This was a forerunner of EIA, to which the country gave a proper legal framework in 1997. Since 1997, many EIAs have been carried out throughout the country by the private sector and the government.

Hatton *et al.* (2003) note that in **Mozambique**, EIA practice includes not only the developer or donor and the EIA team, but also national and foreign companies and local universities.

In **Nigeria**, EIA became mandatory in 1992 for specific development projects in both the public and private sectors. The Nigeria Federal Environmental Protection Agency (FEPA) divides projects into three categories: (1) mandatory EIA, when significant negative environmental impacts are expected; (2) activities where a full EIA is not mandatory; and (3) activities that have beneficial impacts on the environment (Echefu and Akpofore 1999).

In **Uganda**, EIA has achieved a certain degree of success because developers and the public have come to appreciate its value (Wabunoha *et al.* 2005).

Lesotho has limited experience with EIAs, the process having been used for the Lesotho Highlands Water Project (Motsamai *et al.* 2003).

Tanzania enacted EIA legislation in 1995 and has subjected a number of projects to EIA. These range from industrial development and fish farming, to urban development. Mwalyosi and Hughes (1998) argue that progress towards EIA development in Tanzania has been slow because of limited human capacity.

In **Mali**, the mining sector has developed EIA procedures, and some foreign companies operating in the country are committed to good environmental management (Boocock 2002).

Collectively, these studies endorse the view that EIA practice in many sub-Saharan countries is still weak and wanting. Much work needs to be done at the national level to address not only development of EIA, but also overall environmental management.

EIA LEGISLATION

Many argue that the key to strengthening the EIA process is getting the legal framework put in place. This has been true in many parts of the world and sub-Saharan Africa is no exception. Without a legal requirement, many developers would omit EIAs. Mpotokwane and Keatimilwe (2003) write that in Botswana “in the absence of legislation, EIA practitioners do not necessarily follow the most appropriate or publicly accepted process, and the quality of EIAs varies widely.” Mwalyosi and Hughes (1998) indicated that environmental awareness in Tanzania was low and lack of EIA legislation made the process weak. This was also the case in the Republic of South Africa (Rossouw *et al.* 2003) and Malawi (Spong and Walmsley 2003).

Most major donors, financial development institutions, and UN agencies have now embraced the EIA concept. Many consider an effective EIA process a key component in promoting sustainable development and reversing serious environmental trends. Suitable legislation remains the favoured way to enforce its use.

Without EIA legislation, public participation by NGOs and CBOs in major development projects would be more difficult. As Wabunoha *et al.* (2005) point out, public participation enhances a sense of ownership and strengthens the importance and the need for EIAs in the development process.

Yet, even where EIA legislation is in place, it sometimes fails to ensure consultation, as in Nigeria (Amnesty International 2004). There, a lack of adequate consultation on oil-related projects and installations has led to abuses and violations of some communal rights. However, Info News (2005) reported that the Nigerian government had become more active in enforcing environmental laws and regulations and that, in turn, the oil companies were taking their environmental performance more seriously. Nevertheless, Info News also reported that the enforcement was merely window dressing to please international donor agencies, rather than evidence of a national willingness to care for the environment.

IMPLEMENTATION CHALLENGES: LEARNING FROM CASE STUDIES

Over the past few years, a number of studies have been undertaken of EIAs that were completed in countries across the continent. The studies have presented a range of issues and problems related to the design, implementation, and follow-up associated with the EIA process. In particular, nine projects have been analyzed and are commonly cited in this paper (see Table 1 below). Of these nine, three summary assessments are presented below in greater detail that, in the author’s view, suggest the kinds of inherent issues that confront the wider use of EIA in sub-Saharan Africa.

Table 1 Nine Case Studies by Project and Sector

Project	Sector
• ESKOM Wind-turbine Demonstration Facility (South Africa)	Energy
• Aluminium Smelter Project (Mozambique)	Industry
• Epupa Dam (Angola/Namibia)	Energy (water resources)
• Trans-Kgalagadi Road Project (Botswana)	Public Works
• Kasinthula Commercial Fish-Farming (Malawi)	Agriculture (fishing)
• Banyan Tree Beach Resort (Seychelles)	Tourism
• Okanjande Graphite Project (Namibia)	Mining
• Utapate Pilot Project (Nigeria)	Energy (oil and gas exploitation)
• Lesotho Highlands Water Project (Lesotho)	Public Works (water resources)

Summary Assessment 1: ESKOM Wind-Turbine Demonstration Facility (South Africa)

The South African Electricity Supply Commission (ESKOM) proposed the construction of six to ten large wind turbines at Klipheuwel Windfarm in the Western Cape Province for research and demonstration purposes. Based on the regulations of the South African Department of Environmental Affairs and Tourism (DEAT), ESKOM developed an EIA for the project that focussed on possible impacts relating to aesthetics, noise, birds, cultural issues, and interference with telecommunication. The findings and recommendations of the EIA resulted in visual and noise mitigation and helped determine the number of turbines that the site could hold (Rossouw *et al.* 2003).

According to Roussow *et al.* (2003), substantial efforts were made to distribute project information and explain the EIA process to the public. An independent consultant organised public participation. Onsite advertising and press briefings were organised and an information website set up. The EIA was publicly available on the website and a summary was provided directly to all known interested and affected parties (Rossouw *et al.* 2003).

Despite the extensive public participation and generally eco-friendly nature of this alternative energy project, DEAT, although it gave initial approval in 2002, did not finally decide on the EIA for several years. The local community in early 2003 appealed the approval on the grounds that possible impacts on migratory birds had not received attention and no analysis of alternative sites was made (Cape Town 2003). The EIA was re-approved by DEAT in February

2005 and a final appeal against the project was rejected in September 2005 (Cape Business News 2005).

The use of an independent consultant probably reduced the degree and frequency of the accusations of conflict of interest often inherent in the EIA process. However, it is doubtful that the approach to public participation embraced all affected parties adequately. In particular, reliance on the Internet to distribute project information is an example of a high-tech approach that is obviously inappropriate for poor, rural communities.

Summary Assessment 2: Epupa Dam Project (Angola/Namibia)

Namibia's public power utility (NamPower) proposed a hydroelectric scheme in the Epupa area on the boundary between Namibia and Angola to help both countries achieve self-sufficiency in energy (Corbett 1999). The two governments commissioned a consortium of international experts to study the scheme, including technical and environmental factors (Tarr 2003). NamPower originally proposed to site the dam near the Epupa Falls in Namibia. However, initial investigations showed that the reservoir would flood the ancestral home and pastureland of the nomadic Himba tribe and destroy the dramatic Epupa Falls (Bensman 1998; Corbett 1999). This led the consortium to recommend that final assessments should focus only on a downstream possibility known as the Baynes site (Corbett 1999). The Namibian government, however, insisted that the Epupa site also be considered in full, because previous economic feasibility studies (Tarr 2003) had indicated that other sites were a "waste of time."

The Feasibility Report, issued in December 1998, concluded that the Epupa site was the most economically feasible, while acknowledging a lack of quantifiable measurements of the social and environmental costs (Bensman 1998; Corbett 1999). The Baynes site would inundate a smaller area, lessen the impacts on the Himba's cultural landscape and avoid any impact on Epupa Falls (Corbett 1999). The Namibian and Angolan governments agreed that the social and environmental impacts had been inadequately assessed (Tarr 2003). In addition, the EIA lacked an environmental management plan and proper guidance on bilateral issues (Tarr 2003).

An acrimonious relationship between the Namibian government and the Himba tribe further constrained the EIA process (Tarr 2003). As Corbett (1999) and Bensman (1998) observed, the Namibian government portrayed the Himba as a primitive and underdeveloped community that needed assistance. In reality, the Himba are among the most successful and economically independent subsistence farmers in Africa (Corbett 1999). The Namibian government further tried to portray opposition to the dam as the views of a minority of the Himba, manipulated by foreign environmental activists (Corbett 1999). This lack of respect for the Himba led them to halt all participation in social impact studies, preventing completion of a critical part of the feasibility study (Menges

1998). As Corbett (1999) points out, “[the Himba] see no prospect of tangible benefit from the dam, but only the loss . . .”

Throughout this process, Angola repeatedly pushed for the Baynes site, which was within their borders. Angola did express some concern for the Himba, but the hope that building at Baynes might lead to the repair of the war-damaged Gove Dam possibly coloured the government’s opinion (Bensman 1998; Corbett 1999). This agenda may have prevented Angola from playing an active role in convincing the Himba to support the Epupa site.

Interest in the dam site question quietened down after the release of the Feasibility Report. Interest concentrated on a gas-fired power station in southern Namibia and a renewed rebellion in Angola. Now developing a smaller-scale hydroelectricity scheme on the lower Kunene River has revived consideration of the larger project. This time, both countries are recommending development of the Baynes site (Dentlinger 2005). Given the interest in environmental issues ignited by the Epupa battles, both governments should be prepared to embrace the EIA process fully.

In particular, the governments of Angola and Namibia must decide whether to undertake the challenges of a cross-border EIA. While such an exercise can serve as a tool to coordinate development in areas affecting both nations, there must be high-level cooperation and support for the process, and a greater commitment to the EIA’s objectives, specifically the need to provide for public participation. It is possible that the EIA capacity in the two countries is not up to the task of coordinating such a complex undertaking.

Summary Assessment 3: Utapate Oil and Gas Redevelopment Project (Nigeria)

Widespread corruption and poor governance in Nigeria since its independence in 1960 has meant that it remains underdeveloped, despite its vast oil resources. In 1999, a civilian government came to power amidst popular protests relating to the environmental damage caused by oil production and the failure of local populations to gain commensurate economic benefits. The Shell Petroleum Development Corporation (SPDC) has a vested interest in satisfying the local people and addressing the environmental effects of oil extraction.

Due to a lack of capacity at the local level, the SPDC provides much of the driving force for development of the EIA process. It uses EIA to (1) mitigate negative environmental and social impacts; (2) enhance positive impacts; and (3) document the results to satisfy government regulatory requirements. In 1999, the SPDC proposed the concept of partnering in the EIA process to support legitimising its informal social license to operate in Nigeria, and to “fast-track” environmental clearance. The SPDC decided to use the Utapate region oil and gas field rehabilitation scheme as a pilot-project to test the possibility of

tri-sector (industry, government, and community) participation in the EIA process (Sullivan and Warner 2004).

The process of building a partnership began with a series of meetings held from September 2001 to April 2002. The first meeting included the principal chiefs of the affected communities and representatives of women's groups, federal and local government, local NGOs and SPDC. The meeting established outline partnering agreements for implementation of the EIA process and scheduled another meeting for the following month. This second meeting was disrupted by "youth," who complained that they had not been formally invited, that members of the working group did not represent the community as a whole, that previous impacts of oil production had not been taken seriously by the SPDC, and that SPDC had failed to complete previously initiated community projects. This disruption set the process back six months until another attempt was made by SPDC to engage the affected communities in April 2002. This was largely unproductive, as most participants concentrated on the anticipated benefits, such as the potential for employment and scholarships, or the problems with past developments, rather than the social and physical effects of the proposed project (Sullivan and Warner 2004).

In light of these failures, SPDC opted to delay developing formal partnership arrangements until a later stage of the EIA process (Sullivan and Warner 2004). Given the level of distrust between the oil industry and affected communities in Nigeria, it is unlikely that a formal partnership agreement can be implemented. Nevertheless, local communities should not be excluded from the EIA process, because it provides opportunities to rebuild trust and social capital. Unfortunately, Nigeria's EIA legislation does not currently require this kind of partnership and, thus, companies can pursue cooperation at their leisure.

LESSONS FROM SUMMARY ASSESSMENTS

These three case studies – the South African wind-turbine project, the Angola/Namibia dam project, and the Shell project in Nigeria – highlight some important points about the utilization of EIA methodologies for sub-Saharan Africa, some of which are discussed in more detail in the next section:

1. A lack of local skilled manpower hampers the ability of sub-Saharan African countries to conduct effective EIA studies. In most of the case studies described above, international consultants conducted the EIA process.
2. Trans-boundary EIAs are complex and proportionally expensive to complete, especially for sub-Saharan countries with limited EIA capacity. As such, these types of analyses should be carefully considered. Where implementation is considered appropriate and feasible, the countries involved must cooperate fully to ensure that all issues are thoroughly analysed and reconciled during the EIA process.

3. In all three cases, considerable effort was expended on public participation in the EIA process. However, the effectiveness of this effort was decidedly mixed. Where there was a history of strong animosity towards a project or towards a project proponent, as in the Epupa and Utapate projects, public participation was usually ineffective and often counter-productive, with project proponents becoming increasingly frustrated with continued community resistance, thus further exacerbating the problems.
4. The most common problem illustrated by the case studies is a lack of commitment to the EIA process by the respective governments. In particular, several members of the government of Namibia repeatedly expressed opposition to the proposed Epupa Dam instead of engaging the communities through the public participation process. Similarly, both governments dragged out the EIA process rather than working actively to resolve contentious issues. In the Utapate case, the Nigerian government could have interceded to facilitate public participation but failed to do so.
5. In many cases, there was a lack of a strong partnership between stakeholders. For example, the Angola government was lukewarm towards the Epupa Dam site favoured by Namibia. Similarly, SPDC suspension of community partnership efforts in Nigeria reflects the absence of such requirements in the country's EIA legislation and the subsequent lack of incentive for SPDC to pursue it further.
6. The use of the Internet and other computer-based resources for implementing the public participation process may not be appropriate, especially in rural areas where the communities cannot read or write (i.e., the ESKOM project). In addition, reliance on foreign engineers and environmental professionals can result in ineffective communication with local communities.

EMERGING ISSUES

Various issues arise from these case studies and other related sources that have important implications for EIA development in sub-Saharan Africa and are considered below.

Government Commitment and Support

Sub-Saharan Africa governments have not taken implementation of EIA seriously, largely because of other demands and priorities. Many countries in East and Southern Africa are currently trying to deal with the AIDS pandemic that absorbs all available funds. Even before AIDS, in his speech to the UN General Assembly as chairman of the Non-Aligned Movement, President Robert Mugabe of Zimbabwe said:

“When you talk to the Third World about environment, you are talking to the Third World about poverty, and unless you are prepared to deal with poverty, there will not be an environment to preserve” (Burayidi 2000).

The environment and poverty are undoubtedly linked. According to the Millennium Project 2005, the pursuit of environmental sustainability is an essential part of the global effort to reduce poverty, because environmental degradation is inextricably and causally linked to problems of poverty, hunger, gender inequality and health. Ironically, despite all good intentions, and, as observed by the OECD in 1986, the environment is not going to be a priority area in many developing countries until other pressing needs for economic development are addressed. Moreover, as the OECD report noted, environmental damage in developing countries often primarily affects the poor and less influential sectors of the population, which may, at least in part, explain the lack of political will to tackle Third World countries’ growing environmental problems.

Today, some twenty years later, the OECD’s observation still holds true. The governments of sub-Saharan Africa must understand that they have primary responsibility for addressing environmental problems within their own territories and, unless they do so, current conditions will degenerate from bad to worse. Further international support to promote wider, general acceptance of the EIA process and its more effective implementation is required.

A workshop held in Marrakech, Morocco in June 2003, organized by the International Association for Impact Assessment (IAIA), emphasized the importance of strong political support for EIA. Specifically, the workshop recommended that public relations tools be developed for use by Members of Parliament and government officials from sub-Saharan African countries, such as popular booklets, pamphlets, short workshops, and radio/ TV programmes (Tarr 2003).

The recommendations of the Marrakesh Workshop are neither unique nor new. In short, they emphasise that government policy makers in sub-Saharan Africa have responsibility for protecting their national environments by ensuring that existing environmental laws and policies are enforced.

Financing EIAs

A major impediment to implementing EIA in sub-Saharan African countries is the lack of finance. In Lesotho, the government could not implement the Environmental Act, which parliament passed in 2001, because no financial provision existed in the budget (Motsamai *et al.* 2003). Nor could it establish the National Environmental Council, or its Board, or the Lesotho Environment Authority, or the Specialized Technical Working Group. In Seychelles, the government funds some of the EIA activities with support from bilateral donors (King and Walmsley 2003). Recently, the government and the private sector jointly established an Environmental Trust Fund, yet the funds raised have been insufficient to carry out all planned environmental and EIA activities. In Botswana, the preparation of EIAs is the responsibility of project proponents, but many have begun to complain about increasing costs (Mpotokwame and Keatimilwe 2003).

In Angola, the EIA for the Epupa Dam project took seven years to complete and was very expensive. The preparatory work cost almost US\$2.75 million, which was paid for by two donor governments, while the public awareness activities were funded by European newspapers and magazines, and NGOs such as the International Rivers Network (Rosso *et al.* 2003).

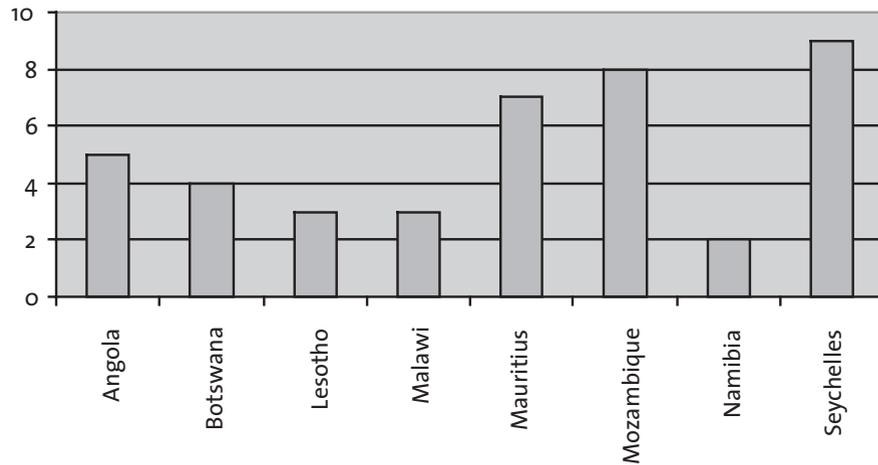
The mining sector presents a special case. It is often argued that foreign investors will be discouraged if made to meet the full cost of rehabilitation after exhaustion of mine deposits. According to Boocock (2002), if a government relaxes approval requirements because they want to attract foreign investment, they should ensure strict enforcement of environmental regulations. He goes on to say: “Mining legislation should not undermine environmental protection regulations, as would appear to be the case in Zambia.” Ministries with responsibility for the environment should have the right to verify that mining legislation conforms to national environmental regulations and standards.

Spong and Walmsley (2003) point out that in Malawi, developers who were reluctant to pay EIA fees for an approved project went ahead and completed the work without an EIA certificate. To avoid this, they recommend that EIA fees and related costs should be paid during the submission of EIA applications.

Regardless, the EIA studies cost money. Some are cheap and others expensive. Most of the literature focuses on the design stage when developers prepare the EIA studies before submission to a government for approval. Often and mistakenly, this is thought to be the end of the matter. The real, long-term costs of implementing EIA studies are rarely apparent at the outset and many African governments have difficulty in meeting them. This is one of the main reasons why the EIA process is so weakly applied and enforced in sub-Saharan Africa; monitoring and auditing activities are especially poor. African governments must devise ways and means of financing the EIA activities for which they are responsible. As a clear demonstration of ownership and commitment to the EIA process, governments should follow the example of South Africa, Namibia and Seychelles, and set aside funds specifically for EIA activities. Steps should also be taken to ensure that developers pay appropriate fees for processing and supervision of planning permits.

Human Resources

Human resource capacity is a key challenge to the development of EIA in sub-Saharan countries (see Figure 1). Mpotokwame and Keatimilwe (2003) indicate that Botswana needs to develop the capacity of the National Strategy Agency if it is to cope with the needs of envisioned EIA legislation. In South Africa, compared to the private sector, government salaries are insufficient to retain staff; those employed rarely have more than five years of work experience relating to the use of EIAs. Moreover, the existing staff have little time to monitor and enforce EIA recommendations since they spend 70 percent of their time on administration (Rossouw *et al.* 2003).

Figure 1 Professional EIA Staff for Selected Countries

Source: Tarr (2003). South Africa has about 155 professionals both at the national and provincial levels. Nigeria and Ghana are excluded due to unavailability of data.

Namibia and Malawi claim to have sufficient skilled staff, but this is questionable. In Malawi, a number of EIAs have been prepared, but cannot be enforced due to a lack of adequately trained or available staff.

Reviews of human resource capacity in other countries, including Botswana, Angola, Uganda and Nigeria, indicate that:

- Many consultants lack experience, particularly in doing environmental audits;
- In Angola, EIA expertise and experience are scarce. Specifically, the foreign companies used the few Angolan experts and students from the local university. There is no follow-up to the few EIAs done because of lack of both professional capacity and funding (Russo *et al.* 2003);
- In Uganda, capacity is limited at all levels, especially districts and sectors. According to Wabunoha *et al.* (2005), EIA is still unfolding in Uganda and it is too academic and theoretical for most people to understand;
- Most of the EIAs prepared have been weak and some have been subject to considerable criticism, such as Epupa (Angola/Namibia) and the Niger Delta region in Nigeria, which is indicative of limited capacity to manage the process at the local level.

Public Participation

A common weakness in many EIAs is the continued lack of public participation and involvement in the process. Several issues arose during review of the case studies, including the following:

- Although the public is legally required to be involved in the EIA process from the design stage, the local communities affected by the project are not always consulted (Spong and Walmsley 2003);
- Botswana public consultation was done with key stakeholders. In Uganda, a public hearing took place in July 1997 at Kampala International Conference Centre to solicit public views and comments on the various methods of containing the water hyacinth on Lake Victoria (Wabunoha, *et al.* 2005). These consultations were all successful and demonstrate that governments can be sensitive to public concern about environmental matters, provided the right policy and legal framework are in place;
- No public or NGOs were involved in the Seychelles Banyan Tree Beach Resort (King and Walmsley 2003). In the controversial Epupa Project (Angola/Namibia), Rosso *et al.* (2003) do not give any evidence of public participation;
- The Niger River Delta EIA suffered from a lack of public participation. However, when the Shell Petroleum Development Corporation (SPDC) realized that the affected communities had not been involved during the EIA of exploration and drilling in the Delta, they changed their strategy and set up the Utapate Development Pilot Project, with the intention of developing notions of trust, joint responsibility, and shared risk for the way forward;
- The projects listed in Table 2 below are normally considered by most countries and development agencies as falling under “Category 1” i.e. those with significant adverse environmental impact.* These kinds of activities are complex and the reports become too technical for most people to understand, especially when it comes to public participation. The public and even the government officials responsible for EIAs will therefore be at a disadvantage. It is essential that the process is carried out as transparently as possible.

* According to the World Bank and African Development Bank, for example, Category 1 includes infrastructure, industrial and extractive industries (mining, oil, gas) projects that *require* an EIA to be performed. Category 2 projects, such as telecommunications, rural water supply and sanitation, and land reclamation *may require* an EIA. Category 3 projects are those that *do not require* an EIA, such as health, nutrition and education projects.

Table 2 Project Impacts

	Visual	Noise	Rare & Endangered Species	Cultural Heritage	Physical Interruption of Environment	Water Related Issues	Land Use Conflicts	Health and Safety Risk	Socio-Economic Related Issues	Waste Related Issues	Sexually Transmitted Disease	Social Related Issues
ESKOM Wind-Turbine Demonstration Facility (South Africa)	✓	✓	✓	✓	✓							
Kasinthula Commercial Fish-Farming Project (Malawi)			✓			✓	✓	✓	✓			
Trans-Kgalagadi Road Project (Botswana)						✓	✓	✓	✓	✓		✓
Lesotho Highlands Water Project (Lesotho)			✓		✓	✓	✓	✓	✓	✓		
Aluminium Smelter Project (Mozambique)									✓	✓		
Banyan Tree Beach Resort (Seychelles)			✓		✓	✓			✓			
Epupa Dam (Angola/Namibia)			✓		✓				✓			✓
Utapate Pilot Project (Nigeria)					✓	✓	✓	✓	✓			

Sources: Information for this table has been extracted from the country reports and case studies reviewed. It is intended to demonstrate the difficulty of classifying environmental impacts by category and should therefore be treated with caution.

Data Inadequacy

Lack of data causes another problem for the EIA process. Having sufficient data is critical to the development of EIA in sub-Saharan Africa. To use the process fully requires that accurate and up-to-date data is readily available on all aspects of the project, which means more than just the immediate particulars. Demographic details, tax, health, mortality, import and export figures and other data may be required for the full picture.

To complete an EIA requires that information is obtained on the success or otherwise of mitigation strategies and whether the predicted impacts actually occurred. This means that post-project studies are an integral part of EIA. Regrettably, these tend to be glossed over and forgotten.

Having obtained data at some considerable expense, it is sensible to make as much use of the data as possible. That entails collecting and classifying the data and storing them in an accessible format that is, preferably, freely available to anyone, including researchers from other countries.

Data and its derived information obtained during the implementation of a project can be used to modify the Environmental Management Plan. Kalitsi (1999), supporting this issue, warns that environmental planning should not be static, but adjust to new conditions as they arise. This was the approach taken by the Volta Development Scheme.

Until recently, EIA studies in sub-Saharan countries were merely supporting documents in bids for project approval. As EIA is now developing, the Environmental Management Plan of any approved project should provide detailed information that allows for monitoring and audits against which performance can be judged.

Impact Coverage

Most projects under review had mixed multiple impacts (see Table 2). In some cases, the studies were repeated and the analysis of alternatives is a weakness both in the EIA reports and in the various processes (Hatton *et al.* 2003). In Malawi, Spong and Walmsley (2003) confirm that EIA reports lacked additional information and some reports were returned to proponents for this reason. Some reports were prepared by individual consultants instead of a multidisciplinary team. As indicated in Table 2, the potential impacts of most projects cover a broad range of technical and social issues, which require a multidisciplinary review for comprehensive assessment. Kloff and Van Spanje (2004) argue that no single EIA methodology can cover all the activities presented in Table 2. There is, for example, no standardized or commonly accepted methodology for an integrated EIA for the offshore oil and gas exploitation.

In short, if the scoping sessions are well organized like phase 1B of the Lesotho Highlands Water Project, the government officials, proponents, and communities should be in a position to agree on the most important impacts to be covered by EIA study. Mathews (1975) argues that even the scoping process cannot entirely determine the most important negative impacts without being governed by some subjectivity. In other words, what may be important for some people may end up being less important for others.

OPPORTUNITIES FOR THE DEVELOPMENT OF ENVIRONMENTAL IMPACT ASSESSMENT IN SUB-SAHARAN AFRICA

A review of the case studies and the available literature suggest that the following areas have the potential to strengthen or enhance EIA development in sub-Saharan Africa:

- **Publicizing and Implementing Existing EIA Legislation**

EIA legislation should command a much more central role in many sub-Saharan countries. The government, other stakeholders, and the donor community should popularise the use of EIA at all levels. It has happened, as in Malawi (Spong and Walmsley 2003), that developers learned of the need to undertake EIAs only after they had completed detailed feasibility and design studies. Wabunoha and Bugaari (2005)

argue that the EIA process in Uganda is not easy to understand, even for educated people.

Although the EIA legal framework has generally facilitated progress, in some countries it has weaknesses that hinder progress (see Table 3). Bekhechi and Mercier (2002) identified many laws, regulations, and statutes that provide lists of activities to be subjected to EIAs that are too ambitious in comparison with lists from other parts of the world.

Moreover, much of sub-Saharan Africa has adopted EIA requirements laid out by other countries (especially in the three-tier categorisation of projects by their likely impacts). While it may not be bad to draw on the experiences of other countries, caution is necessary, especially in circumstances prevailing in Africa today. Where there are weaknesses or an absence of environmental quality standards, countries should perhaps consider establishing their own environmental quality norms and standards to support EIA implementation, as recommended by Bekhechi and Mercier (2002).

As reflected in Table 3, governments, politicians, and citizens must accept that EIA is important and is a requirement for specific development projects. EIA legislation can be used as a focal point around which to coordinate other environmental sector laws or acts. This, in turn, will encourage African countries to take environmental issues seriously and recognise both the potential and benefits of sustainable development and the importance of meeting the targets set by the Millennium Summit in September 2000 for Goal 7 (environmental sustainability) by 2015.

Also, given the shortage of lawyers specializing in environmental matters in sub-Saharan Africa, greater emphasis should be given to training more of them. This, in turn, will help, not only in publicising environmental legislation, but also in deepening understanding of the EIA process.

Table 3 Legal Status Relatinng to Case Studies

COUNTRY	PROJECT	EIA LEGISLATION APPROVED	EIA REQUIRED	REMARKS
MALAWI	Kasinthula Commercial Fish-Farming Project	1996	Yes	EIA and Sectoral guidelines need to be widely publicized to government departments, developers and the public.
ANGOLA/ NAMIBIA	Epupa Dam	1998	Yes	Although the EIA Environmental Management Act recommend steps to be taken to incorporate EIA, yet there are no guidelines.
NAMIBIA	Okanjande Graphite Project	1995	Yes	Environmental Assessment Policy and EIA legislation are not accessible to the public and need to be popularized. Inconsistencies across sectoral legislation still exist, with some laws contradicting each other in terms of EIA.
LESOTHO	Lesotho Highlands Water Project, Phase 1B	Pending	Yes	Government does not have the capacity to deal with EIA.
REPUBLIC OF SOUTH AFRICA	ESKOM Wind-Turbine Demonstration Facility	1998	Yes	Most significantly, the EIA regulations excluded mining. In the new NEMA, the section pertaining to EIA in the Environmental Conservation Act has not yet been repealed.
MOZAMBIQUE	Aluminium Smelter Project	1997	Yes	EIA is progressively becoming a key factor for approving development initiatives in the country.
BOTSWANA	Trans-Kgalagadi Road Project	No	Yes	Botswana has no legislation for EIA, practitioners do not necessarily follow the most appropriate or publicly accepted process, and the quality of EIA varies widely.
SEYCHELLES	Banyan Tree Beach Resort	1996	Yes	Currently, the legal system has not been used to defend environmental principles relating to EIA in Seychelles.
NIGERIA	Utapate Pilot Project	1992	Yes	Shell claims to have done EIAs in the past, but they did not sensitize the public and no information was shared under this project. They adopted a strategy of partnership with all stakeholders which has yet to be implemented. Nigeria is now keen on compliance with EIA legislation.

Source: Various country reports reviewed and covered in the paper.

• Promoting and Supporting Capacity Building

A constraint mentioned earlier is the lack of local capacity to conduct EIAs and to monitor and audit Environmental Management Plans. In many countries, governments have little expertise available to review the EIAs prepared by proponents. However, Botswana, Malawi, Seychelles and Angola insist that they certify the few local EIA experts and consultants available before they carry out EIA activities.

This is not only to ensure that EIAs prepared are of high quality, but also to strengthen local capacity. Perhaps, the sub-regional organizations should develop mechanisms to certify national consultants who can be used within regions.

Second, sometimes national universities carry out EIA studies (e.g. Angola/Namibia, Botswana), and often their governments and sponsors/donors encourage them to continue with the work. Given that many sub-Saharan universities suffer from a lack of well-qualified staff, “twinning” should be arranged with European and North American institutions. Such partnerships would provide practical experience and updated information on the EIA process. This, in turn, will enable the African universities to carry out studies with colleagues from other countries, and have some of their students follow postgraduate courses in western universities. The African Ministers’ final Communiqué of 1995 supports this arrangement.

Third, the African Ministers of Environment meeting of 1995 and follow-up meetings stressed the need for collaboration among African countries in sharing their experiences of EIA and exchanging information and expertise. The SADC region shows encouraging progress on sharing EIA information. According to Tarr (2003), most SADC governments have created EIA units, and discussions are underway to harmonize the process throughout the region. SADC’s cooperation arrangements will probably achieve this. In SADC, each country is responsible for coordinating a particular economic sector, a format that is gradually promoting regional cooperation. According to Tarr (2003), the SADC countries have already agreed to cooperate in natural resource management, and the protocol on Shared Water Resources is a significant achievement in this regard.

Fourth, Issa (2003) notes that the Eastern Africa Association for Impact Assessment was established recently to support EIA capacity-building and to strengthen the practices in the sub-region. At the continental level and in response to recommendations made by the 1995 Durban Meeting of Ministers, the New Partnership for Africa’s Development (NEPAD) has established an EIA association with chapters in each sub-region. These are positive developments that unfortunately are limited to the SADC countries and Eastern Africa: EIA activities are little publicised in the rest of the continent. Perhaps one reason for Central and West Africa not being well covered is that several countries there are either in crisis or post-crisis.

Fifth, given that capacity building is an expensive activity, especially in areas such as EIA, sub-Saharan African countries need to explore alternatives: specifically, to examine the possibility of South-South cooperation. Presently, some sub-Saharan countries have bilateral arrangements with emerging-market countries, such as India, Singapore, Thailand, Malaysia, Indonesia and China. However, South-South cooperation is a two-way street. If Southeast Asian countries offer to send their expertise to a sub-Saharan African country, the host country should meet the local costs. It should not be overlooked that even South-South cooperation costs money and funding sources must be found to support the arrangements.

Lastly, EIA capacity building has to be the responsibility of African governments. By approving and adopting suitable legislation, they would show that they are committed to meet the responsibilities and requirements that go with EIA. Specifically,

they should commit themselves to civil service reforms that reward performance, commitment and professionalism. They should create an enabling environment that will attract skilled professionals and encourage qualified African graduates living abroad to return home and contribute to nation building. Capacity building in sub-Saharan Africa should be seen from a holistic perspective, and governments should provide the direction for the way forward.

Malaysia and Singapore are examples of governments that have recognized the role an effective and functional civil service can play in advancing the country. For example, Tan (1999) argues that in Singapore, legislation relating to the environment is found throughout at least two dozen acts, not all of which come under the Ministry of Environment. Fortunately, the dispersed authority over environmental matters does not pose too severe a problem because the country has a comprehensive planning process that draws representatives from all relevant government agencies. These agencies meet continuously to coordinate the formulation and application of their policies. Also, the enforcement of environmental laws by the relevant agencies is quick and stringent. Moreover, given the small size of Singapore and its population of four million people, planning and implementation are highly centralized activities (Tan 1999). In fact, Singapore has no legislation making EIAs mandatory. Whatever EIA studies have been done in the past were on an ad hoc basis. Singapore has met a high level of environmental standards: African governments would do well to revisit their environmental strategies and commitments.

In short, without strong national capacity-building mechanisms, development of the EIA process in various areas and sectors will be difficult.

• Deepening and Promoting Public Awareness and Participation

According to Baines and Taylor (2002), public awareness is a concept that means different things to different people, all coloured by different political and cultural settings. The case studies reviewed suggest that Nigeria has had a bad experience with public awareness and participation.

According to local reports: “EIA legislation in Nigeria does not require companies to consult communities on all the projects they are funding. This has resulted in oil companies carrying out their activities without regards to community.” (Amnesty International 2004). A youth leader said:

“If they had consulted us, we would have educated them on the value of our land. We would have told them where and how to put bridges or culverts and thus avoid this catastrophe. . . . They have destroyed the habitat of our fishes, our animals, our forests, and also farmlands. Does this mean that they do not know what is right and wrong?” (Environmental Rights Action of Nigeria (ERA) 1997).

ERA (1997) also claimed that Shell did not do an EIA, although Shell claimed that they did.

Common Constraints to Public Awareness and Participation

An analysis of the case studies identified several constraints to public awareness and participation. The following listing has some duplication but is not exhaustive.

- Public hearings provided for under the Environmental Management Act were never held;
- The developers did not consult the local communities directly;
- Interested and affected parties suffered a lack of access to information;
- The public had only limited opportunities to play a role in determining the EIA terms of reference;
- Interested parties lacked the opportunity to provide input at the beginning of the process or during the project;
- Public and government institutions participated little in the EIA process;
- The public showed a lack of appreciation of the role of EIA in development and had insufficient information about proposed development projects;
- There was an absence of peer review to provide assurance to NGOs and other interested and affected parties that the EIA process, method, and studies were rigorous and credible;
- Local people did not understand the EIA process and therefore were not motivated to become involved;
- There was no response to the public on the effect of their comments so they assumed that no cognisance was taken of their concerns;
- People were afraid to speak against the government, which they consider the ultimate authority;
- No detailed records of public consultation meetings were taken;
- It was difficult to objectively assess the effectiveness of public participation due to a lack of accurate records of people consulted and issues addressed;
- The public were perceived as a nuisance and therefore there was no need to involve them.

Sources: Mpotokwane and Keatimilwe 2003; King and Walmsley 2003; Tarr and Tarr 2003; Rossouw *et al.* 2003; Motsamai *et al.* 2003; Hatton *et al.* 2003; Spong and Walmsley 2003; Russo *et al.* 2003.

From the above and as a prerequisite for public involvement, the African governments should increase and improve efforts to make the EIA process comprehensible to average citizens and the informed public in order to strengthen the credibility of the EIA process. For example, EIA consultants sometimes do not take into account the public's different levels of understanding and capacity. Most of the reports they produce are complex and difficult to understand, not only by the public but also by government officials (Kakonge 1996; Diduck and Sinclair 2002). The EIA process loses much of its value if reports are difficult to comprehend or are not produced in time for those who can understand them to give their comments. This has been the case, especially in the Niger Delta, and it has created mistrust and suspicion. Duruigbo (2002) says:

“Community leaders still insist that it is possible for companies to obtain permits and commence oil production without conducting an environmental impact study. It is difficult to gauge the true state of affairs. Perhaps the lists of participants' names are fictitious (given that no addresses are listed) or represent members of the public who have been hand picked by the companies in question. Conversely, it is possible that community leaders are not aware of how the process works and lacked information on when the panels were held. In either case, it is apparent that the system of public notification and hearings lacks transparency and wide publication.”

Duruigbo's observation is not unique. No blanket solutions will make public awareness work: each country is different. However, the following are necessary but not sufficient conditions for it to be effective:

- Governments must ensure that they carry out and enforce EIA legislation;
- Governments must organise public hearings for controversial projects and invite the proponents, affected communities, NGOs and other interested parties;
- Deliberations should be in both the local and official languages, and experts paid by the government should explain any technical issues;
- Governments and donors should help local NGOs, and CBOs to guide affected communities on how to participate effectively in the EIA process;
- Given that many of the rural populations in sub-Saharan Africa are illiterate, governments and donors should use visual aids and radio to enable the public participation in public inquiries or important meetings relating to EIA process.

Clearly, the EIA process calls for an effective public awareness campaign aimed at empowering people to make rational and appropriate choices and decisions about development projects that affect them. This means providing information to all stakeholders in a transparent and understandable manner early in the EIA process. It calls for the use of awareness-raising tools that have a broad effect, such as radio

programmes in local languages; theatrical shows; billboard, newspaper and TV advertising; articles and programmes in the print and electronic media; and setting aside specific days dedicated to publicising environmental concerns with specific emphasis on the EIA process. For the process to be credible, whichever approach or method is adopted, African governments must assume ownership and accept responsibility for the results.

- **Strengthening Existing Enforcement Mechanisms**

As indicated earlier, even where an Environmental Management Plan is well prepared and all activities well costed, enforcement has been lacking. Tan (1999) acknowledged that the success of environmental issues in Singapore has been due to stringent enforcement of regulations. This is a problem in most of Africa south of the Sahara.

For example, Duruigbo (2002) states that vague language and obsolete provisions weaken the legal framework existing in Nigeria, and that lack of enforcement compounds failings. Obasanjo's government established a fully-fledged Environment Ministry, but Nigerian law vests regulatory powers over the petroleum industry with the Nigerian National Petroleum Company (NNPC). This means that NNPC is both a developer, in partnership with foreign companies, and a regulator of the petroleum industry (Duruigbo 2002). In the past, the Department of Petroleum Resources had regulatory control and the Federal Environmental Protection Agency (FEPA) governed EIAs. Two ministries and two organizations are too many: the legislation should be updated to reflect the changes. This would make enforcement clear and remove conflicts of interest and competing jurisdictions.

In most of the case studies, lack of enforcement was due to institutional weakness. This is found in other activities besides EIAs. Enforcement bodies lack manpower, lack funds, and get inadequate equipment and training. The enforcement of EIA should be the responsibility of the government and not the proponent, as it is now in many places. For example, during the Lesotho Highlands water project, the outcry from both international and national NGOs forced action on the donors and the government of South Africa. They established a panel of independent experts to conduct an annual review that determines if the activities agreed under the Environmental Management Plan are taking place. That mechanism and regular meetings with communities created a sense of trust and respect among the government, donors, and communities. In Nigeria, Shell Petroleum Development Corporation's Utapate Project takes a similar approach, but they are proposing to use third parties to ensure enforcement of the environmental management plan activities.

In Angola, Russo *et al.* (2003) argue that rarely are mitigation measures implemented or penalties imposed on projects that do not comply with EIA guidelines and recommendations. In Botswana, no EIA legal framework exists; everything is done on an ad hoc basis. In the Republic of South Africa, Staerdahl *et al.* (2004) confirm that neither the 1997 EIA legal framework nor the 1998 guideline document of the Department of Environmental Affairs and Tourism mention or include EIA monitoring.

Regarding the mining sector in sub-Saharan Africa, Boocock (2002) has this to say:

“As far as regulations and standards are concerned, as a general policy, internally accepted standards should be adhered to in the absence of such standards in the country concerned. The standards to be used should be acceptable to the government. With respect to rehabilitation, it will be necessary to ensure that it occurs as an outgoing process throughout the life of a mine, wherever possible.”

While legally enforceable codes of conduct are indispensable, they are flouted in most sub-Saharan countries (Abugre and Akabzaa 1998). With regard to enforcement, Abugre and Akabzaa make the following suggestions:

- 1) A polluter-pays principle, extended to social costs, should be at the centre of investment codes. Social learning should be seen as a valuable input into obtaining investor interests;
- 2) Guidelines for EIAs and EMPs should explicitly require effective community involvement in baseline studies and adoption of study methodologies that are participatory and easy to understand;
- 3) Mining companies should bear the costs of preparing a community to ask relevant questions at an EIA hearing. Standard training packages for mining communities would be a useful complement to EIA guidelines.

• **Creating Enabling Environments to Accelerate the EIA Process**

As the preceding analysis has shown, the EIA approach is relevant in African countries. However, the case studies and other sources suggest that some sub-Saharan countries are more ready and able to undertake the EIA studies than others. The fundamental question remains as to how the process of using EIAs in environmental planning can be accelerated. The Deputy Minister of Environment and Tourism in the Republic of South Africa (RSA) summarized this dilemma as follows:

“In spite of its relatively long history, the introduction [of EIA] everywhere has not been easy. Planners claim they have always been doing it. Developers see it as another costly and time-consuming constraint in development. Development hungry governments have met it with less enthusiasm everywhere. In South Africa these factors combined to cause an effective delay of years before the first EIA regulations were promulgated . . .” (Mokaba 1997).

This is true for many Sub-Saharan African countries, so African governments need to popularise and explain the value of the EIA process. It is unfortunate when governments shirk their obligations. For example, in Liberia, it is the NGOs and civil society, as opposed to the government, who have taken the lead in environmental protection (Africa News 2005). Despite Liberia’s current predicament, a situation like this should be avoided at all cost. Ideally, NGOs and civil society should be in partnership with the government, but they should not spearhead the process.

Meeting all the requirements of the EIA process obviously calls for adequate financial resources. In sub-Saharan countries, governments alone cannot meet the expense, especially when the costs of training and employing qualified personnel are added. Nevertheless, these governments can help themselves. Specifically, they should make every effort to tap local resources by soliciting contributions from the private sector, some NGOs, and rich individuals.

- **Enforcing the Polluter Pays Principle**

Governments should rigorously pursue the “polluter pays” principle, especially in the kind of projects reflected in Table 1 (page 12). In most western nations, whoever pollutes the environment pays to clean it up. The challenge to make the polluter pay in most countries south of the Sahara is greater because of the prevalence of corruption. If these African countries are serious, then the recommendation of Echefu and Akpofore (1999), although meant for Nigeria, applies to the entire region. Specifically:

“The regulators should be better supported and, for effective compliance monitoring and enforcement, sanctions and penalties should be prescribed and strictly adhered to. This way, environmental requirements will be met and maintained.”

- **Strengthening and Supporting the Role of NGOs and CBOs**

NGOs helped expose the environmental problems of the Lesotho Highlands project, while in Angola/Namibia, NGOs played a key role in ensuring the public was fully involved in the Epupa project. The NGOs’ prime aim was not to let local people be tricked into agreeing to a project without properly considering and understanding the implications (Tarr 2003). This was also true in the Nigeria Delta Region, where NGOs have confronted the government for years. Most of these have been international NGOs, with a few local NGOs and community-based organizations (CBOs) also participating. Also, The World Conservation Union (IUCN) (1999) acknowledges that locally and nationally based NGOs can contribute greatly to raising environmental awareness, including the EIA process.

Given that NGOs are not accountable to governments or communities, they can play a constructive role. However, they can also play a destructive role. Communities and governments must monitor them to ensure that they are objective and constructive: that they provide a full picture of the options in or alternatives to the projects in question. Notwithstanding, local NGOs need support to be effective.

- **Recognising and Encouraging the Role of the Media**

The media have played and continue to play a key role in demystifying the EIA process in sub-Saharan Africa. National and regional workshops, seminars, and meetings are all ways to publicise EIA. Media houses, both national and international, publish articles relating to EIA activities. For example, stories on the Epupa project (Angola) appeared in international and regional newspapers and magazines (Russo *et al.* 2003).

Some governments are critical of the media if they publish any controversial story relating to a project – especially when the environment is involved. In countries such as Botswana, which has a strong democratic tradition, the media coverage on environmental issues is extensive. As part of transparency, which is an element of EIA, discussion of environmental issues through TV and radio programmes should be encouraged (King and Walmsley 2003).

CONCLUSIONS

This paper has argued that sub-Saharan countries are at a crossroads vis-à-vis the use of EIA methodologies and processes. From the case studies and the general discussion, six underlying principles have emerged as relevant to the future of the EIA process in the region.

- **Ownership**

There is little capacity within the sub-Saharan African countries to facilitate the expansion of EIA. In most countries, experts are foreign and the few African experts available are not well remunerated. A few specialised environmental assessment companies exist, especially in South Africa, but it will take time before sub-Saharan Africa countries have seasoned experts to carry out quality EIAs. It therefore remains the responsibilities of sub-Saharan governments to address the issues of EIA ownership and capacity building as a matter of urgency.

- **Meeting Obligations and Commitments**

Sub-Saharan African countries must take their international commitments and agreements more seriously. For example, during the 1992 Earth Summit, all participants agreed and endorsed the Rio Declaration, which affirmed that environmental issues should be integrated in the development process. However, to many observers in sub-Saharan Africa, environmental issues appear as additional items on the development agenda, which have added to its complexity and cost of implementation. This is unfortunate, because if environmental issues were fully integrated in the planning process, EIA's would not be regarded as a burden to economic development, but rather as a means of promoting sustainable development. As Tan (1999) argues, Singapore took environmental issues seriously prior to Rio and they continue to be part of the planning process and it has no EIA legislation.

- **Funding**

From the case studies, apart from Namibia, South Africa and Seychelles, there were no examples of governments themselves financing EIAs. Most of the projects were financed by other parties or were part of a loan approved by either bi-lateral or financial institutions. Nevertheless, a loan is still a burden, which has eventually to be paid back. For example, the original \$2.35 million

Epupa EIA study was inconclusive and will require a fresh EIA for \$3.5 million, so the total cost is likely to be around \$6 million. Such sums are significant for developing countries and might be used on more worthwhile projects. African governments should, therefore, take the cost of EIA very seriously and allocate sufficient funds in their budget for the monitoring and auditing of development projects that have been subject to EIA. Effective monitoring and auditing ensures compliance with the stipulation of planning permits.

- **Public Sensitization**

Up to now, many people in sub-Saharan Africa are unfamiliar with the concept of EIA, including government officials, local NGOs and the communities. This was the case in Malawi, Seychelles, Namibia and others. So there is an urgent need for aggressive awareness campaigns on the merits and demerits of the EIA concept. For example, a variety of workshops have been held for government officials, academics and representatives of the private sector in the SADC region, but the impact has been minimal. Elsewhere on the continent, knowledge of the EIA process is patchy and generally weak. Given the heavy turnover of government officials (and as agreed at the 1995 Ministers of Environment meeting in Durban), there is a continuing need for sub-Saharan African governments and their partners to raise awareness and sensitize all stakeholders to the concept and principles of EIA.

- **Corruption and Poor Governance**

Corruption and poor governance seem to be a continuing and fundamental challenge for the implementation of the EIAs in some parts of sub-Saharan Africa, with adverse consequences on the enforcement and compliance of the EIA mitigation measures. Although some case study projects were approved and their mitigation plans endorsed by all stakeholders, implementation was weakened because of lack of compliance. Even where enforcement capacity was in place, as in the case of Rufiji Prawns Project in Tanzania, staff of the National Environmental Agency were frustrated by instructions from the cabinet (Lissu 1999). Similarly, in the case of Nigeria, the cabinet permitted the EIA legislation not to require oil companies to disclose their reports and critical information to the public. Senior members of government should be held accountable where they are suspected of withholding EIA reports or information from the public to protect individuals or commercial interests. Governments should ensure that corrupt individuals or companies are appropriately penalised.

- **Research and Partnership**

Development of EIA in sub-Saharan Africa will also depend on research findings and the sharing of knowledge and experience, both negative and positive. Research and information-sharing networks, linking local, national, sub-regional and regional institutions, are essential for capacity building.

Without further investment in research, especially monitoring and auditing of ongoing EIA supported studies, it will be difficult to determine the effectiveness of the process. The solution of this problem calls for partnerships of academia, government institutions, NGOs, and the private sector.

In conclusion, EIA can be effective in sub-Saharan Africa if it is genuinely integrated within the overall planning process. As emphasized by Tan (1999), “Environmental laws and regulations are efficiently administered through a comprehensive planning process and stringent enforcement system in Singapore.” This is the way forward. Sub-Saharan African countries should examine the Singapore approach, as a successful model for dealing with environmental issues, to determine whether some elements are relevant to their own circumstances.

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LIST OF ACRONYMS

IAIA	International Association for Impact Assessment
CBO	Community-based organization
DEAT	Department of Environmental Affairs and Tourism (Republic of South Africa)
EIA	Environmental Impact Assessment
ERA	Environmental Rights Action of Nigeria
EMP	Environmental Management Plan
ESKOM	Electricity Supply Commission of South Africa
FEPA	Federal Protection Agency of Nigeria
IUCN	International Union for the Conservation of Nature (World Conservation Union)
NEMA	National Environmental Management Act (South Africa)
NEPAD	New Partnership for Africa's Development
NGO	Non-governmental organization
NNPC	Nigerian National Petroleum Company
OECD	Organization for Economic Cooperation and Development
SADC	Southern Africa Development Community
SPDC	Shell Petroleum Development Corporation
UNCED	United Nations Conference on Environment and Development

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Over the last twenty-five years, Dr. John Kakonge has had a long and distinguished career with UNDP. For some twelve of those years, he was a UNDP Resident Representative and UN Resident Coordinator, first in Lesotho, then Liberia, and most recently in The Gambia. During his career, he has also worked for the UNDP in Nigeria, Sierra Leone and Malawi and at the organization's New York headquarters.

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