

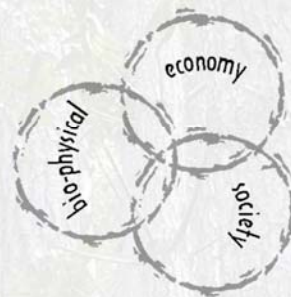


**DEPARTMENT OF WATER AFFAIRS AND FORESTRY
REPUBLIC OF SOUTH AFRICA**

DRAFT SCOPING REPORT

30 JUNE 2005

The development of a Strategic Environmental Assessment (SEA) for the Zone of Afforestation Potential in the Eastern Cape



Strategic Environmental Assessment





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REPORT**

30 June 2005

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"Transforming and Integrating Communities"
CONSULTING DEVELOPMENTAL MANAGERS



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1 INTRODUCTION

1.1 SPECIFIC OBJECTIVES

This Strategic Environmental Assessment (SEA), which broadly encompasses the zone of afforestation potential in the Eastern Cape Province, was commissioned by the Department of Water Affairs and Forestry (DWAF) to assess the potential for new afforestation and its relative costs and benefits in comparison to other potential land uses. A major challenge of the SEA is to assess whether new forestry can optimise development opportunities relative to alternative land uses, whilst being mindful of the constraints presented by the environment.

In doing so, the SEA must reflect on the nature of the forestry industry, which is more than just the planting and growing of trees, although this tends to be the most obvious impact and issue of greatest concern. Successful forestry depends on managing and harvesting timber, and establishing markets for the product. The SEA is fundamentally concerned about rural livelihoods, social conditions, new employment prospects, skills creation and the ‘overall wellness’ of people. Above all, any new forestry should bring with it sustainable development which supports and does not conflict with other land uses.

Ultimately this SEA seeks to identify and support *sustainable land use practices* within the Water Management Area (WMA) 12 Contextual Study Area, and in particular, to identify those areas that may be suitable for new commercial and community afforestation projects. It therefore represents a structured, proactive process to strengthen the role of environmental issues in strategic decision-making, and does so through the comprehensive and strategic assessment of social, economic and environmental constraints and opportunities. The specific goals of this SEA are as follows:

- Identify and respond to the needs of the residents of WMA 12 with respect to social, economic and environmental resource needs;
- Identify and make the case for protection of those areas of WMA 12 that are ecologically sensitive or important to the conservation of biodiversity;
- Identify and make the case for protection of those sites or areas that are culturally sensitive or have historic value to the nation and/or local population;
- Promote co-operative governance and integration with existing local and provincial planning processes;
- Promote equitable allocation of water;
- Offer a medium and long-term perspective on development;
- Provide opportunities for economic empowerment of the local population through a reasoned and integrated assessment of income opportunities from various land use options;
- Provide sufficient information on the environment of the study area (economic, social and environmental) to facilitate informed decision-making regarding sustainable land use; and
- Codify this information into a simple decision support system (DSS) for use by decision-making authorities at national to local level.

This SEA will not provide a blueprint for either forestry or any other land use but will explore practical options. However, DWAF, as the commissioning agency, firmly intends to take forward positive findings from the SEA with regard to new afforestation potential (should

these materialise) and to formulate a forestry strategy with the help of provincial and municipal authorities.

An important part of any SEA is to establish at an early stage the context and issues through the publication of a scoping report, which describes the scope of studies. This report sets out the consultants' initial findings and its purpose is to elicit response and guidance from stakeholders and public interest groups. This report is far from exhaustive and all additional inputs will be most appreciated.

The critical issues investigated in this Strategic Assessment include (in no particular order of importance):

- i. Areas where it may be appropriate to grow trees, establish crops such as maize, tea and sugar, or develop livestock farming and tourism on a sustainable basis.
- ii. Whether there is the capacity to manage commercial afforestation and commercial agricultural development.
- iii. The extent to which afforestation, and to a lesser extent commercial agriculture and tourism, could generate new income earning and employment opportunities in the region.
- iv. The extent to which afforestation will compete with existing land uses and other potential commercial land uses, such as agriculture.
- v. The impact that afforestation and commercial agriculture and tourism may have on existing livelihoods and land uses.
- vi. The impact that afforestation may have on water availability and use, as well as biodiversity, as compared to other potential uses such as commercial agriculture which are not stream flow reduction activities¹.
- vii. Whether there is the potential to effectively link afforestation developments with timber processing industries and markets.

Based on the above objectives, a suggested vision for this SEA is:

“To assist in the alleviation of poverty in the rural areas of Water Management Area 12 in the Eastern Cape by investigating sustainable land use options that ensure equitable access to natural resources, most especially water, with an emphasis on forestry development where appropriate and acceptable.”

1.2 STUDY AREA

The Study Area includes the entire Mzimvubu-Keiskama Water Management Area (WMA) 12 extending from the Keiskamma River catchment in the south to the Mtamvuna River catchment in the north (see Figures 1.1 & 1.2). This area was chosen for study as it is reported to represent “the greatest unquantified forestry potential remaining in South Africa” (Harrison 2005). There are two components to this SEA:

¹ Commercial afforestation is identified as a stream flow reduction activity (SFRA) under the National Water Act and is subject to licensing. Although forestry is at the moment the only SFRA, DWAF is currently in the process of identifying other land use activities with a view to declaration as SFRAs. One of the considerations when issuing licences is the efficient use of water (s27(1)(c)).

1. A broader, contextual SEA that covers the entire WMA, together with the Mtamvuna and Mzimkhulu catchments. This study is at a broader strategic level.

2. A fast-tracked Focus SEA for a sub-set of the total study area, providing a level of detail sufficient to immediately support decision-making on development options, and particularly whether or not authorisations should be granted for new afforestation projects. This Focus Study Area incorporates the Mtamvuna (T40), Mt. Ayliff (T32) and Lusikisiki (T60) catchments.

The WMA 12 is located in the eastern portion of the Eastern Cape Province. The total area is approximately 71 204 km² and it encompasses all or a part of the following District Municipalities (DM):

- ❑ Amatola
- ❑ Ukhahlamba
- ❑ Chris Hanani
- ❑ Alfred Nzo
- ❑ OR Tambo

The Focus Study Area (approximately 6 633 km²) encompasses all or a part of the following Local Municipalities within the OR Tambo DM:

- ❑ Mbizana Municipality
- ❑ Qaukeni Municipality
- ❑ Port St Johns Municipality
- ❑ Ntabankulu Municipality
- ❑ Part of the Umzimvubu Municipality (Alfred Nzo DM)

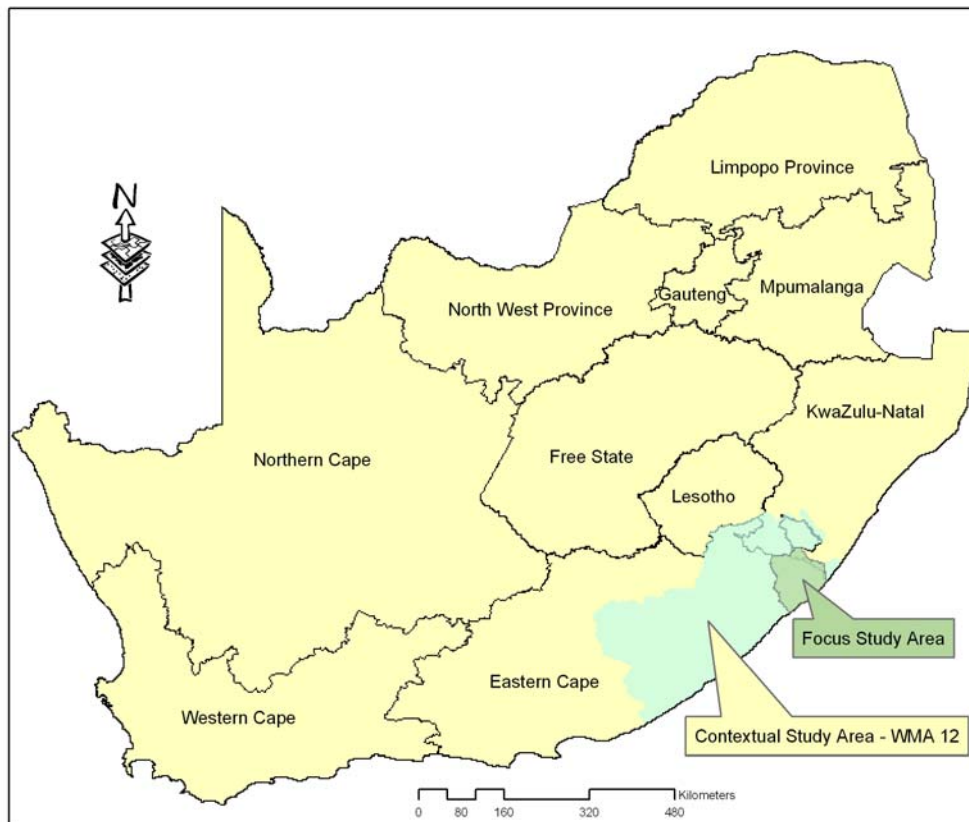


Figure 1.1: Contextual and Focus Study Areas



Figure 1.2: District and Local Municipalities in the Contextual Study Area

Major river systems that traverse the overall study area include the Gqunube, Kwelera, Great Kei, Qora, Nqabara, Mbashe, Xorana, Mtakatye, Mngazi, Mzimvubu, Mbotyi, Msikaba Mtentu, Mtamvuna, Mzimkhulu and Mzamba. Headwaters for these rivers generally start in the footslopes of the lower Drakensberg to the north, and moving southwest include the Stormberge and Bamboesberg highlands. These streams generally drain in a south-easterly direction towards the Indian Ocean. The major river systems within the Focus Study Area are (from southwest to northeast) the Mzintlava, Msikaba, Mtentu, Mnyameni, Mzamba and the Mtamvuna (see Figure 1.3). Elevations within the WMA 12 range from sea level to 3 000 metres. Within the Focus Area, elevations range from sea level to approximately 2 250 metres up against the Drakensberg mid-scarp. A number of significant estuaries are located along the coastline at the mouths of the major river systems.

WMA 12 is predominantly rural and encompasses a wide variety of rural land uses including residential, commercial and subsistence agriculture, grazing of large and small stock and dry-land cultivation of crops such as maize. Private commercial farming dominates in approximately 20% of WMA 12, but this is largely confined to the so-called 'Border Corridor' between the two former Transkei and Ciskei homelands. Disadvantaged rural settlements under various communal forms of tenure occupy over 80% of the WMA 12 and coincide with the boundaries of the former Transkei and Ciskei areas, but also occur outside the borders of the former homelands. In these communal areas land use takes the form of a mixture of extensive livestock farming on communal grazing lands, the cultivation of subsistence crops on individual plots, together with the harvesting of natural resources. These rural settlements are typically comprised of between 50 and 300 households.

The total population for WMA 12 was almost five and a half million in 2001. The most densely populated districts are those where the major urban centres are found, those being Amatola (including East London, King William's Town and Bisho) and the OR Tambo district (including Umtata). The African population group make up by far the majority of the population and in two districts (OR Tambo and Alfred Nzo) almost the whole population. The male:female proportions of the population are relatively consistent at around 45:55%.

The data on employment and household incomes presents a rather bleak picture of pervading poverty. Average unemployment for WMA 12 is approximately 35.4% of the total population (Total population minus the employed, children, elderly, disabled, sick and housewives). Average annual household incomes are very low with 57% of households receiving somewhere between zero and R4 800 per annum, and another 40% earning between R4 801 and R19 200 per annum, which is less than or equal to the household subsistence level of R1 500 per month or R18 000 per annum.

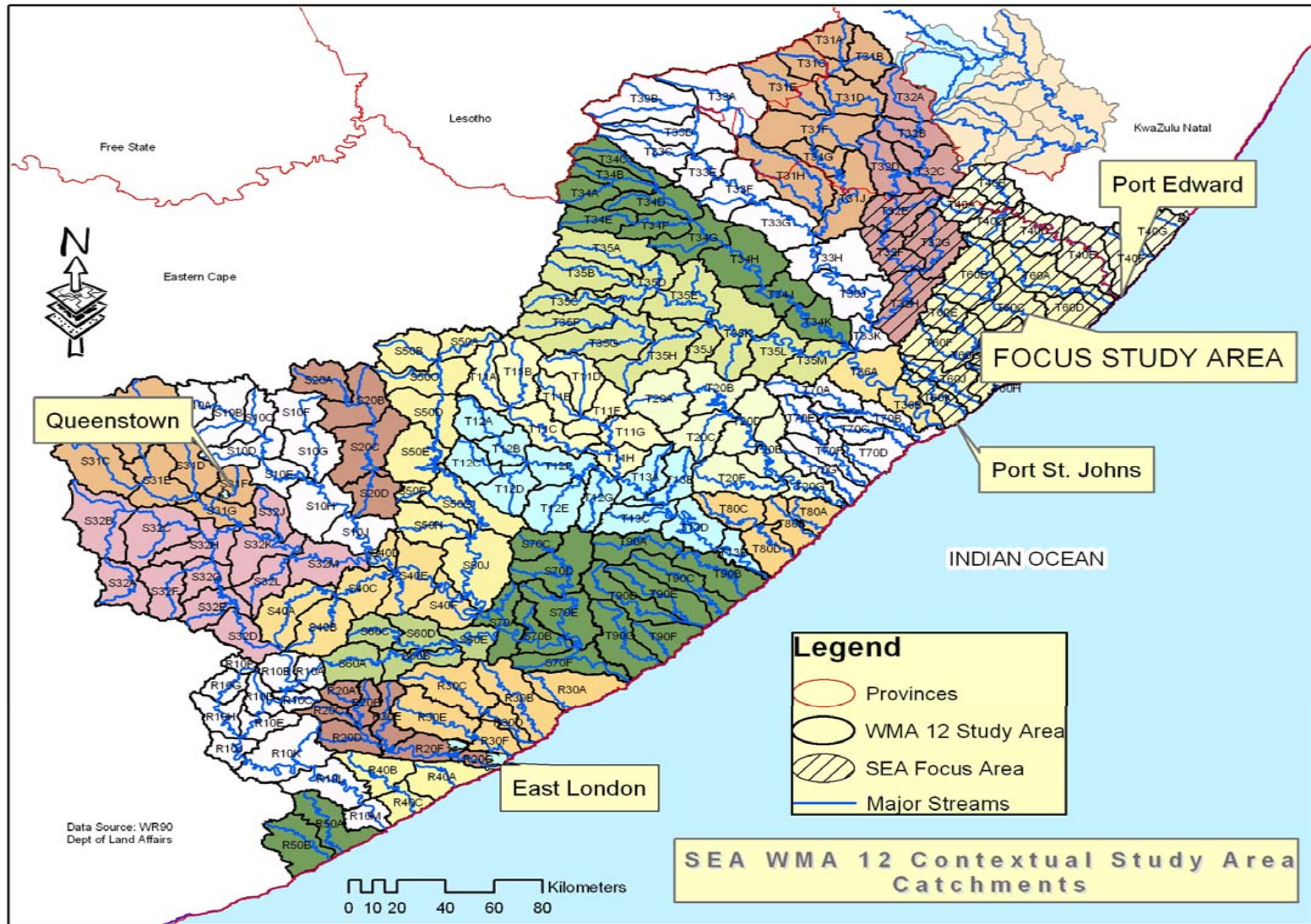


Figure 1.3: Catchments within the Contextual and Focus Study Areas

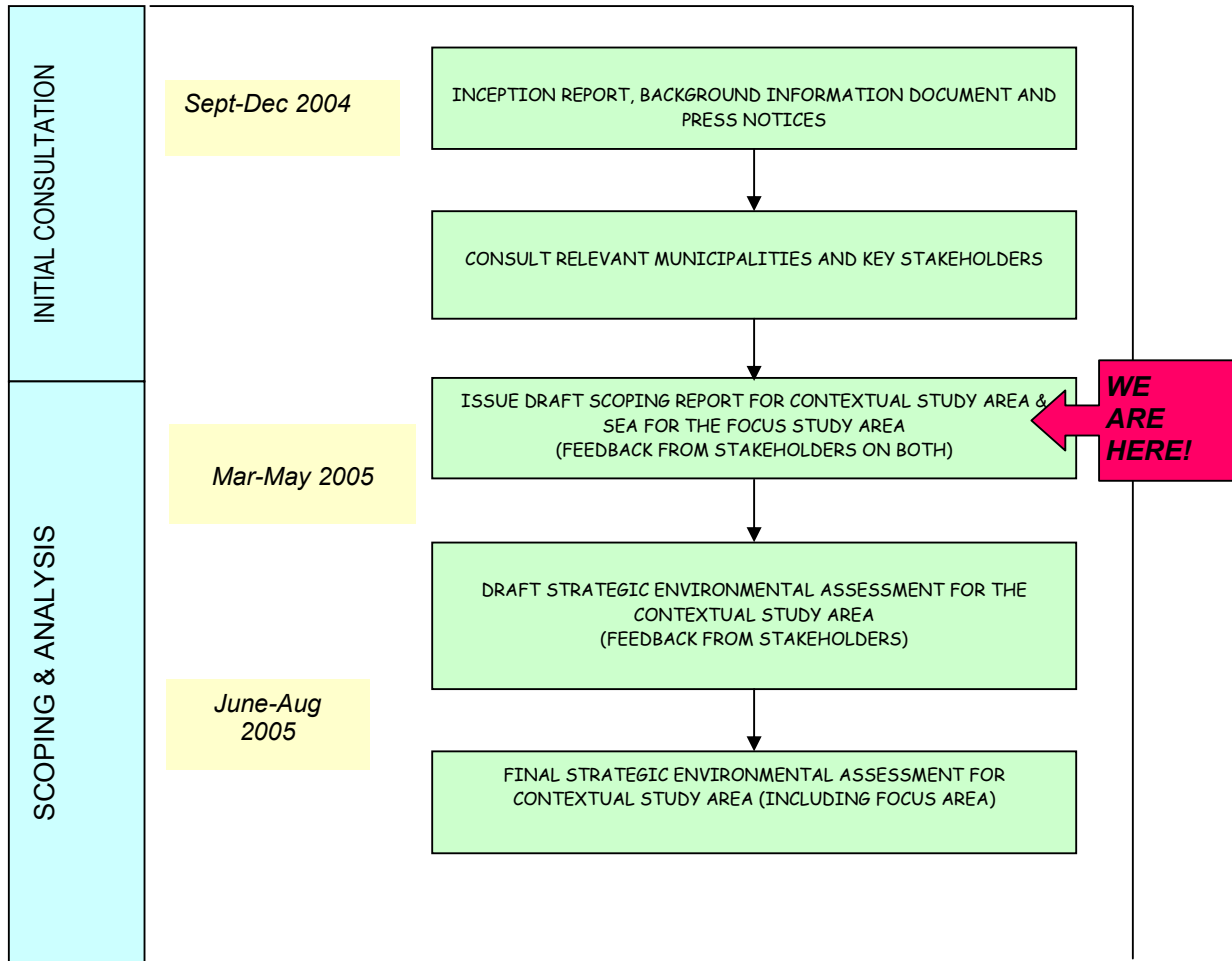
Major towns in WMA 12 include Bisho (the provincial capital), Stutterheim, King William's Town, Ugie, Umtata, Butterworth, Queenstown and East London along the coast. Additional coastal towns and resorts include Morgan's Bay / Kei Mouth, Coffee Bay, Port St Johns, and Port Edward. There are also a large number of small towns that act as service and trading centres in the former Transkei and Ciskei areas. The remaining portions of the Ukhahlamba District Municipality (DM) and the country of Lesotho are located to the north (see map in Figure 1.2). KwaZulu-Natal Province is located to the north and east, and the Cacadu DM is located to the west. The southern boundary is formed by the coastline of the Indian Ocean. The area is served by the National Highway (N2) which connects East London to Umtata and then on to Durban. Other major roads include the N6 national highway connecting East London to Queenstown, the R61 connecting Port St Johns to Umtata and the R63, which runs through King William's Town to Fort Beaufort to the west and Komga in the east. The proposed N2 Toll Road will run inland along the coast from East London in the south to Port Edward in the north (where it will tie into the current N2 alignment), if approved in the current alignment. However, the construction of this road is now in question and the alignment, timing and existence of the proposed N2 are yet to be decided. Rail services are provided by Spoornet connecting the major industrial region around East London to the rest of the country. The proposed Kei Rail project will re-establish the link between East London and Umtata. This will increase access to the port at East London for products produced in the interior. The closest port facilities are provided in East London and Durban.

1.3 THE SEA PROCESS AND ITS SUITABILITY FOR THIS STUDY

Since one of the objectives of SEA is participatory decision-making, engaging with civil society at various stages in the process is essential. Box 1.1 briefly outlines the SEA process, and indicates that consultation takes place from the initiation of the SEA throughout the entire process. The initial Scoping Phase has been completed with the release of the draft Scoping Report. As noted in the introduction, this report presents a broad overview of the study area, briefly describes existing and potential development interventions (with an emphasis on the forestry sector) and identifies the environmental² issues raised by stakeholders that may be associated with these interventions. The objective is to ensure that issues are correctly identified and interpreted so they can be investigated further in the SEA. These issues will thereby define the sustainability parameters or conditions for possible development interventions in terms of achieving environmental sustainability.

The SEA was initiated in August 2004 and will extend for approximately fourteen months. Following review and comment on this document (the draft Scoping Report), the consultant team will make revisions and continue towards the development of an SEA for the Focus Study Area. This document will be released for comment by the middle of April 2005 and ultimately introduced as a decision support tool to the Provincial, District and Local government departments. Lessons learned from the implementation of the initial Focus Area SEA will be incorporated into the larger regional SEA for WMA 12 to be introduced in August 2005.

² The reader is reminded that in the context of the SEA, environment is viewed holistically to include ecological, social and economic components.

Box 1.1: Diagram showing the SEA Process for the Contextual and Focus Study Area

A Strategic Environmental Assessment (SEA) was selected as the appropriate mechanism to investigate the suitability of forestry alongside alternative land uses as development interventions to assist in alleviating poverty in WMA 12 for the following reasons:

- Forestry, alongside agriculture and tourism, is thought to offer a viable opportunity for development in high poverty areas of the rural Eastern Cape.
- The potential for forestry development is broadly recognised but not quantified or qualified within sustainable parameters.
- To develop an objective, credible basis for the development of a forestry sector development plan.
- To ensure that the development will be environmentally and socially acceptable, and economically sustainable.
- To ensure that forestry is only promoted where it is feasible, competitive, environmentally acceptable, and is desired by communities.

SEA is a suitable tool since it is a structured, proactive process that strengthens the role of environmental issues in strategic decision-making. It is promoted by DWAF for the management of water use in catchments (DWAF 2001), and is used to develop, refine and appraise programmes and plans in a holistic way by giving equal weight to social, economic and environmental considerations. It is applied to activities that are broader and more complex than individual projects (for which Environmental Impact Assessment (EIA) is the

appropriate analysis tool). In this context, SEA is suitable as it can be used to evaluate the likely social, economic and environmental effects of development programmes (and especially forestry) in WMA 12, and thus help decision-makers to decide on the best development options. In this way the SEA will assist decision-makers to take full account of environmental, social and physical factors when developing and managing the natural resources of the WMA. Figure 1.4 conceptually represents the inputs and assessment of various SEA components for this project.

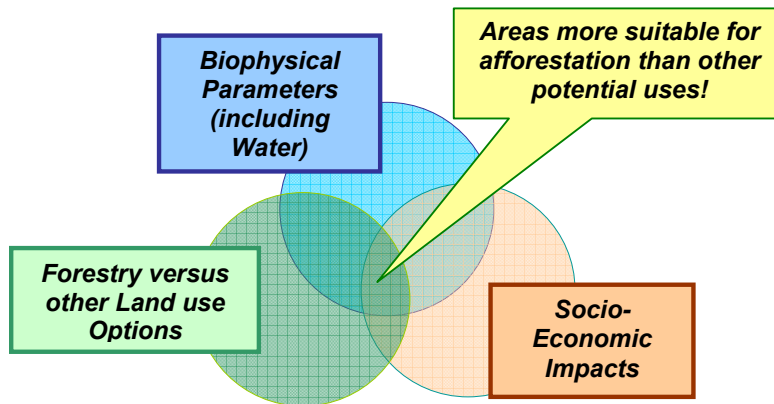


Figure 1.4: Conceptual Inputs

SEA is able to achieve this as it is based on the concept of sustainable development, which implies giving equal weight to social, economic and environmental issues. There are many definitions of sustainability, with the best known being the Brundtland Commission statement that, *'development should meet the needs of present generations without compromising the rights of future generations'*. The Government of the United Kingdom has produced a practical working definition that all development should:

- *Help to create strong and stable economic growth;*
- *Avoid damage to the environment;*
- *Ensure prudent use of natural resources; and*
- *Achieve social equity.*

An important role for this SEA will therefore be to develop and test appropriate criteria and indicators that can be used to assess the extent to which land use options are capable of delivering on sustainability principles. This will be achieved by identifying opportunities and constraints that the environment places on development, and by providing guidelines to ensure that development is within sustainable limits. These limits will need to be defined through a consultative process, and your input as a stakeholder is very important.

Another function of an SEA is to identify the issues that are of fundamental importance to both stakeholders and decision-makers. These may be technical, social, economic, environmental or political in nature, and their relative importance, in relation to each land use option will only emerge as the SEA progresses. This output will be in the form of a decision support system that is simple enough to use at the local level and also applicable at a national level. It will be focused primarily on determining the suitability of forestry as a land use option against other viable alternatives.

SEA is also a suitable mechanism to ensure that the responsibilities placed on DWAF by the National Water Act are followed. These are, to ensure that the nation's water resources are managed fairly and equitably to meet the needs of present and future generations, to redress past racial and gender discrimination, to facilitate social and economic development, and to protect the natural environment.

In undertaking this SEA, we have been guided by the SEA principles developed by the Department of Environmental Affairs and Tourism, which essentially reinforce the points raised above (see Box 1.2).

Box 1.2: SEA Principles

1. SEA is driven by the concept of sustainability.
2. SEA identifies the opportunities and constraints that the environment places on the development of policies, plans and programmes.
3. SEA sets the criteria for levels of environmental quality or limits of acceptable change.
4. SEA is a flexible process which is adaptable to the policy, planning and sectoral development cycle.
5. SEA is a strategic process that begins with the conceptualisation of the policy, plan or programme.
6. SEA is part of a tiered approach to environmental assessment and management.
7. The scope of an SEA is defined within the wider context of environmental processes.
8. SEA is a participative process.
9. SEA is set within the context of alternative scenarios.
10. SEA is based on the principles of precaution and continuous improvement in achieving sustainability objectives.

Source: SEA guidelines prepared for the Department of Environmental Affairs and Tourism (CSIR 2000).

1.4 STAKEHOLDER ENGAGEMENT

SEA establishes ways of doing things by asking 'what if' questions in open debate with stakeholders. As a stakeholder you are therefore encouraged to engage in the debate so that a full range of issues can be identified and understood for integration into the study. In other words, this SEA offers an open, transparent and participative process for examining the likely consequences of implementing a forestry programme as one of a number of land use options in WMA 12, without prejudicing the authority of the decision-maker to determine appropriate courses of action. It also provides a framework for comparing a forestry programme with other development interventions which may be more suitable to meet the primary objective of poverty alleviation. It is evident from the above that consultation with stakeholders is an important component of an SEA. During the first round of stakeholder meetings, and in particular those with Provincial and District officials, the following questions were raised of the SEA Team by various stakeholder representatives.

Question 1: What are the anticipated products of the SEA?

Answer 1: The SEA is itself a product that will inform the development of a Strategic Forestry Development Plan for the region. In addition, it will produce a decision support system (DSS) to assist DWAF, District and Local Municipalities to assess land use options, in particular, commercial afforestation proposals. It will do this by developing a database that identifies lands that may not be suitable for commercial afforestation due to any number of potential factors. These may include:

- Environmentally sensitive areas such as: protected areas, indigenous forests, wetlands, streams, areas of high endemism, locations of endangered plants and animals, etc.
- Sites not suitable due to poor growing conditions, no access to markets, lack of adequate infrastructure, lack of available water, etc.
- Areas that are culturally or historically not suited for commercial afforestation, such as culturally significant lands, historical sites, settlements, cemeteries, etc.
- Locations that may be better suited for other, alternative land use options, or that have already been identified for other types of projects. These may include agriculture, grazing, tourism or transportation development, etc.

Question 2: What information does the SEA Team need and require from the various stakeholders that are engaged with the process?

Answer 2: The stakeholders are very important to the SEA process and their active engagement is crucial if the project is to succeed. In addition, they may have information that is vital to decision-makers and therefore needs to be incorporated into the Decision Support System. For example:

- Details on plans for development within their respective areas – these plans may include Integrated Development Plans (IDPs), Spatial Development Plans/Frameworks, Zoning Schemes, the location of designated or planned Industrial Development Zones (IDZs) and/or Spatial Development Initiatives (SDIs).
- Information on sensitive environmental features or issues that they are aware of, for instance, the location of local parks, species of special concern, areas of seriously degraded lands, etc.
- Information on culturally significant resources in their communities, sacred sites and areas used for traditional ceremonies, etc.
- Data on projects that are up and running or planned within their areas. These may be planting schemes, invasive alien plant removal, poverty alleviation programmes and development initiatives, either government or NGO sponsored.

Question 3: How are the results of the SEA to be integrated with other decision-making and land planning processes currently in use?

Answer 3: It is intended that the SEA Decision Support System (DSS) will be integrated into the land use planning and project review activities of the District and Local Municipalities. Ideally, the results of the SEA will inform and guide the appropriate components of the Local and District level Integrated Development Plans (IDPs). Decision-makers will be provided with the data sets for incorporation into their respective Geographic Information Systems (GIS) and in hard copy format for display and use. An accompanying manual will provide detailed instructions and procedures for using the SEA DSS to assist in land use planning and project review processes.

Question 4: How is this SEA different from other SEAs currently being undertaken in the region?

Answer 4: A Strategic Environmental Assessment is being completed for the Wild Coast portion of the Eastern Cape. This SEA is also intended to guide land use decisions within a more limited planning domain by focusing on the coast and extending inland approximately 30 kilometres. The goals of the two SEAs are similar, and therefore confusing to many. They both seek to guide land use planning in the region with the aim at arriving at the most sustainable development alternatives. While there is considerable overlap in the overall goals, the geographic extent is considerably different in that the DWAF SEA covers a much larger contextual area. However, the two SEA consultant teams are coordinating their activities and sharing information. The successful integration of the findings and recommendations of the two SEAs is a goal shared by all parties involved.

The broader public, including any stakeholders or interested and affected parties, such as you, are also invited to respond. You may raise issues, concerns, opportunities and constraints, or suggest alternative forms of development that might be more appropriate to achieve the primary objective of poverty alleviation. In short, you should contribute in any way you feel appropriate.

2 LAND USE DEVELOPMENT OPTIONS IN WMA 12 CONSIDERED IN THE SEA

2.1 INTRODUCTION AND SELECTION OF LAND USE OPTIONS

This SEA is being undertaken in a social context characterised by a lack of development, institutional capacity constraints, a complex institutional environment, poor social and other infrastructure and a population with one of the lowest Human Development Indexes in the country, indicating that many people live in poverty. The natural environment is characterised by a favourable climate, complex and rugged landscapes, areas of great scenic and biodiversity value and the relative availability of natural resources such as water, soil, grasslands and indigenous forests. This environment therefore offers both opportunities and constraints to development, including new afforestation projects. An important task in this SEA is to identify land uses which optimise the opportunities whilst being mindful of the constraints.

A number of land use options are considered and described in this chapter, with forestry potential described in chapter 3. However, it is important to bear in mind that only a realistic number of options can be evaluated. Any analysis must in the first instance take place at a landscape level in order to screen out options which may not require further investigation. To place this description of land use options in context, we need to be reminded of the objectives of this SEA, best achieved by drawing attention to the vision:

“To assist in the alleviation of poverty in the rural areas of Water Management Area 12 in the Eastern Cape by investigating sustainable land use options that ensure equitable access to natural resources, and most especially water, with an emphasis on forestry development where appropriate and acceptable.”

The economy of the Eastern Cape is driven by a combination of agriculture, forestry, industry and tourism. Government administration, educational institutions and a growing service sector also add to the regional economy. Within Water Management Area 12, agriculture is a significant economic activity including grazing of large and small livestock and cultivation (both commercial and subsistence) of mostly dry-land crops such as maize. Overall, commercial agriculture is limited in this portion of the Eastern Cape by a number of confounding factors. However, subsistence level production of food staples such as maize and meat is an important component of local livelihoods and a food security issue. During the course of the initial investigations, which included stakeholder engagement, a review of existing information, in particular the Integrated Development Plans (IDPs), and expert opinion, the following land use intervention options were generated:

- Forestry at a large scale (commercial and wood lot) (Not Scored).
- Dry-land agriculture at a large scale (maize).
- Grazing at a large scale (small and large stock).
- Commercial dairy or poultry operations, which are site specific.
- Tourism (nature-based and commercial) / Conservation, which are site specific.
- Tea plantations, which are site specific.
- Jatropha, which is site specific.
- Sugar at a large scale.

- Commercial scale fruit and vegetable production, which are site specific.
- Horticultural products, which are site specific.
- Commercial / Industrial development, which are site specific.
- Status quo (natural resource utilisation levels).

In accordance with good SEA practice, the identification, review and approval of various land use alternatives to the proposed activity (in this case forestry development) is one of the most important products of the SEA process. Therefore the consultant team developed a systematic and objective methodology to review, screen and select only those land use options that are considered viable and sustainable within the context of this study and that have the potential to compete with new forestry for land and other resources (i.e. water, labour, capital, etc). Specifically, within areas identified as suitable for afforestation, other potentially viable land use alternatives must be given equal evaluation and consideration. This process will avoid the undue “opportunity cost” of selecting an afforestation land use at the expense of other uses that may be more economically, socially and/or environmentally acceptable.

Based on this rationale, the above list was rationalised by using evaluation criteria biased towards those land uses that may compete with afforestation projects for land and other resources based on having a similar scale, location and capital requirements. As the focus of this SEA is to identify predominantly commercially based development interventions that will benefit local communities and alleviate poverty (see Figure 2.1 below), the following land uses were selected to receive further consideration in the SEA and are described further in following sections:

- Dry-land agriculture (maize)
- Grazing (small and large stock)
- Conservation-based tourism
- Status quo (use of natural resources at subsistence utilisation levels)
- Forestry

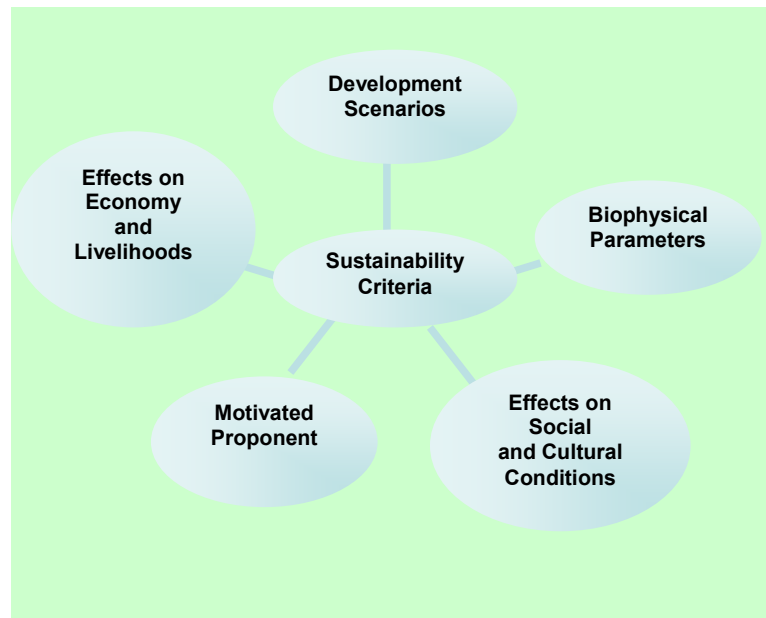


Figure 2.1: Land Use Sustainability Criteria

2.2 LAND USE OPTIONS EXCLUDED FROM FURTHER INVESTIGATION

A brief discussion on the evaluation of these land use options is provided below, and further details will be presented in the SEA Report. Stakeholders are encouraged to comment on the list of land use options, and to suggest other options which may be viable and should be investigated in the SEA.

Jatropha plantations show much promise given the potentially favourable growing conditions in the Eastern Cape and the potential diversity of products obtained from the crops. It is new to South Africa and is primarily grown for oil (biodiesel) production but is also reported to have medicinal properties. Expected tonnages in the 800-1 500 rainfall conditions are likely to be around 4 tonnes of oil per hectare. This makes the option marginal at best, with irrigation required to increase yields to above 6 tonnes of oil per hectare (Hallows 2005). However, no serious private or public sector motivation has been presented to initiate growing schemes and there are no examples of successful models or demonstration projects in the region from which to gain knowledge.

Horticultural products are not grown in significant quantities in the study area. This is likely the result of poor access to markets, lack of infrastructure and a poor understanding of the potential benefits of micro-enterprise development. Substantial increases in tourism may generate more market opportunities for small scale projects within the study area.

Sugar is grown in substantial volumes in neighbouring KwaZulu-Natal Province, with a small area dedicated to sugarcane in the area around Port Edward. According to biological productivity models (University of Natal), portions of the Focus Area near Port Edward are favourable for sugar production. However, very little evidence exists of private or institutional sector interests for significant expansion in the region and growing conditions are not suitable within the larger WMA 12.

Industrial development is constrained by the lack of urbanised areas, infrastructure and low population density, rendering the study area as a low possibility for substantial commercial / industrial type development. New development projects are not likely to occupy large tracts of land that would otherwise be suitable for the other selected land use alternatives.

Tea plantations are reported to have potential for continued economic viability, especially the Magwa Tea Estate located in the Lambasi region (approximately 1 200 ha, Hosking *et al.* 2004). Favourable growing conditions exist in the Focus Area. The ability of the industry to remain viable is considered good, but substantial expansion into the region and/or competition against other alternative land uses is questionable.

Large scale commercial fruit and vegetable production is not seen as a major land use alternative. Distance to market, poor infrastructure, high capital costs of irrigation and lack of existing operations are the primary disadvantages.

Dairy and poultry operations have been supported in the past by the Community Production Centre (CPC) with some success. However, the distance to substantial markets and lack of infrastructure are seen as disadvantages to further development. The region could potentially support a small dairy and poultry industry but these would not occupy a large land area and therefore not conflict with new afforestation on a regional basis.

2.3 EXISTING LAND USES AND LIVELIHOODS

Because the boundaries of WMA 12 were defined on a catchment basis, it encompasses a number of different socio-political regions with their own history, socio-economic characteristics and land uses. These regions include most of the former Transkei, some southwestern portions of the former Ciskei, the former Border Corridor (between Ciskei and Transkei) and a few small portions of KwaZulu-Natal (KZN) around Umzimkhulu and Port Edward. It is important to understand this socio-political context to appreciate existing land use patterns and to be able to interpret and understand the issues around current and alternative commercial forms of land use.

The former Border Corridor and the portions of KZN around Umzimkhulu and Port Edward were, during the apartheid era, part of the white RSA. Most of the land in these areas is owned and used by commercial farmers (mostly white), with some small commercial service towns interspersed. In the Border Corridor area, farming is of a mixed nature with a strong growth in game farming over the last 10 years. In the KZN areas, there is considerable commercial farming of sugarcane and forestry. The portions along the coast are also intensively used for private residential, urban and tourism purposes. Within these privately owned commercial farming areas there are some small parcels of rural land where the land is used for residential and agricultural purposes under communal forms of tenure. These communal areas experienced exceptionally rapid population growth during the colonial and apartheid periods due to the widespread and prolonged process of commercial farmers evicting surplus labour, which was further exacerbated by State driven forced removals from white areas. The communal lands were also administered separately to the surrounding commercial farming areas by the South African Development Trust.

The former Ciskei and Transkei, on the other hand, are former South African homelands where most land is held under a variety of informal (by western standards) communal land tenure arrangements. In the rural and semi-urban areas, households have access to individual residential and arable plots (although the latter are on the decline due to a shortage of land) and communal grazing lands. Agricultural production in these areas is very low in comparison to white commercial farming areas, and production for the market is negligible. Most production is being consumed by the producers and their dependents. However, few if any rural households subsist off their land resulting in a substantial dependence on off-farm earnings from state grants, locally employed people and remittances from urban workers. These rural populations rely on a number of weakly developed small towns for access to food supplies, clothing and other basic necessities and goods, as well as basic medical and other services and access to transport networks to the major urban centres. The main positive economic developments that have occurred in this area have been the renewed growth in the tourism sector, which is largely focused along the Wild Coast, and various public works and other government poverty alleviation projects that have provided some communities with temporary local job opportunities. Unfortunately, these positive developments have not been sufficient to address the employment needs of the majority of the population. Figure 2.2 below identifies the population of the Contextual Study Area and indicates a rather dispersed population scattered across the landscape with minor concentrations around urban settlements.

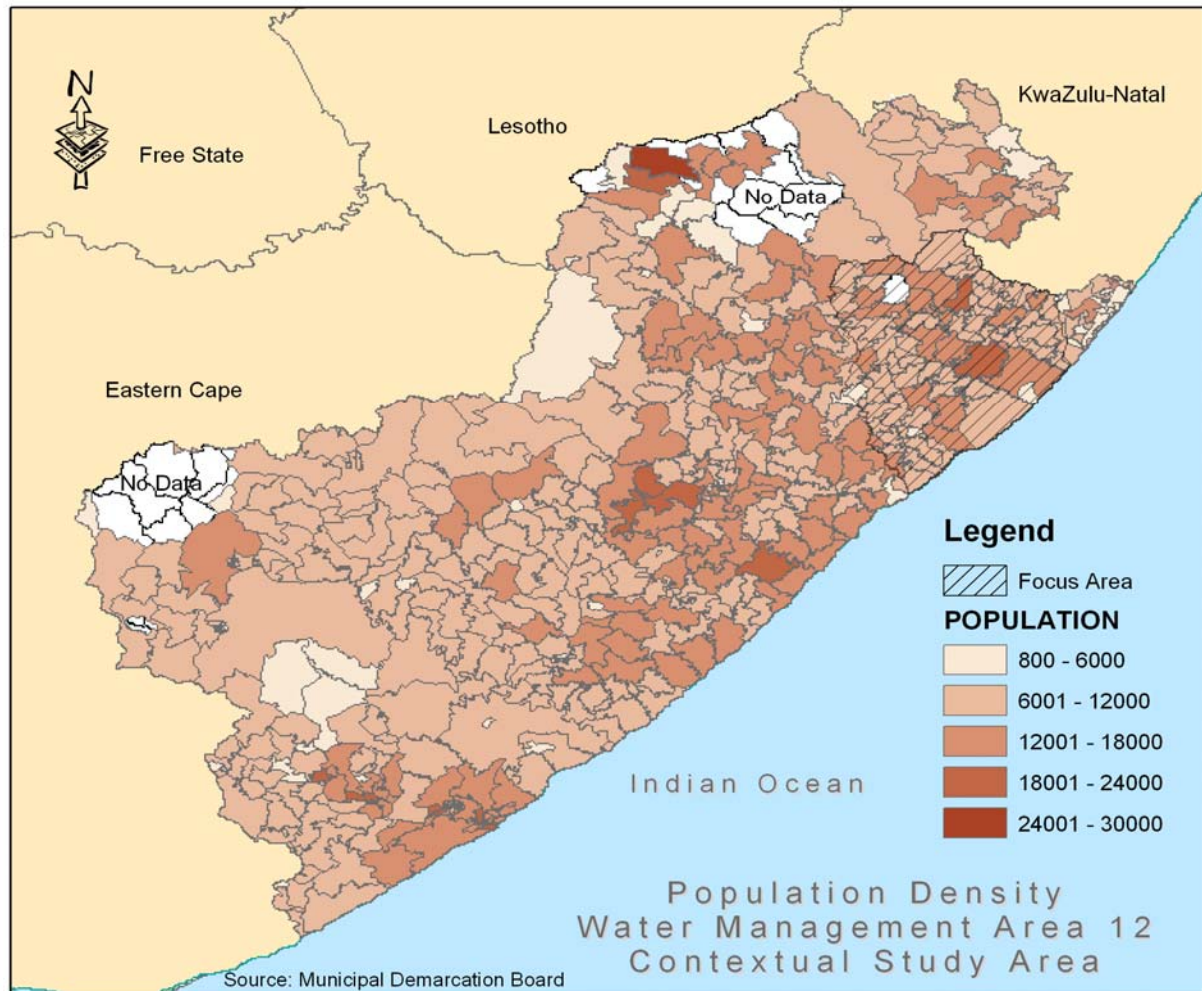


Figure 2.2: Population Map of Contextual Study Area

2.4 COMMERCIAL MAIZE PRODUCTION

The challenge facing this SEA is the development of land use options in the absence of any detailed information, especially when the SEA covers an extremely large area. For this reason, alternative land use options remain fairly conceptual, but information on the suitability of the area for certain crops is available, for example, the *South African Atlas of Agrohydrology and Climatology* (Schulze 1997). For the purposes of this SEA, commercial crop production is restricted to dry-land (i.e. no irrigation) growing of maize. According to Hosking *et al.* (2004), the maize and bean schemes instituted by the Community Production Centres (CPC) have met with moderate success but require longer term commitment to increase their chances of surviving and creating downstream economic opportunities. Furthermore, the most common and extensive land use development taking place in the communal rural areas are the “Massive Maize Production Projects”. This programme was started by the Department of Agriculture in 2003 but has been taken over by the District and Local Municipalities in many parts of the former Transkei. The initial proposal was to encourage the production of maize in high agro-potential portions of the communal areas of the Eastern Cape by providing farmers with subsidised access to services (ploughing, etc.) and inputs (fertilisers, seeds, etc.). Interested farmers were initially required to participate in the project for five years (later reduced to three). Blocks of at least 50ha each are made available

for each project. The farmers on whose land the maize is to be cultivated organise themselves and elect a committee to represent them and manage the project. The government, through the use of service providers, then provides the farmers with services and inputs. The farmers are required to make their labour available for cultivation work and to sell some of their maize each year to repay a portion of the costs of the inputs and services. The money paid by the farmers is then returned to them at the end of the project so that they can have the necessary capital/savings to continue with the project on their own. As with any commercial operation, the major challenges facing the success of the operation relate to both natural and socio-economic considerations, such as the suitability of topography, climate and soil, the availability of agricultural requisites and extension services, suitable infrastructure (especially roads), availability of markets, training and land tenure.

Even with the Massive Maize Programme, the level of commercial agriculture practised within the study area is still extremely low. This can be attributed to a number of reasons, including economic ones. The lack of agricultural requisites such as fertilizer, quality seed, pesticides and good advice from extension services are probably the most essential features of production not available locally. This is compounded by a lack of available credit (induced in part by the communal land system).

2.5 COMMERCIAL LIVESTOCK GRAZING

Livestock farming is a productive activity that farmers in the communal areas have been engaged in for centuries. They also engaged in considerable trade in livestock and their products for an extended period during the 19th and early 20th centuries, but today very few livestock or livestock products are traded in communal areas. Livestock ownership is also not evenly distributed throughout the population, with over 50% of households having no livestock, another +/- 30% having only a few head of livestock and the remaining 20% having larger numbers of livestock. This unequal ownership structure is a contributing factor to the massive poverty and land scarcity for a majority of the existing population.

Stock grazing is considered a viable development alternative for the study area based on the extent of current practice and potential competition for resources with other land use alternatives. It is culturally acceptable and promoted. However, as mentioned, livestock ownership is skewed, and the capacity of land resources to simultaneously support large stock grazing and other land uses, e.g., afforestation requires additional assessment.

Furthermore, research in the former Ciskei (Ainslie, current) indicates that in areas where communal lands lie adjacent to commercial farming areas, there is a considerable amount of movement and trade of livestock between these areas. Government efforts to increase opportunities for livestock sales have also been favourably received and resulted in increasing numbers of livestock being made available for sale in the former Ciskei. This suggests that access to markets and the processing of products is a major constraint to commercial livestock farming in the communal areas. Unfortunately, however, very little effort has been invested in such ventures to date. Research in the OR Tambo District indicated that there are not many livestock projects being initiated. Those that do exist are small scale projects focusing on improving the quality and marketing of the animals or their products. For example, there is a wool marketing project at Bizana which is being assisted by the Department of Agriculture. There is also a goat project which is managed by the Ntinga Development Agency in OR Tambo. There have also been more ambitious proposals, for example a dairy project in the Lambasi area. However, lack of commercial proponents, problems with securing funding and developing markets have undermined the viability of these proposals.

2.6 TOURISM (NATURE-BASED AND COMMERCIAL) / CONSERVATION

The Eastern Cape (EC) is the second largest province in the country with a diverse landscape and over 800 kilometres of Indian Ocean coastline. It is an attractive setting for tourism, in particular ‘eco-tourism’ type developments that capitalise on the rural setting and unique fauna and flora of the region. The Eastern Cape Tourism Master Plan identifies responsibly developed, smaller-scale natural heritage tourism (also referred to as eco-tourism) as a key area of focus for the region. Other potential growth areas for the Province include expansion of national parks, nature reserves, cultural tourism, agri-tourism, special events and conference tourism.

Tourism is already a major economic driver for the region with over 5.3 million trips to the Wild Coast / Transkei / Ciskei region in the 2000 / 2001 season. The total value of tourism to the EC in 2005 is estimated to be R8.7 billion growing to R10.0 billion in 2006. Direct employment as a result of tourism in the EC is estimated at 36 355 jobs in 2005.

The WMA 12 Contextual Study Area contains portions of the Amotole, Alfred Nzo, OR Tambo, Chris Hani and Ukhahlamba Districts (see Figure 1.2). It also includes the former homelands of the Transkei and Ciskei. A number of regional tourism nodes exist along the coast (from west to east), including Kidds Beach, East London (including Nahoon and Beacon Bay), Cintsa, Coffee Bay/Hole-in-the-Wall, Port St Johns, Mkambati, Hluleka and Dwesa nature reserves, Port Edward and Port Shepstone. Inland tourism nodes occur at Hogsback and in the regional business centres of East London, King William’s Town (Buffalo City Municipality), Bisho, Umtata and Kokstad. The following is a brief description of each of the six tourism districts within the Contextual Study Area as described by the Eastern Cape Tourism Master Plan (Eastern Cape Tourism Board 2003).

Amatole District

The Amatole District contains the greatest concentration of frontier history and enjoys an attractive variety of flora and fauna. Tourism access is via the coastal port of East London and the Sunshine Route along the coast from Port Elizabeth. These tourism development zones include the coastal area to the west of East London (known as the Sunshine Coast); the central region towards Stutterheim and Cathcart (the Friendly N6); the Amathola Mountain Escape linking Hogsback with Alice and Fort Beaufort; and finally the regions along the Strandloper Trail, Wild Coast and inland between Butterworth and the Mbashe River (Collywobbles).

OR Tambo District

The OR Tambo District is a developing rural tourism region, famous for its pristine and unspoilt Wild Coast. This is one of the most undisturbed coastlines on the sub-continent, having endless white sandy beaches, a rugged coastline and unique coastal nature reserves. It is a magnificent area for the outdoor enthusiast with special reference to game fishing (more than 800 fish species). A poor road infrastructure is a limiting factor for sedan vehicles but appeals to 4x4 enthusiasts. The unique Xhosa culture of this region, associated with the liberation struggle, heritage, and the national icons of past and present State Presidents and political leaders, renders the district in a strong position to develop significant tourism products in the future. Most tourist flows comprise domestic family groups and small adventure tours utilising the N2 as the main access route. Umtata serves as the regional

gateway with road and air links. Lusikisiki and Bizana are staging posts, with Port St Johns being an emerging distribution point and staging post. Undoubtedly, the pristine natural beauty and unspoilt coastline is what appeals to the eco-tourist. Hole-in-the-Wall is a unique physical feature and the wild coastline is strewn with famous shipwrecks and strandloper caves. A spectacular area for hiking and horse trails, the area is traversed by major river systems, which flow through scenic gorges. Important cultural and heritage tourism products are being developed in Qunu, Mvezo and the Nelson Mandela Museum in Umtata.

Chris Hani District

The Chris Hani District is a developing tourism area, which is located on national road links stretching from the coast to the central regions of South Africa. This district is very strong in agricultural tourism including farm stays and hunting. Accommodation comprises mainly guesthouses and B&Bs. The major tourist flows tend to involve domestic tourists who travel by road between the main distribution points and staging posts of Queenstown, Middleburg, Cradock and Elliot. The Friendly N6 Highway is a relatively new route passing through the district in a north/south direction. Unique features of the district are as an outdoor activity area with special reference to hunting and farm holidays. The area has potential mainly in agricultural tourism pursuits and is an excellent area for plains game viewing, bird watching, canoeing and horse riding. These attributes have been combined into a District Tourism Spatial Development Plan.

Alfred Nzo District

This district is mainly a rural area and perhaps the least developed region for tourism. However, it has great potential for community-based tourism and in this regard an anchor project could stimulate tourism growth in the region, e.g. the Maluti Ukhahlamba Hiking and Horse Trail, which involves 11 local villages and the proposed Transfrontier Park between KwaZulu-Natal, Lesotho, Alfred Nzo and Ukhahlamba districts. It is scenically a very beautiful area with rolling hills and green valleys set against a spectacular backdrop of the Drakensberg Mountains. The potential products include eco-tourism, cultural tourism, adventure tourism, and health and fitness tourism. Tourism development zones are mainly concentrated in the mountainous region and to a smaller extent, around Mount Frere and Mt Ayliff. The Alfred Nzo District is still a relatively undeveloped area and the peaceful rural environment, with pretty little towns set against the backdrop of the Drakensberg Mountains, is at this stage the unique selling feature. There is also an opportunity to experience traditional Xhosa rural culture.

Ukhahlamba District

The Ukhahlamba District is a developing tourism region and is an area of great scenic beauty with high mountains, clear streams and warm water spas. It has the only mountain ski resort in South Africa and is renowned for hunting and fly-fishing adventures. The area is steeped in Anglo Boer history, Xhosa and Sesotho culture, with some outstanding rock art sites. The district is mainly an agricultural area with hospitable farm stays, guesthouses and B&Bs. Main tourist flows travel by road along the N6 between Bloemfontein and East London, with Aliwal North playing the role of a provincial and district gateway to the region. Distribution points and staging posts are found in Burgersdorp, Barkley East, Lady Grey, Maclear and Rhodes.

Summary

Significant constraints to tourism development in the region have been identified in the Tourism Master Plan (TMP). These include a lack of infrastructure, access and marketing. An infrastructure audit undertaken in 1997 identified that infrastructure is primarily a constraint in the undeveloped portions of the region, and access is definitely a constraint to tourism growth. The poor road infrastructure in some parts of the Province and the add-on cost of domestic airfares makes it difficult for the Eastern Cape to compete with provinces such as Gauteng and the Western Cape, both of which have the advantages of direct flights into international airports. Indecision on the proposed N2 Toll Road may discourage investment while other more progressive improvements in the road infrastructure should definitely increase the traffic flow in certain areas. Improvements to the existing road network (including the construction of new roads) may lead to substantial tourism growth in the region with the resultant economic benefits. An inadequate marketing budget is a constraint to tourism growth because it makes it difficult to achieve the desired results. The TMP suggests that a marketing budget of R20 million would be ideal. It also suggests a formula for such a budget based on effective partnerships, cooperative marketing actions and joint venture programmes.

3 INITIAL ASSESSMENT OF THE POTENTIAL FOR SUSTAINABLE AFFORESTATION IN WMA 12

3.1 INTRODUCTION

The Eastern Cape is one of South Africa's poorest provinces and remains urgently in need of economic growth and development. The rural areas in the study area are distinctly underdeveloped when compared to areas to the north and south, despite suitability for certain types of commercial agriculture and forestry. Water is one commodity thought to still be in reasonable abundance in the eastern part of the Province and few of these catchments are considered stressed (NWRS 2003), largely because of the lack of any substantial development, either in agriculture, forestry or industry. Water resources themselves are also largely undeveloped with few large dams or transfer schemes in the area.

Whilst there is already significant commercial forestry in the Eastern Cape, there is still a lot of unrealised potential. The areas that are suitable for commercial forestry are distributed throughout the study area, with certain areas showing potential for relatively large commercial management blocks. If done properly, forestry could be introduced to rural areas in ways that bring development to the rural poor, offering poverty alleviation opportunities in areas considered remote. The Wild Coast Strategic Development Initiative (SDI) of 1997 (Department of Trade and Industry) identified forestry as a core activity that could inject economic development into the Province.

The forestry management area in South Africa is approximately 1.37 million hectares with a capacity to supply 22.0 million m³ of roundwood per annum. According to projections by the WFSP forestry programme (2004), demand for roundwood is likely to outstrip supply by just over 14 million m³ p.a. in 25 years. To balance this supply deficit, an additional 775 000 ha of afforestation (as one option) is needed in the country. Other options could include importing additional supply. The extent to which the Eastern Cape can and should accommodate a portion of this shortfall is the subject of this SEA.

3.2 FORESTRY IN THE EASTERN CAPE

The commercial forestry area in the Eastern Cape currently covers approximately 169 000 ha and represents 13% of South Africa's plantation resource. Forestry and timber products contribute R300 million a year to the national gross domestic product (GDP), and the forestry sector employs 8 700 people with 88 000 dependents. Forestry areas are predominantly softwood (pine) with 151 000 ha grown for commercial purposes. Nearly 90% of these pine plantations are operated by the private sector, with the balance by the Department of Water Affairs and Forestry. The remaining 18 000 ha are hardwood plantations, mostly timber grown for use by local communities.

Current timber yields in the Province do not reflect the full yield potential of the existing plantations, and there is potential for significantly greater volumes to be processed. The commercial plantations have the potential to produce in excess of 2 million cubic metres per annum compared with current volumes of less than 1 million. Reasons for this include:

- A major new plantation, North East Cape Forests (35 000 ha), is not yet mature and is only now beginning to produce timber.
- Large areas are unplanted or sub-optimal due to fire damage and operational backlogs.

Eighty-five percent of the timber produced in the Province is processed by five large sawmills, mainly for the construction market. The remainder is processed as poles or industrial wood for pulpwood or chipboard. According the Department of Water Affairs and Forestry, there are as many as 65 small sawmillers which often process high value timber in marginal operations without timber supply security.

At the present time there are a number of interested parties engaged in discussions with the owners and operators of North East Cape Forests about the maturing resource against a backdrop of forestry industrial investment opportunities ranging from sawmilling to chipboard manufacture.

The opportunities for additional forestry development within the Province are significant. Studies for the Wild Coast SDI estimated that 120 000 hectares of new plantation could probably be established in the Province, and in particular in the former Transkei, which covers most of the SEA study area. Momentum for new afforestation is building within a number of government initiatives – Department of Water Affairs and Forestry, Department of Land Affairs, Eastern Cape Development Corporation and the Eastern Cape Government – as well as the private sector.

3.3 STRATEGIC OPPORTUNITIES AND CONSTRAINTS ON NEW AFFORESTATION

As an example of the economic benefits of forestry, new afforestation of 60 000 hectares (half of the SDI potential estimate) could produce an annual 720 000 cubic metres of timber, generate R150 million in annual sales proceeds and create between 2 000 and 3 000 new jobs. This is very significant given the low economic base that exists. Depending on the location, fragmentation and infrastructural constraints, such an area could present significant downstream opportunities and associated multiplier benefits over time.

The 60 000 ha is equivalent to 35% of the existing forestry in the Province, significant when compared to the relative potential in other provinces. Key explanations for the fact that this development has not yet taken place are:

- Undeveloped forest products markets;
- Investor caution due to land tenure system and ownership issues;
- Lengthy licensing procedures;
- Relatively fragmented nature of potential forestry blocks;
- Lack of awareness and acceptance of forestry as preferential land use; and
- Limited promotion of forestry as a land use option.

The SEA should provide information that will contribute to the resolution of some of these issues such as:

- ❖ Identification of new potential afforestation areas.
- ❖ With water and environmental considerations being the key factors that affect authorisation/licence application responses, the SEA will quantify water and environmental constraints at a level that will enable authorities to contextualise authorisation/licensing decisions for individual applications. This should assist to further streamline the process.
- ❖ Existing and potential timber processing operations will be identified and described in relation to the areas with potential for new afforestation.
- ❖ Acknowledging the issues that arise for commercial forestry as a result of the land tenure system (which is based on a traditional communal system), applicable operational models will be developed.
- ❖ Forestry in South Africa has tended to focus on the establishment of large afforestation blocks with obvious economies of scale and management benefits. A challenge for the Eastern Cape with its fragmented landscapes and communal land uses will be to develop systems that are suited to this feature. The forestry models that are developed during the SEA process will take account of this.
- ❖ Lack of awareness and acceptance of forestry as a land use option, and the willingness of leaders to promote and support it, is clearly an issue that will emerge as a fatal flaw if not understood and addressed. The public participation process will try to understand the issues and formulate remedial responses. In order to enable a proper understanding of forestry, the economic costs and benefits and how they compare with other land uses will be formulated during the SEA process.

3.4 CLASSIFICATION OF AREAS ACCORDING TO THEIR FORESTRY POTENTIAL

In an effort to identify the areas in the WMA 12 that are suitable for commercial forestry, the following approach was utilised using various geographic information system (GIS) techniques (Howard 2005). The following GIS layers were extracted from their original sources or created and prepared for WMA 12:

- i. Mean annual precipitation (MAP) 1 minute grid values – Schulze (2004)
- ii. Mean annual temperature (MAT) 1 minute grid values – Schulze (2004)
- iii. Land type information (CES/ARC 2004)
- iv. Roads (Municipal Demarcation Board 2004)
- v. Existing and future forest product processing plants
- vi. Working plan data of various forestry plantations located in the study area

An index value of the estimated potential timber yield was determined for each GIS polygon and four classes identified. The polygons varied in size according to their biophysical characteristics, as the unique value of the climatic and soil variables were determined through a process of intersection of the various GIS overlays. The index values represent the expected response (i.e. their growth rate and yield) of commercial tree species to the climatic parameters of mean annual rainfall and mean annual temperature and the interaction with soil types and their depth. The classes are the following:

1. **Not suitable** – Commercial plantations are not recommended, planted trees are likely to succumb to the regular droughts that are experienced in these areas. There may be small, occasional localised areas where selected, drought-hardy species of trees could be grown for subsistence or shelter purposes, but not for commercial purposes.
2. **Low potential** – Commercial plantations are not recommended but there may be localised areas where small woodlots may be established, particularly for the production of poles and firewood for subsistence use.
3. **Moderate potential** – Commercial plantations could be established but yields will be low to moderate. Yields of 8-15 m³/ha/a for pine, 22 m³/ha/a for gum and 8 m³/ha/a for wattle could be expected using modern silviculture practices, appropriate siting and genetically improved plant material.
4. **Good potential** – Commercial plantations are recommended and yields will be productive. Yields of 11-22 m³/ha/a for pine, 35 m³/ha/a for gum and 10 m³/ha/a for wattle could be expected using modern silviculture practices, appropriate siting and genetically improved plant material.

The index values of the estimated potential timber yield were adjusted in order to take cognisance of the economic implications of the spatial location of the primary roads, and both the existing and potential location of processing plants. East London was added as a potential site for the development of an export or chipping facility and Butterworth was added as a future location of a pole preservation plant. The index values of those polygons that were within 10km of primary roads and/or within 50km of an existing or future processing facility were increased by 7.5 points, which coincided with 0.5 of a class interval. This had the effect of indicating a higher potential for forestry for those areas in close proximity to a main road or a processing plant and therefore taking some cognisance of the economic implications of the cost of transporting forest products from the plantation to the processing plants. This adjustment is crude and could be improved upon at a later stage should it be necessary.

The adjusted index values have been incorporated into GIS coverage and presented on a forestry potential map for the area (Figure 3.1). The results indicate that most of the areas with good potential are found in the north-eastern half of WMA 12, along the foothills of the Drakensberg and along the coastline. In the south-western part of WMA 12 sites with good potential are restricted to the area around Dimbaza and Stutterheim. Catchments with a large proportion of their area having good forestry potential are as follows:

Table 3.1: Catchments with “Good” forestry potential

Catchments		
Tertiary	Quaternary	Region
T51	H	North-east
T52	E, F & G	
T40	A & B	
T32	F, G & H	
T62	H & J	Along the coast
T33	B	Along the Drakensberg foothills
T34	A, B, E & F	
T35	A, B, C & F	
S50	B	
T20	A	North-west of Umtata in the centre of WMA 12
T11	C, E & F	
T12	A & F	
R10	A, B & F	Stutterheim area
R20	A & C	

These areas define spatially where further strategic investigations of land use options will need to be undertaken during the SEA. The areas of “good” and “moderate” gross potential for commercial afforestation represented on Figure 3.1 equate to approximately 3.1 million ha. This is far above the 120 000 ha SDI estimate of afforestation potential, as it does not consider the following constraints to forestry:

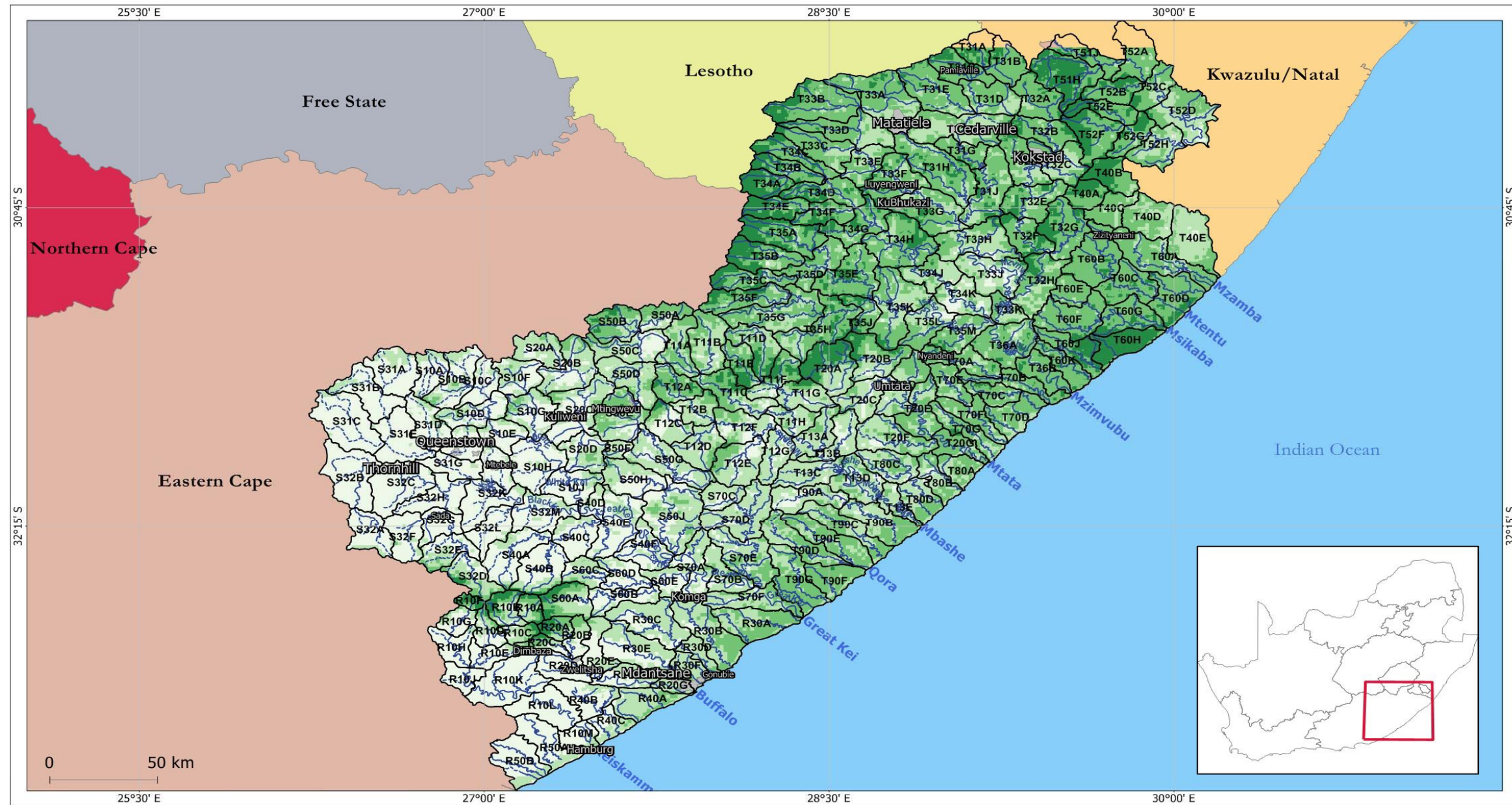
Site specific constraints, such as soil type and depth, slope, proximity of water bodies, access etc. Even in portions of land suitable for forestry, the industry norm is that only about 50% of the land can effectively be planted with trees.

Environmental constraints, including *inter alia* sensitive habitats; important areas for conservation of biodiversity; available water resources; visually sensitive landscapes; and sites more suitable from a biophysical perspective for alternative land uses.

Social constraints, including the presence of settlements; the current land used by local people; the need for relatively large parcels of land by communities to accommodate for the multiple land use strategy that is important for livelihood strategies; and the willingness of communities to give up portions of land to grow trees that will only give a return some time into the future.

Economic constraints, such as proximity to markets, availability of infrastructure, especially roads, transport and other operating costs which may be high in the region, the willingness of the private forestry sector to invest in the area and the areas under existing forestry.



Thus, although Figure 3.1 demonstrates the region’s potential capacity for forestry, we anticipate that if land is excluded to address the limitations above (and this is one of the primary objectives of the SEA), it is likely that only 10% of the total area identified as suitable will be planted. This conservative estimate of 310 000 ha is more realistic, but the SEA seeks to refine it through the identification of those portions of land in the WMA 12 area that are not suitable for commercial afforestation due to biodiversity, water and/or socio-economic constraints. Thus, this initial estimate may increase or decrease as the SEA process unfolds.



Title: **Forestry Potential - WMA12** Project: **WMA12 SEA**

Legend:

S20A Quaternary Catchments Numbers	Catchments	Rivers	Forestry Potential
Quaternary Catchments	Perennial	Perennial	Not Suitable
Urban Areas	Non Perennial	Non Perennial	Low
	Mbhashe Stream Names	Stream Names	Moderate
			Good

For:  By: 

Assembled by: Henry Holland
 Date Created: 11 March 2005
 Date Modified: 11 March 2005
 File: wma12ForestryPotential.map
 Layout: lvtForestryPotentialA3

Version: Draft
 Projection: Latitude / Longitude
 Datum: World Geodetic 1984 (WG)
 Paper size: A3 Landscape

4 KEY STAKEHOLDER ISSUES TO BE INVESTIGATED IN THE SEA

4.1 INTRODUCTION

This chapter of the Scoping Report provides a narrative of the issues and concerns raised by various stakeholders during the scoping phase of the SEA. These issues are discussed according to four themes. These themes are investigated in more detail during the situational assessment and strategic assessment phases of the SEA by means of various specialist investigations, described more fully in the next chapter. The first three categories are based on the three components of sustainability, and the fourth is specific to this SEA, due to its importance:

- Socio-economic and institutional issues
- Environmental or biophysical issues
- Economic issues, relating mainly to forestry
- Water resources issues

What follows is a narrative of the issues, followed by a summary table of all issues at the end of this chapter.

4.2 SOCIO-ECONOMIC AND INSTITUTIONAL ISSUES

4.2.1 ISSUES AND CONCERNS AT THE LOCAL AND COMMUNITY LEVEL

Changes in land use as a result of any development initiatives will affect rural households differently, depending on their livelihood strategies and the extent to which they are able to benefit from the new development. In many existing cases, conflicts over land use tend to be most severe on state land from which people were removed during the colonial and apartheid eras and where land claims remain unresolved. These affect the former agricultural parastatal lands such as Magwa, Lambasi, Mkambati, TRACOR fields and others. However, they are also pertinent to some of the State forest plantations. It is clear in many of these cases that neighbouring communities and land claimants see very clearly the link between obtaining ownership of the land and accessing benefits from potential development projects (Kepe 2001). Consequently, there have been many disputes between various local interested and affected parties over these state lands, creating obstacles to their further development. Complicating the issue are the different aspirations of these various interest groups and competing ideas about how to develop these lands. There have been tensions between those wanting to reclaim and resettle these lands for subsistence purposes and those wanting to retain them as is and use them for the commercial growing of trees or other agricultural ventures. The choice of how much land to make available for various types of commercial production has also been a difficult issue to resolve.

The majority of affected parties in the Focus and Umzimkhulu area are supportive of land use developments, including forest initiatives, and this is likely to be the case elsewhere. The main reason for this is the desperate need for jobs and income earning opportunities. However, there is also evidence that there has been some reticence on the part of many rural residents to participate in such new and foreign land use developments. There is also a desire to maintain a variety of options for meeting livelihood strategies. No single land use should dominate the landscape, especially if it eliminates the opportunities for other strategies to co-exist.

One concern raised by affected parties, especially where government departments were involved, is that the process of getting approval and starting the projects takes too long. This concern was also expressed by the forestry sector representatives during interviews. In general, rural residents appear to be anxious for development and frustrated about the lack of opportunities and slow progress. In some cases, affected parties appear to have not raised their concerns about proposals, in the interests of making progress and getting the project started.

Amongst those who had already initiated forestry projects, there was a real concern about the lack of government assistance with support services such as improved road infrastructure, training, etc. (a concern echoed by the forestry sector). There is a critical need for government to integrate and coordinate the activities of various governmental departments to ensure the success of such developments. The upgrading of road infrastructure is particularly important for forestry as difficulties in accessing forests at harvest time could jeopardise the viability of developments.

Lack of experience with marketing and making business decisions was also evident and appears to be jeopardising the future of some projects. Most projects (especially the more long-term activities like forestry) had not yet worked out how they would share and use the income from the sale of the crop. Maize projects also suffer from this – but their main attraction is the possibility of improving food supplies and being employed on the project. The possibility of earning income from the sale of maize is not the main attraction and people see few opportunities for this. In this case, far too little effort has been invested (by participants, development agents and funders) in addressing the issue of finding and accessing markets. In the cases where government has made huge financial investments in agricultural projects (i.e. TRACOR estates), the local affected parties often expect and lobby for such extensive support/subsidisation to continue. Those affected parties who were aware of the availability of funding from the Department of Land Affairs took this opportunity. One of the major benefits of doing so was to reduce their dependence on loans and to increase the amount of money that they could use for job creation.

The support and participation of the majority of local residents was seen by affected parties as critical to the success of a forestry project, particularly given the potential for arson attacks from disgruntled neighbours excluded from the project. This view was shared by commercial foresters as a result of difficulties they experienced in obtaining insurance for trees planted in communal areas. In Umzimkhulu, the participation of the whole community and the sharing of employment opportunities with neighbours helped to reduce and eliminate the threat of fires in communal areas.

Frustration was also expressed by some affected parties about the difficulties of working with local municipalities. Concern was expressed over unexplained changes in policy and preference for supporting short-term poverty alleviation projects rather than long-term investments that would improve the sustainability of commercial developments. Decisions about how to spend money on development projects appear to be made on the basis of sharing the short-term proceeds as much as possible rather than increasing the long-term profitability and sustainability. Consequently, local municipal councils appear unwilling to make large investments in small but expensive or long-term projects. While there is much general sympathy with the short-term poverty alleviation approach amongst the general public, serious farmers find it very frustrating and welcome a more commercially viable approach.

4.2.2 ISSUES AND CONCERNS AT THE PROVINCIAL, DISTRICT AND LOCAL GOVERNMENT LEVELS

District Municipalities (DMs) are generally supportive of forestry projects even though most of those contacted were not practically involved in them. Of the DMs consulted, few had seriously considered the possibility of new afforestation developments, tending to focus more on the existing forests managed by DWAF. District Municipalities are more involved in poverty alleviation projects, especially the OR Tambo District Municipality.

Local Municipalities (LMs) were generally very concerned about alleviating poverty and attracting investment in local development projects, and tend to support most development projects. The attitudes of most local municipalities towards forestry initiatives are also positive but they see these initiatives as the responsibility of DWAF. Of the LMs consulted, few had seriously considered the possibility of new afforestation developments, tending to focus more on the existing forests managed by DWAF. Their major priorities are in service delivery and short-term poverty alleviation projects. However, they are also responsible for spatial development and land use planning. Unfortunately, few LMs have completed their planning processes yet and seem to have limited capacity in this area. Tribal Authorities (TA) present a challenge for local municipalities as they have an ex-officio status on the municipal councils. There is a tendency to feel the need to consult with the TAs whenever decisions regarding land use developments have to be taken. Their support for development projects is seen as important as they have a lot of influence at the village level. From interviews with communities we met with and from our meeting with Chief Lebenye of Maluti, many traditional authorities are supportive of these projects and some of them were involved in their initiation. However, there are some areas where there are tensions between the TAs and LMs that have made the process of initiating projects problematic.

There is some competition for land for other development projects in parts of the study area that are also suitable for forestry. These other commercial land uses are sugar and tea production (in limited areas), and possibly tourism and commercial agriculture. With respect to tea and sugar, conflicts are limited to the MAGWA and TRACOR estates respectively and exist largely because of previous developments rather than due to the active involvement of commercial proponents. In these cases problems with land claims need to be resolved before commercial partners can be expected to invest in these ventures. It is clear, however, that once the land issues are resolved, there is a distinct possibility that the area used for the production of tea and sugar may be expanded to some extent. This expansion may compete with the potential for new afforestation in these specific areas, but overall, will have little impact on the industry in the region due to their limited expansion potential.

4.3 ENVIRONMENTAL AND BIODIVERSITY ISSUES AND CONCERNS

Most of the land uses under investigation, with the possible exception of tourism/conservation are likely to raise similar issues, as they are all spatially extensive, result in the loss of ecological habitats, reduce biodiversity and have the potential to cause soil erosion. Thus, environmental issues from development activities, including new afforestation projects, can be summarised under the following broad categories.

- Loss of indigenous plant cover and habitat due to vegetation destruction.
- Release of alien and exotic species into the natural ecosystem.
- Reduced or altered stream flow patterns due to changes in the watershed hydrology.

- Increased risk of pollution from sediment and other point and non-point sources.
- Increased risk of erosion due to changes in surface hydrology.

DWAF recognises that forestry plantations transform significant areas of land and that any new afforestation should be located where it will have the least impact on biodiversity. The extent to which these impacts may occur is a function of the type and extent of development and the particular sensitivity of the area for which it is proposed. There is recognition that one of the fundamental constraints to new forestry is its cost to biodiversity and that we need to understand the value of this loss as fully as possible. Systematic Conservation Planning is a formal approach to assessing land in terms of its biological importance. The most important measure is biological diversity. The natural environment is valued in terms of its biodiversity, how much of that biodiversity has been lost, and the threats to that which remains. For instance, certain vegetation types within the Contextual and Focus Study Areas are well represented and additional development that is otherwise appropriately sited will not lead to a substantial decline in the resource. Obtaining these values presents a very useful tool allowing managers to quantify the impacts of any consequent land use change on the environment. At the same time it is possible to see which areas could perhaps be developed without significant impact. A Systematic Conservation Plan is seen as an essential tool in decision-making for forestry, but also for all forms of development which bring about land use change. A Systematic Conservation Planning process for the Wild Coast Project has been extended by DWAF to cover all of the Focus Study Area to assist in the completion of this SEA.

In order to objectively assess potential impacts from new development interventions, a protocol is being developed for the compilation of an Environmental Sensitivity Map. This protocol will identify areas that have a high degree of environmental sensitivity and are deserving of either *exclusion* from further development activities or a *precautionary* approach to permitting additional development to take place. The following is a brief description of each of these features, their recommended (or prescribed) protection status and where they occur within the study area.

□ ***Gazetted Conservation Areas***

These are formally protected parks and reserves, excluding state forests that have been mapped within the study areas. They include features such as national parks, provincial parks and reserves, wilderness areas, natural heritage areas and marine reserves. No national parks presently exist in the WMA, although there are plans to establish one along the Pondoland coastline. Other notable categories potentially affecting land use in the WMA include the potential Ramsar classification of a wetland at Ntsikeni, the declaration of a Marine Protected Area along part of the Pondoland coast and the identification of a number of provincial nature reserves as Important Bird Areas. The distribution and features of these areas will be discussed in the biophysical report for the SEA. For the purposes of this SEA, they are considered *Exclusionary*, wherein no additional development, with the possible exception of nature-based tourism, should be permitted.

□ ***Protected Vegetation***

Areas of *Protected Vegetation* include indigenous forests, such as those identified in the Forest Conservation Act of 1998 and wetlands (as identified on the NBI Vegetation and ENPAT land cover data sets). Wetlands include rivers, their floodplains, vleis, lakes, estuaries, inter-tidal areas and man-made features such as reservoirs, solar salt extraction works and oxidation ponds. Natural wetlands are relatively well-protected by legislation in South Africa. Depending on the environment and circumstances, this legislation includes the

Environment Conservation Act (Act No. 73 of 1989), the National Water Act (Act No. 36 of 1998) and the Marine Living Resources Act (Act No. 18 of 1998). The Pondoland Marine Protected Area provides protection for all areas below the high-water mark (including estuaries) between the Mzamba and Mzimvubu rivers. In addition, wetlands are also afforded protection by the nature reserves within the focus and contextual study areas (e.g. Dwesa, Cwebe, Hluleka, Silaka and Mkambati). Areas of Protected Vegetation are also protected by the Forest Conservation Act and the Environment Conservation Act. For the purposes of this SEA they are considered *Exclusionary* wherein no additional development should be permitted.

□ ***Areas of Importance for the Protection of Sensitive Vegetation Types***

The sandstones of the Natal Group underlie most of the coast and its immediate hinterland, within the Focus Area. The area underlain by these rocks can be equated with the Pondoland Centre of Endemism. The Pondoland Centre of Endemism comprises almost a third of the Focus Study Area along the coastal region stretching from Port Edward to Port St Johns and extending approximately 30km inland from the coast. It is part of the larger Maputoland-Pondoland Region (Van Wyk and Smith 2001), an area recognised as the second-most species rich floristic region in southern Africa after the Cape Floristic Region. For the purposes of this SEA, the Pondoland Centre of Endemism is treated as *Precautionary* for additional development.

□ ***Areas of Importance for Faunal Conservation***

The areas identified as important for the protection and conservation of faunal species may include sites such as breeding areas for birds, fly-ways and migratory routes, spawning, nesting or calving areas, important habitat including food-plants and areas of significant animal concentrations. However, this SEA has identified a significant shortage of published research and data on the occurrence of these species in the study area. Slightly more information is available for some species within the Pondoland Centre of Endemism. The Systematic Conservation Planning work being completed as part of this SEA should provide additional insight into areas that require further assessment or are deserving of additional protection measures.

□ ***Areas of Scenic Landscape***

The identification of a “scenic area” is subjective, but most observers would probably agree that the following are particularly noteworthy in this regard:

- Areas covered by indigenous forest (afforded protection by the National Forests Act No. 84 of 1998), forestry and nature reserves e.g. Dwesa, Silaka and Mkambati.
- The coastline, with its associated rocky shores, sandy beaches, dune-fields and estuaries (afforded protection by the proclamation of the Pondoland Marine Protected Area and nature reserves such as Dwesa, Silaka and Mkambati).
- The area in Pondoland underlain by the Natal Group sandstones, which is associated with deeply incised valleys and waterfalls (afforded protection by *inter alia* the Mkambati Nature Reserve).
- Spectacular natural phenomena such as waterfalls, gorges, caves and vistas could also be included.

Areas of Scenic Landscape include such features as: coastal dunes, the Wild Coast Planning Domain, heritage sites and Ramsar Wetland sites. Some of these features are already identified under other categories. The mapping of these features is largely based on data provided by the Department of Environmental Affairs and Tourism (DEAT).

4.4 ECONOMIC ISSUES RELATING MAINLY TO FORESTRY

Three major forestry industry players were consulted as part of the scoping process. These include SAPPI, the Han Merensky Corporation (who have the lease for DWAF's Singisi and Langeni/Umtata plantations) and the Rance Timber Company based in the Stutterheim area. In addition, ongoing liaison with DWAF through the Steering Committee established to guide the SEA also served as a forum to identify issues requiring investigation.

All three commercial companies expressed an interest in entering into contracts with timber growers. However, only SAPPI has been actively seeking out such contracts (although they have now put such initiatives in WMA 12 on hold until the SEA has been completed). It was clear, however, that there are limits to their interest in such contracts. In order for such contracts to remain viable in most cases, the growers have to be located within 100-150km from the processing plants located in Stutterheim, Umtata, Wesa/Harding and Umkomaas. The timber also needs to be accessible via road.

These companies also expressed a reluctance to enter into contracts with hundreds of individual growers due to the heavy administrative burden placed on them. Their preference is to work with coordinated groups (although the contracts could be with the group or with individuals). Working with groups is seen as advantageous, especially when initiating afforestation projects in new areas, as it helps to fast-track negotiations, get the support of the broader community, make larger areas of land available for forestry, and maximise the economies of scale by helping individual households to overcome their resource constraints through cooperation and the pooling of resources. The need to access relatively large blocks of land (rather than small individual plots of 1-2 ha in size) appeared to be particularly important when initiating forestry activities in a new area in order to maximise the economies of scale and ensure the profitability of the venture.

Other issues of concern to the forestry representatives are very similar to those expressed by advocates of increased agricultural production. These are summarised as economic (market fluctuations in commodity prices), infrastructure (lack of adequate road and rail systems) and concern over land tenure systems (access to land and capital). The fluctuation in local market prices for forest products is largely dependent upon external forces. This poses a limitation on the distance that timber companies are able to transport logs from the field to their processing facilities. Obviously, the greater the current market value of timber products, the greater the distance the companies can travel to acquire timber. The economically feasible distance is therefore not well defined and as such, those plantations on the periphery may not be viable at the time they are ready to be harvested. The cost of shipping (both from harvest to processing and from processing to market) is closely related to the capacity of transport (both road and rail). The forestry companies are concerned with the capacity of the existing road and rail links both in their quality and quantity within the region. Access to land resources and capital for poor communities is another concern raised by the forestry sector. Smaller forestry operators and entrepreneurial enterprises may be limited by their inability to raise capital for forestry investment. This is compounded by the land tenure system wherein property rights are not well defined and may not be secured as collateral.

4.5 ISSUES AND CONCERNS RELATING TO WATER RESOURCES

Forestry plantations use more water than natural vegetation which they typically replace. This results in less water in the river systems and reduces the amount available to maintain healthy streams, aquatic ecosystems and estuaries, and to provide for other competing uses such as meeting basic human needs and agricultural or industrial production. Forestry is also listed as a “stream flow reduction activity” by the Department of Water Affairs and Forestry (DWAF) and as such, all applications must receive a licence to “use water” for the growing of trees. Forestry plantations are not irrigated in the same way as many other crops, but take their water directly from precipitation and runoff thereby reducing the water available for other uses. The protection of water supply and of a healthy ecosystem in response to various development proposals is a significant factor in the determination of sustainable land uses in South Africa and in the overall study area in particular.

Fundamental to any assessment of water availability for development is an understanding of the reserve, i.e. the quantity and quality of water needed to sustain *basic human needs* and *ecosystems*. As DWAF is the custodian of the nation’s water resources, it is the Department’s responsibility to ensure the adequate protection, effective management and sustainable utilisation of these resources. Some stakeholders raised the problem of forestry taking up a lot of water and therefore affecting water supply for communities in downstream catchments. For example, the Port Edward Water Board raised concerns about the development of the forestry project at Mzizi as they felt that it affects water downstream in the Mtamvuna River. This view was also shared by the sugarcane farmers.

The major issue with respect to the allocation of water focuses on the concern for maintaining the present Ecological Reserve determination for the selected catchments while simultaneously providing sufficient water to support new development. This issue is confounded by a lack of quantitative data on the present state of the catchments, lack of detailed (comprehensive) reserve determinations and subjectivity as to the appropriate usage characteristics of various land use options. Important to this issue is to evaluate whether the Ecological Reserve requirements are currently being met, and if not, to what extent they are not being met. This can be determined by carrying out a water resources modelling simulation for the entire study area (excluding the Kei area), and the assurance at which the Ecological Reserve could be met.

The Mzimvubu to Keiskamma WMA is one of the areas with the lowest total requirements for water use in the country, due to the relatively high rainfall and low level of economic activity. About 50% of the total water requirement in the area is for irrigation, 30% for urban and industrial use and the remainder for rural water supplies (domestic and stock watering) and afforestation (Basson and Rossouw 2003). Extensive commercial forestry occurs in the upper parts of the Mbashe, Mtata and Mzimvubu key areas, resulting in reduced runoff into Mtata Dam. With the exception of Langeni sawmill situated above the town of Umtata, there are small-scale sawmills in the Mtata key area (DWAF 2004b). Water resources in the Wild Coast area have very limited utilisable yield due to the absence of storage, high ecological importance of the area and large ecological water requirements to sustain ecosystem health (DWAF 2004b).

Despite the availability of water in the WMA, the following points must be noted:

- Due to many of the rural water requirements being met by run-of-river yield, deficits occurring during the dry season may impact on the Reserve (Basson and Rossouw 2003). This situation will obviously be exacerbated by any developments in the area,

- particularly land uses requiring 100% assurance of supply such as forestry and dry-land crop production.
- Hydrological monitoring and information available for the study area is very poor. Improved hydrological observations and an expanded database are critical.
 - Water quality data collection is also severely limited, particularly in the Mzimvubu–Mbashe area, due to infrastructure constraints and human resource limitations, e.g. there is no routine faecal coliform testing at springs. There is little or no monitoring capacity outside of larger towns and limited to no data validation. Relevant information arising from available projects and contracts is not input into regional or national data systems (DWAF 2004b).
 - Although areas suitable for afforestation may be available in the Mzimvubu, Mtata and Mbashe sub-areas, expansion of afforestation will result in a reduction in run-off, which will impact supplies to run-of-river users as well as for meeting the Ecological Water Requirements (Basson and Rossouw 2003).
 - Potential exists for forestry in the coastal areas of the Mtata Basin according to the Mzimvubu–Mbashe Internal Strategic Perspective (DWAF 2004b). However, the authors clearly state the potential impact that expanded forestry would have on run-of-river yield and freshwater requirements of estuaries such as the Mngazi, which is an important tourism node. The same statement holds true for the Mbashe area, where expanded forestry would also impact on the run-of-river users such as the town of Encgobo.
 - According to Basson and Rossouw (2003), no more forestry should be allowed in the Amatole sub-area, particularly as there is already over-allocation of the water resources of Rooikrantz and Maden dams (DWAF 2004a).
 - Development in the Wild Coast area (which has little utilisable yield at present) will require augmentation of run-of-river supply from groundwater supplies, regulation of rivers, or the conjunctive use of surface and groundwater (DWAF 2004b).
 - Basson and Rossouw (2003) clearly state their concerns regarding allowances to meet the Ecological Reserve. *“Improved estimates of the water requirements for the ecological component of the Reserve are essential to the evaluation of water use allowances and to determine possible compensatory measures. A programme should therefore be developed for determination of the Reserve in order to support initiatives for development in the water management area. A programme is also required for improvement of the hydrological database.”*
 - An accurate assessment of the Ecological Reserve must be undertaken for Kei Mouth due to the importance of this area (DWAF 2004a).

Analysis of the available water supply that could support forestry or other land uses is required in the SEA to determine if ecological requirements, weighed up against socio-economic impacts, could unlock much of the development potential of these areas. However, the suitability of Reserve flows are not judged on assurance of supply standards (e.g. 95% vs 90%), but on the stress that the biota can withstand under various flow and quality conditions. Duration curves are therefore developed for different flow conditions and evaluated by specialists to determine the impact on the ecology, and therefore Ecological Reserve requirements. The Directorate: Resource Directed Measures must then decide on the appropriate level of Recommended Ecological Category (REC). This decision will greatly impact the amount of water that can accommodate additional economic development in the region, and will receive careful attention in the SEA.

4.6 SUMMARY OF THE ISSUES REQUIRING INVESTIGATION IN THE SEA

Table 4.1 below provides a summary of the issues raised during the scoping exercise. It should be pointed out that, due to the complexity of the study, the difficulties experienced by the study team in engaging with a wide range of stakeholders with various capacity levels, and the relatively open nature of SEA, many of the issues are based on the team's own experiences in environmental assessment. Stakeholders are therefore encouraged to confirm these issues, and to add additional issues which may not have been captured yet. This is very important, as the SEA must address all concerns or issues, or state which issues could not be addressed, and the reasons for this. A more detailed issues and response trail is included in Appendix A.

Table 4.1: List of issues relating to various land use options in the study area

MAIN CATEGORY OF ISSUE: Biodiversity	
Issue	Stakeholder
<i>The lack of a Systematic Conservation Plan for WMA 12 might constrain sustainable development.</i>	CES
<i>Loss of indigenous plant cover and habitat due to forestry and crop production.</i>	CES / DEAET
<i>The results of the Biodiversity Action Plan must be considered.</i>	J. Jackleman
<i>Development pressure in conservation worthy areas is of concern, and must not be encouraged in the SEA.</i>	WESSA
<i>Areas of conservation value and of high biodiversity must be avoided.</i>	WESSA
<i>Compensation for loss of biodiversity should be considered as a form of mitigating impacts.</i>	WESSA
MAIN CATEGORY OF ISSUE: Cumulative Impacts	
Issue	Stakeholder
<i>Cumulative impacts and the secondary effects of any interventions must be considered.</i>	WESSA
<i>If new infrastructure (especially roads) is required the impact of these will need to be considered, especially if these roads traverse steep slopes or wilderness areas. This should include impacts of trucks on the road user.</i>	WESSA
MAIN CATEGORY OF ISSUE: Decision-Making	
Issue	Stakeholder
<i>Approval process for forestry and start date takes too long.</i>	Community
<i>A fair and transparent community decision-making process to arrive at a decision on whether or not to afforest is required.</i>	DWAF
<i>There is a need to develop a fast-tracked licensing procedure.</i>	DWAF/Forestry Sector
<i>The SEA should not provide a blanket authorisation or exemption from EIAs.</i>	WESSA
<i>The SEA should identify NO GO areas for forestry as well as possible areas.</i>	WESSA
<i>Guidelines need to consider the opportunity costs for other land uses that were and could have been available.</i>	WESSA
MAIN CATEGORY OF ISSUE: Ecological Impacts	
Issue	Stakeholder
<i>Invasion of wattle and other species into natural areas due to poor management of plantations.</i>	Communities / DEAET
<i>3% of Contextual Study Area and 18% of Focus Area are covered by vegetation types sensitive to development.</i>	CES
<i>The Pondoland Centre of Endemism covers a significant portion of the Focus Area.</i>	CES

<i>Coastal grasslands and forest habitats serve as important areas for montane bird species in winter.</i>	CES
<i>Most of the large and medium sized mammal fauna is locally extinct or occurs in fragmented habitats.</i>	CES
<i>Reduced or altered stream flow patterns due to changes in watershed hydrology.</i>	CES / DWAF
<i>Impacts on river courses, estuaries and wetlands must be carefully considered, as they serve a vital role in ecosystem function.</i>	WESSA / CSIR
<i>Increased risk of pollution into streams from sediment and other sources of pollution.</i>	CES
<i>Increased risk of erosion due to agriculture or forestry.</i>	CES / ISP
<i>A change in the frequency of fires due to forestry or commercial grazing may affect fauna & flora.</i>	CES
<i>Decrease in water quality due to inadequate sanitation and poor solid waste management.</i>	CES / ISP
MAIN CATEGORY OF ISSUE: Economic	
Issue	Stakeholder
<i>Need for growers to be located within 100-150 km from processing plants in Stutterheim, Umtata, Weza and Umkomaas.</i>	Forest sector
<i>Public Private Partnerships are important to ensure success of projects.</i>	Private sector
<i>There is poverty in the area resulting in a demand for development.</i>	Communities
<i>Concerns about the financial sustainability of afforestation projects.</i>	Communities
MAIN CATEGORY OF ISSUE: Forestry Development	
Issue	Stakeholder
<i>Preference to engage in communities rather than individuals.</i>	Sappi, Singisi, Rance
<i>Facilitate access to SLAG funds for local communities.</i>	Sappi
<i>Willingness to fund establishment and maintenance of plantations provided advanced funds recovered (without interest).</i>	Sappi, Singisi
<i>Insufficient investment in addressing issue of finding and accessing markets.</i>	Communities
<i>Forestry will only be implemented if communities are willing to participate.</i>	DWAF
<i>Forestry has the ability to create jobs, generate wealth and act as a rural development catalyst.</i>	DWAF
<i>Ownership and management issues are important considerations, and should look at more community involvement and participation.</i>	WESSA, BRC
<i>Community ownership, in line with the Broad-based Black Economic Empowerment Act, and Public Private Partnerships requires consideration.</i>	WESSA, BRC
<i>A project such as this, with benefits to the local community, could be highly politicised, and this must be managed.</i>	DWAF
MAIN CATEGORY OF ISSUE: Infrastructure	
Issue	Stakeholder
<i>Lack of Government support for improved infrastructure and other support such as training.</i>	Community
<i>Need to upgrade road and transport infrastructure.</i>	District Municipalities
<i>Determine what influence the Kei Rail project will have on this initiative.</i>	Forestry Sector
<i>The availability of infrastructure in an area must be considered when assessing forestry potential.</i>	WESSA
MAIN CATEGORY OF ISSUE: Institutional	
Issue	Stakeholder
<i>Delays in initiating tenders for the commercial leasing of Category B forests and devolution of woodlots.</i>	Forestry sector
<i>Concerns regarding unexplained policy decisions by local authorities to support short term poverty alleviation projects rather than long-term projects.</i>	Communities
<i>Local municipalities supportive of forestry projects, but see them as responsibility of DWAF.</i>	LMS

<i>LMs need to consult with tribal authorities (TAs) concerning land use decisions, due to their influence at community level and ex-officio status on Municipal Councils.</i>	LMs
<i>TAs are supportive of forestry projects and have initiated some.</i>	TAs & Chief Lebenye
<i>In places there are tensions between TAs and LMs.</i>	LMs
<i>Concerns about institutional and capacity constraints.</i>	Forestry Sector
<i>Concerns over multiple SEAs and confusion over possible outcomes.</i>	LMs and Public
<i>Identify the kinds of institutional structures and capacity that would be needed to facilitate commercial land use developments in the communal areas, and determine whether this capacity exists and how could it be built.</i>	CES
<i>There is currently limited private sector involvement in institutional building, and the SEA should facilitate greater private sector involvement in institutional building.</i>	BRC
<i>Forestry sector should take the lead for capacity and institutional building of Local Authorities in the EC.</i>	BRC
MAIN CATEGORY OF ISSUE: Land Tenure and Land Use Issues	
Issue	Stakeholder
<i>Willingness to work with the DLA framework for land use change and community engagement.</i>	Sappi
<i>Conflicts over land use within state land and where land claims remain unresolved.</i>	CES
<i>Tension between groups wishing to use land for subsistence agriculture and those wanting land for commercial (forestry) ventures.</i>	Community
<i>Need for relatively large parcels of land in new areas to maximise economies of scale and profitability.</i>	Forestry sector
<i>Support for land use developments, including forest initiatives.</i>	Communities
<i>Communities not willing to give up the bulk of their land to forestry, as it is seen as a supplementary activity.</i>	Communities
<i>Unresolved land claims delay developments on former agricultural parastatal lands.</i>	Communities
<i>Competition for land for other projects (e.g. sugar and tea) exist in TRACOR and Magwa estates.</i>	Communities
<i>The implications of increased pressure on land and resources (e.g. grazing) as a result of large scale forestry.</i>	DWAF
<i>Concerns about the potential negative impacts of forestry on existing land uses and rural livelihoods and doubts about the scale of benefits.</i>	Public
<i>Are there any legal, land tenure and use issues in the EC province that would inhibit the development of small grower programmes such as those in KZN?</i>	CES
<i>What village level institutional models for commercial land use developments would be most appropriate for residents of communal areas in WMA 12?</i>	CES
MAIN CATEGORY OF ISSUE: Management Skills and Capacity	
Issue	Stakeholder
<i>Lack of experience in marketing and making business decisions.</i>	Community
<i>Training and capacity building will be required to make any development intervention work.</i>	NGOs
<i>An ongoing awareness campaign to present a well balanced view of risks, costs and benefits of forestry is required.</i>	DWAF
<i>The issue of skills development and local beneficiation must be considered.</i>	WESSA
MAIN CATEGORY OF ISSUE: Planning	
Issue	Stakeholder
<i>There is a need to integrate forestry with other development options, as well as the Provincial Growth & Development Programme.</i>	District Municipality Border Rural Committee
<i>Any initiative must be integrated with rural strategy plans, IDPs and SDFs.</i>	District Municipality

<i>In the past, land use planning by DMs and LMs has not involved sufficient stakeholder engagement.</i>	DMs & LMs
<i>Spatial development frameworks are seen as a guideline and many people are not aware of them.</i>	DMs & LMs
<i>IDPs need to recognise forestry as a potential land use.</i>	DWAF / LMs
<i>The SEA will impact on other developments in the area, and it must therefore take account of existing and fit in with these projects.</i>	WESSA, OR Tambo
<i>Integration of rural and urban communities is important.</i>	WESSA
MAIN CATEGORY OF ISSUE: Public Participation	
Issue	Stakeholder
<i>Municipalities are being subjected to a range of related studies, resulting in the SEA being confused with these studies.</i>	DMs & LMs
<i>It is important to share the results of the studies with all stakeholders.</i>	DMs & LMs
<i>Traditional Authorities are seen as important stakeholders.</i>	CES
<i>The role that IAPs are expected to play must be clarified.</i>	Border Rural Committee – BRC
<i>Opportunity and sufficient time to comment on the Scoping Report must be given</i>	BRC
<i>Continuous and ongoing community involvement is needed, and this will require community empowerment.</i>	BRC
<i>Engagement with rural communities must be appropriate and consider the education and literacy levels of the people.</i>	BRC
<i>Geographical spread and times of meetings must be appropriate.</i>	BRC
<i>The process must consider the issues, needs and desires of people in the OR Tambo area.</i>	OR Tambo DM
MAIN CATEGORY OF ISSUE: SEA Process	
Issue	Stakeholder
<i>There is a level of confusion around the SEA process and its relationship with the forestry privatisation process.</i>	DMs & LMs
<i>There is a need to explain the forestry aspect of the SEA, as well as socio-economic implications and benefits to municipalities.</i>	DMs & LMs
<i>Engagement with other projects (Wild Coast SEA) is required.</i>	J. Jackleman
<i>Clarification of the scope of the SEA and what it will focus on (i.e. forestry or other land uses) is required.</i>	WESSA
<i>To what extent will the SEA guide forestry development in the Eastern Cape?</i>	WESSA
MAIN CATEGORY OF ISSUE: Social	
Issue	Stakeholder
<i>What are the social and other reasons that have allowed small grower timber and sugar schemes to expand so widely in KZN but not in the EC?</i>	CES
<i>Concerns about the extent to which commercial land use developments can coexist and complement existing land uses without undermining food production and household security.</i>	Communities
<i>Sustainable livelihood options must be considered.</i>	EC NGO Coalition
<i>Facilitating development within rural areas must be a focus of the SEA, and it must look at areas where forestry can occur, but also look at other development initiative, with an emphasis on poverty alleviation.</i>	BRC
<i>Forestry has the ability to create jobs, but the SEA must balance the need for creating jobs with commercially efficient forestry.</i>	WESSA
<i>Labour must be drawn from local communities.</i>	WESSA

MAIN CATEGORY OF ISSUE: Water Use	
Issue	Stakeholder
<i>Reduced water to downstream users due to forestry.</i>	Community, sugar farmers
<i>Is the Ecological Reserve being met, if not, to what extent is it not being met (under present use)?</i>	RDM
<i>Is enough water available for forestry?</i>	RDM
<i>Sufficient data may not be available in certain catchments to assess yield availability.</i>	RDM
<i>How will forestry impact on Ecological Water Requirements, particularly at times of low flow?</i>	RDM
<i>Broad overview of available yield and quality issues important.</i>	RDM

5 APPROACH AND STUDIES REQUIRED TO ADDRESS ISSUES AND CONCERNS

5.1 OVERALL APPROACH AND CHALLENGES

5.1.1 GUIDING PRINCIPLES AND LIMITATIONS

Whilst national guidelines for undertaking Strategic Environmental Assessments exist (DEAT 2000), the guidelines describe SEA as being context specific. This essentially means that a specific approach needs to be developed for each SEA, tailor-made to suit the specific context and complexity of the study. This chapter describes briefly the approach adopted for the SEA for Water Management Area 12, and describes the specialist investigations that will be required in order to address the concerns and issues raised by various stakeholders as presented in the preceding chapter.

The overall approach to this SEA is underpinned by the principles of sustainability, and recognition of the need for sustainable development within the study area. Furthermore, the SEA is guided by the principles of Integrated Environmental Management, particularly with respect to informed decision-making; adopts a broad definition of the term environment; has an open and participatory approach to planning, and attempting to ensure that the social benefits of development interventions outweigh the social costs, as the latter are generally borne by society and the natural environment. Although this sounds complex and ambitious, the overall intention is simple. The SEA aims to ensure that any development is sustainable, that it results in minimum harm to the environment and maximises social benefits offered by the natural environment.

This requires the evaluation of appropriate land use options at a consistent level of detail, whilst acknowledging that forestry is the driving force behind the SEA. We therefore need to guard against over emphasising forestry as a development option, and this will be achieved by adopting an approach that ensures forestry will not take place at the expense of other more appropriate land use options, and that furthermore forestry will only take place in areas where the environmental impacts can be minimised, where the natural resources (especially water) can sustain forestry, and where local communities embrace forestry as an appropriate development intervention for social upliftment. In this regard it needs to be stated at the outset that an over-arching principle is that any development intervention must ensure community participation through equitable and fair access to the resources that the natural environment offers.

In this context the use of SEA as a planning tool should allow us to assess whether any of the land use options meet the criteria of ecological, social, economic and institutional sustainability. This will enable environmentally unsound ideas to be abandoned before they are turned into projects. Achieving these goals present technical, process and methodological challenges, but the consulting team is confident that these can be overcome, especially since a Steering Committee has been established by DWAF, with representatives from Provincial and National departments and an international review consultant. Their guidance will be sought throughout the process, to ensure that the SEA makes a meaningful contribution and achieves its objectives.

It is also important that stakeholders are made aware of the limitations of the SEA, as these may influence the outcome and the ability to achieve the stipulated goals. The following limitations are important:

- Much of the SEA relies on the gathering of secondary data, and not the collection of primary field data, with the exception of socio-economic surveys and the stakeholder consultation process. This is a limitation since a large portion of the study area remains unexplored scientifically, with the result that site specific information is generally lacking. This is not seen as a major limitation due to the strategic level of investigation. It will, however, become a significant limitation when deciding on specific land use options in specific areas, although this will only take place at the later phase of implementation.
- The lack of a systematic conservation plan within the entire study area constrains the identification of opportunities and constraints, and makes it difficult for the SEA to provide meaningful input into a decision support system. This limitation has been addressed to a certain extent through the development of a systematic conservation plan for the Focus Area.
- The undertaking of a broader SEA and a more detailed pilot SEA in the Focus Area presents process and methodological challenges that might be difficult to overcome in certain instances.
- Stakeholder engagement will need to be limited to engaging with organisational structures, in particular at the District Municipal Level and possibly at Local Municipal Level, although even this will be difficult to achieve as there are over 40 Local Municipalities within this study area. It is therefore possible that the findings of the SEA will, in certain instances, remain untested in the public domain. This limitation can be overcome to a certain extent by engaging at a more intensive level within the Focus Area.
- The need to define land use options or development interventions as part of the SEA is challenging, as more information will be available for the forestry sector than other potential land use options. Careful consideration needs to be given to ensuring that these land use options are compared at the same strategic level of detail.
- Successful integration of scientific information that ranges from purely technical assessments of water availability to less defined social aspects is a potential limitation.
- Undertaking a sustainability appraisal, and developing sustainability parameters that reflect broadly the value systems of the affected stakeholders is a significant challenge, and the acceptance of this outcome might be an important limitation to the process.

5.1.2 OVERALL APPROACH

Sound project management and the integration of various processes (e.g. stakeholder involvement) and products (e.g. specialist studies) are key to the success of this SEA. Figure 5.1 presents the structure of the SEA team, which we believe will be able to deal with the multi-sectoral and multi-disciplinary nature of the SEA.

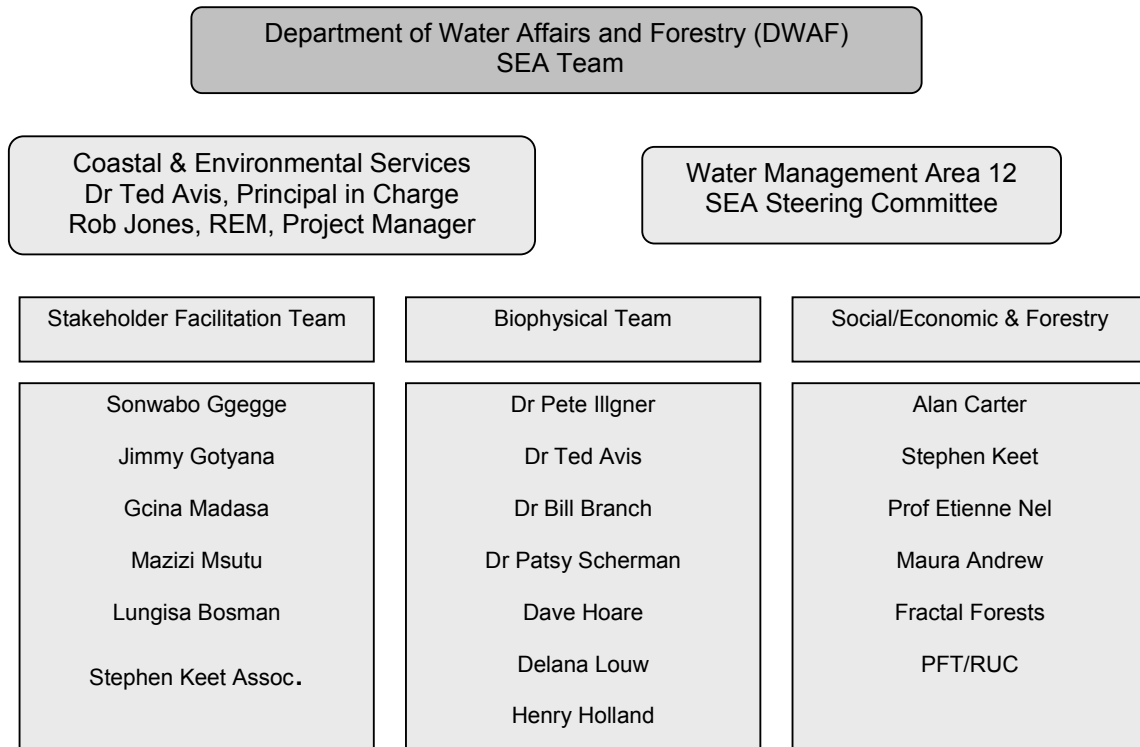


Figure 5.2: Organisational structure of the SEA team

The SEA involved the development of an Inception Report, which provided more detail on the overall approach and the technical investigations that were anticipated. This Inception Report was reviewed by the Steering Committee and approved.

The next output of the study is this Scoping Report, which is to be released for a four-week public review period. The objectives of the Scoping Report have been outlined in the introduction, but essentially stakeholders need to review the document to determine if all issues and concerns they have are being addressed in the SEA. They also need a clear understanding of the objectives and rationale behind the study and the opinion as to whether the investigations being undertaken will adequately deal with the issues. After receipt of comments from stakeholders, the draft Scoping Report will be finalised. Figure 5.2 provides a diagrammatic flow chart of the SEA study process including the current status and way forward.

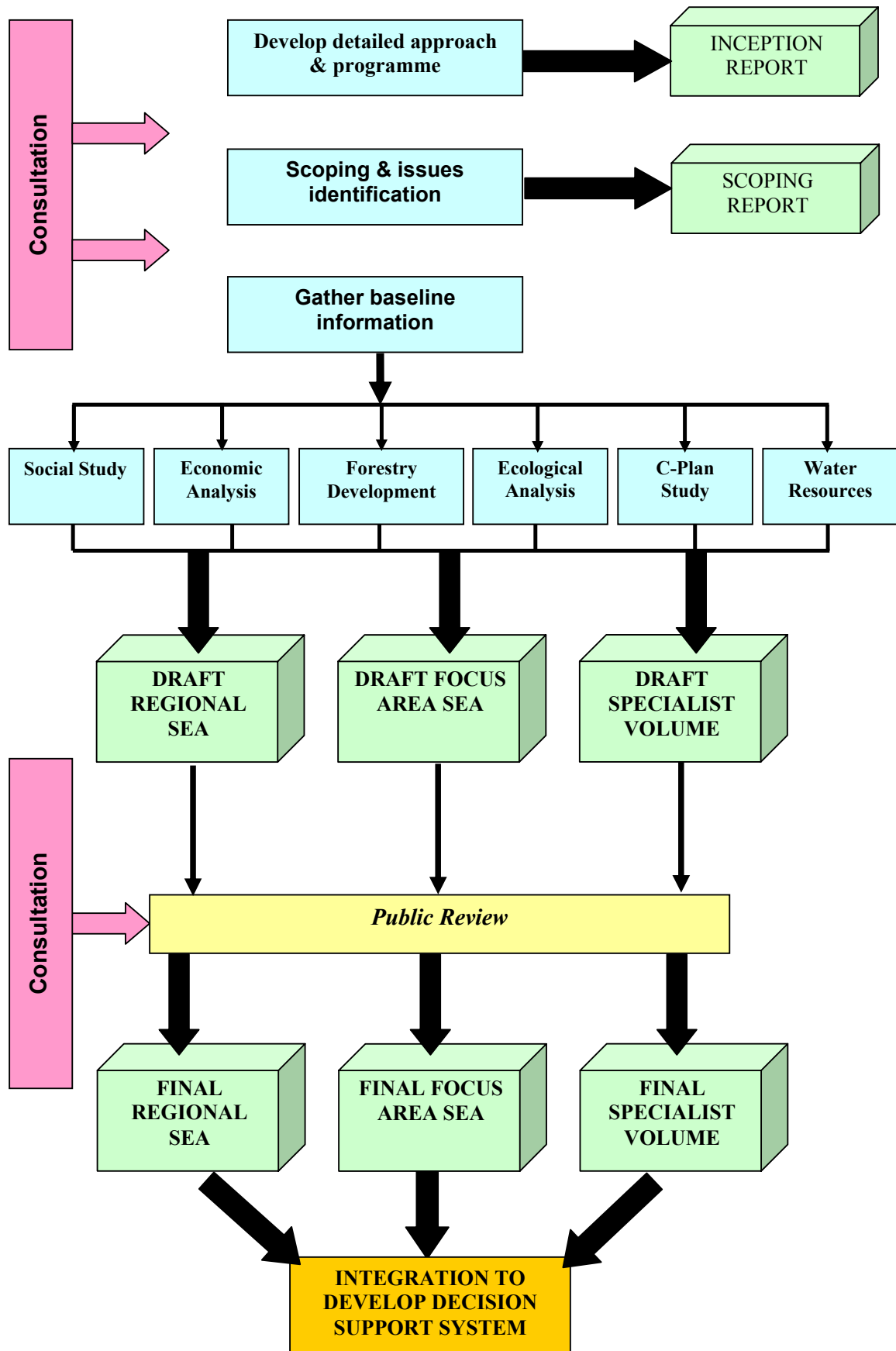


Figure 5.2: SEA process followed in this study

An important and significant component of the SEA is the gathering of baseline information. As mentioned earlier, this is primarily secondary in nature, using existing information, reports, maps and other studies that have been undertaken within the WMA 12 area. In order to address the various issues and concerns identified during the scoping exercise, it is anticipated that the following technical investigations will be required:

- Social study
- Economic analysis
- Ecological analysis
- Systematic Conservation Planning
- Water resources study

Further details on these studies are provided in the next section.

Three important deliverables from these technical investigations will be generated. The first will be a draft Focus Area SEA that will investigate issues in the Focus Area in more detail. This SEA will identify development options for the focus area; describe biophysical and socio-economic constraints and opportunities; develop a GIS atlas of forestry potentials; and develop an integrated decision support framework.

The Focus Area SEA will be informed by the second important deliverable, the Technical Reports (Volume II). This volume will contain the detailed technical information gathered by a team of specialists, tasked with gathering scientific information in order to address the issues and concerns raised during the scoping phase of the SEA. This Technical Reports Volume is what is known as a situation assessment in SEA terminology. Information contained in the Technical Reports Volume is synthesised and integrated in the draft Focus Area SEA (Volume III), as well as the fourth deliverable, the draft Regional SEA (Volume IV). This document will have a similar content to the Focus Area SEA, except that it will cover the entire WMA 12 area. However, because of the level of information available for the WMA 12 area, this document, out of necessity, will be less detailed than the draft Focus Area SEA. This approach has been adopted due to the urgency around delivering development interventions in the Focus Area. The draft Focus Area SEA and the draft Technical Reports Volume will be released in April 2005 and the Regional SEA will be released in August 2005. All documents will be subject to a public review period of four weeks, during which time workshops and public meetings will be held in order to facilitate the interpretation of results by stakeholders. This engagement process will be more intensive in the Focus Area than for the Regional SEA, due to the more detailed assessment.

It is only after a public review of the documents that final reports can be prepared (Figure 5.2). Information contained in these reports will also be used to produce a decision support system that will aid local, district and provincial authorities when making decisions around forestry developments and the issuing of forestry permits. All final deliverables will be presented to the Department of Water Affairs and Forestry as lead agent in this initiative, as well as other National and Provincial Departments.

5.2 SPECIALIST STUDIES

5.2.1 BIOPHYSICAL ANALYSIS

Sensitivity Analysis

The major emphasis of this study is to identify sensitive regions with respect to the natural environment. This analysis will examine information on the vegetation utilising the new vegetation map of South Africa (recently released by the National Biodiversity Institute), as well as information from previous studies on the biodiversity, vegetation types and sensitivity of many areas in the Eastern Cape. In addition, the western area includes information from the STEP programme, which produced detailed information on vegetation, conservation areas and hence the sensitivity of the thicket biome. Other data may include the thicket ecosystem programme and the Drakensberg transfrontier park data to the northeast. A spatial database will be developed using the DWAF protocol provided by their Geomatics Directorate. Data layers for inclusion in this spatial database will include vegetation, landform, land use and protected areas. This data will be obtained for the entire Contextual Study Area.

A field reconnaissance trip will be carried out to obtain expert input on the biophysical aspects of the landscape in the Focus Study Area. These field observations will ultimately be used to augment existing data available for the area. Site visits of this nature can be a particularly useful aid to the identification and later assessment of the significance of impacts on the landscape by various land use activities.

A protocol will be developed for the compilation of an Environmental Sensitivity Map with the following anticipated parameters:

- Gazetted conservation areas;
- Areas covered by indigenous forests;
- Areas covered by wetlands;
- Urban/densely populated or areas within 50 metres of villages;
- Areas of high importance for the conservation of vegetation;
- Areas of high importance for faunal conservation (to be obtained from the Biobase generated by the CSIR); and
- Areas that could be regarded as important scenic landscapes.

The results of this analysis will be integrated with those obtained in the Water Resources Assessment in order to define the actual area suitable for additional development activities.

Systematic Conservation Planning in the Focus Area

Systematic Conservation Planning is a formal approach to assessing land in terms of its biological importance. The most important measure is biological diversity. The natural environment is valued in terms of its biodiversity, how much of that biodiversity has been lost, and the threats to that which remain. Once these values have been obtained we have a very useful tool allowing managers to quantify the impacts of any consequent land use change on the environment. At the same time it is possible to see which areas could perhaps be developed without significant impact.

A Systematic Conservation Plan is seen as an essential tool in decision-making for forestry, but also for all forms of development which bring about land use change. A Systematic Conservation Planning process for the Wild Coast Project has been extended by DWAF to

cover the Focus Study Area to assist in the completion of this SEA. It is hoped that at a later stage this will be expanded to cover the entire WMA 12 area. This integrated Systematic Conservation Plan will be housed with the Provincial DEAET as the key agent in its maintenance and use. It should, however, be readily available to all other authorities, and also to development agencies who seek not only to map out constraints, but also to identify areas where the lack of constraints may suggest opportunities.

5.2.2 WATER QUANTITY/QUALITY ASSESSMENT

This specialist study will focus on water availability for various land use options over the entire study area by providing a contextual overview, and secondly, focused input on the zone of forestry potential in the east of the WMA. As a number of rivers traverse the WMA, the study will focus on providing an overview of water availability in the study area as a desktop assessment, using available information from existing gauging weirs, the provincial database and water balance data for the WMA. The methods that will be followed in this study are suitable for assessing the consequences of any proposed altered flow scenario due to, for example, stream flow reduction activities. The methods will also comply with the approved methods followed for Ecological Reserve assessments by DWAF according to the National Water Act. It must be noted, however, that as this represents methods suitable for scoping, the results will be of low confidence. The scope of work will include a desktop assessment of the water quantity Reserve of the selected rivers in the WMA area, i.e. A *Planning Estimate*, using information provided by DWAF. The planning estimate provides flows that will result in different ecological states of the river. Results of the desktop assessment on the most likely category will be provided. This information will also be used to supply consequences to any other proposed scenarios or developments in the catchment areas.

Using all available information, the most updated PES (present ecological state), EIS (ecological importance and sensitivity) and derived REC (recommended ecological category) of selected rivers (focusing particularly on rivers in the Focus Area) in WMA 12 will be determined.

The following specific issues will be addressed:

- The available water balance for the area (this step is not an attempt to redo the water balance, but update information where possible).
- Is forestry appropriate, and where is it appropriate?
- Are other land uses appropriate?
- Identify gaps and further work needed.
- Recommendations regarding assessments of Ecological Water Requirements.

The overall objective of the water quality assessment is to determine the Present Ecological State (PES) of the rivers in the WMA as a driver of the biological state of the rivers. PES will be described for selected (and available) water quality variables per priority site and river using the latest available methods for conducting Ecological Reserves in South Africa. This task aims to utilise all available information so as to provide an integrated present state assessment for water quality, for priority rivers identified within the study area.

The study will focus on collating available information for the study area, particularly information available from DWAF's Internal Strategic Perspective (ISP) for the area, and available water balance information. The hydrological study will therefore provide the following information, depending on the availability of data and information.

- How much water, and of what quality, is available within the study area, and more specifically, within the priority Mtamvuna, Mt Ayliff and Lusikisiki catchment areas.
- How water is currently used in the study area.
- Where will expanded forestry be most suitable as a land use option?
- Issues arising from existing allocations and use.
- How will existing allocations and use be affected by expanded forestry, and/or other development options?
- How the status quo will be affected by potential forestry developments.
- How forestry, and other development options considered in the study, will affect water availability and quality.
- Is expanded forestry an appropriate land use option, considering water quality and quantity constraints and impacts?
- The study will therefore serve to highlight constraints and opportunities, particularly in the priority area, related to the quantity and quality of available water.
- Recommendations regarding the use of specific tools for the effective management of available water in the WMA.
- Recommendations regarding areas requiring more intensive monitoring and/or data collection.
- Recommendations regarding the assessment of Ecological Water Requirements.

This information will be summarised as part of the overall project report and synthesised into the Opportunities and Constraints Matrix and Decision Support System for the WMA 12 SEA.

5.2.3 SOCIO-ECONOMIC RESEARCH

The two main objectives of this study will be to determine the socio-economic opportunities and constraints in areas within the Province that have afforestation potential, and to collect and present the relevant socio-economic data in a form that will enable decision-makers to make informed decisions in respect of land use alternatives. This information will form an integral part of the sustainability analysis of the various land use options to be incorporated into the Opportunities and Constraints Matrix, and will also provide input into the Decision Support System. The specific issues to be researched and information to be collected are outlined below.

In order to meet these objectives this investigation will identify and explain the various types and scales of forestry ventures that are being considered (industrial, subsistence, agro-forestry, woodlots), and weigh up the relative merits of these ventures contrasted to other viable land use options within the study area. The following factors will be considered:

- acceptability to communities (and the concerns raised);
- cultural, social, religious and other practices that may exist and how they are impacted by and their impact upon the existing and proposed land uses;
- potential distribution of benefits and risks to various groups and stakeholders;
- the financial and ownership implications of these ventures;
- the impact on local livelihoods and poverty alleviation;
- the impacts of public health issues (i.e. HIV Aids, cholera, malaria, etc.);
- the impact that local social and institutional dynamics might have on these ventures and vice versa;

- the potential impacts on land tenure and the constraints and opportunities that existing forms of tenure and reforms (that could potentially result from the adoption and implementation of the Communal Land Rights Bill) may place on afforestation ventures;
- the extent to which these options will meet local social needs;
- the knock-on effects these afforestation ventures might have on other land uses and land users, as well as other developments; and
- the possible consequences of no additional forestry development.

This investigation will also provide general socio-economic information for potential afforestation areas on the following: demographics, population density, land use, land tenure, levels of poverty and political dynamics. This information will be integrated as much as possible into the GIS database to be used to provide support for decision-making.

5.2.4 ECONOMIC ANALYSIS

The main objectives of this specialist investigation include:

- An evaluation of the relative opportunity benefits and costs of afforestation compared to the relative economic benefits and costs of competing land uses – such as tourism, agriculture etc. Alternative land use options will be identified by referring to relevant district level and local municipal Integrated Development Plans (IDPs), consultations with proponents of other sector plans (if available) such as Local Economic Development (LED), Land Use Management, etc., roundtable discussions and other sources.
- An evaluation of the employment opportunities and benefits that the differing current and potential land uses can yield. Simultaneously, costs of the differing options will need to be factored into the analysis.
- An evaluation of the economic returns that can be generated over a 20-year period of analysis by the different land use options, relative to known environmental variability across the Province and variations in economic activity.
- An evaluation of the economic benefits of water use in this decision-making process such that the opportunity benefits and costs of forestry can be assessed relative to other actual or potential water users.
- To evaluate different forestry models which can be considered with reference to issues such as land tenure, community dynamics and ownership variations and the relative benefits and costs of each approach.
- The nature of pre-existing and required investments in the area will be factored into the analysis as well as the costs and potential immediate and down-stream benefits of further infrastructure development.
- A review of existing and anticipated industrial facilities (i.e. support services to forestry plantations per se – nurseries, transport, intermediate stockyards, mills) in terms of their standard to meet acceptable levels of environmental management as compared to other industries functioning in the region.

From an analytical perspective the study will take cognisance of the provincial economics in terms of competing requirements for resources and water in particular, and at a macro-level the export value for the area for afforestation. In addition, analysing the long-term benefits and costs of forestry activity on the affected communities will be a key component, requiring close liaison with the parallel social study. The economic analysis of the various forestry and other land use options will determine the projected cash inflows relating to income and revenue generation, cash outflows for direct operating and capital expenditures, salaries and

wages to local communities and natural resource consumption (e.g. water). Consideration of opportunity costs and benefits will be based on the use of Discounted Cash Flow Analysis, Internal Rates of Return and twenty-year cash flow projections.

In terms of achieving the sustainability objectives of the study, other intangible external and societal costs will be considered, although due to the difficulties in quantifying such costs, these may be evaluated qualitatively.

5.3 OPPORTUNITIES / CONSTRAINT MATRIX

An Opportunities and Constraints Matrix (OCM) will be developed to assess the relative strengths and weaknesses of the proposed afforestation model versus other sustainable development options. The matrix will be refined from a variety of spatial inputs, including biophysical, socio-economic and cultural influences. The matrix will assess the probable impacts of a variety of land use options on the biophysical, socio-economic and cultural features of the study area.

The primary development of the OCM will be via the spatial database. Consultation with stakeholders and end users in order to identify the spatial database format that will be of greatest value to the widest range of planning practitioners will be undertaken, taking particular cognisance of their existing technical capacity and level of training. The spatial data coverages will be used to identify areas suitable to afforestation based on their physical, biological, social and economic characteristics. The data will also be used to identify areas suitable for land uses other than afforestation based on their physical, biological, social and economic characteristics. This should facilitate scenario planning for the study area. The OCM will assess the land use scenarios at the local municipality level for the Focus Area SEA and at the District Municipality level for the overall study area.

5.4 SUSTAINABILITY MEASUREMENT AND DECISION SUPPORT SYSTEM

A central theme throughout the SEA is the issue of sustainability and the vision for implementing sustainable development options. This is a concept that is entrenched in current South African legislation (including the Constitution and the National Environmental Management Act), where financial, social and environmental issues need to be considered in “development that meets the needs of the current generation without compromising the ability of future generations to meet their own needs”.

A sustainability appraisal will be developed to demonstrate the implications of any proposed land use change scenario through the application of a Decision Support System (DSS). The proposed DSS methodological framework will be similar to that utilised in the Mhlathuze SEA. The financial, social and environmental data gathered during the current study for various land use options will permit the generation of cost versus benefit analysis that will in turn inform on the desirability of a particular land use option for a particular geographical area.

Indices will need to consider both the financial and non-financial costs and benefits of the various land use options. Where impacts or benefits are difficult to quantify in financial terms (e.g. loss of biodiversity, loss of sense of place of displaced people), these issues will need to be measured and weighted in such a way that their significance (or lack thereof) is clearly reflected in the DSS outputs and “sustainability” analysis.

6 CONCLUSIONS, RECOMMENDATIONS AND WAY FORWARD

This Scoping Report has identified the pertinent issues related to the establishment of new afforestation projects within the eastern portion of the Eastern Cape. Considerable information is needed to render sound decisions as to the sustainability (environmentally, economically and socially) of potential development proposals. This document seeks to identify the issues and concerns of the various stakeholders and has identified a number of areas where additional research and investigation is needed. Significant gaps exist in the following core areas of consideration.

Biophysical Environment

- ❑ *Will new afforestation projects place unacceptable stress on the natural environment vis-a-vie reductions in streamflow, alien plant infestations or biodiversity losses?*
- ❑ *What would the impacts of likely alternatives be (better or worse)?*

Socio-Economic Environment

- ❑ *To what extent can new afforestation projects play a role in poverty alleviation in the region?*
- ❑ *Will new projects be sustainable including social, economic and environmental considerations?*
- ❑ *How does afforestation as a land use compare in both economic sustainability and environmental impact to other potentially viable land use alternatives?*

Institutional Environment

- ❑ *How will new afforestation projects be accepted by local and district level municipal governments and their constituents?*
- ❑ *What are the capacity needs of local and district municipalities with respect to land use planning and project review?*

6.1 ADDITIONAL INVESTIGATIONS NEEDED

In order to address these deficiencies in information, this SEA recommends that the following activities/studies take place:

Biophysical

- Complete the Systematic Conservation Planning exercise and incorporate the results into the SEA.
- Run simulation models on selected catchments to give an indication of the impact that afforestation is likely to have on the Reserve in terms of:
 - will the Reserve be met; if not by how much;
 - will there be an impact on the ecology, and if so,
 - qualify this impact in terms of the ecology's ability to cope with, recover from or adapt to this impact.

- Assess the effect of afforestation “position in the landscape” on the hydrology based on key technical inputs from forestry/geohydrology specialists. This task is based on the assumption that the position of forests in relation to the rivers may affect the impact of afforestation on run-of-river yields (*It is assumed that this task may be initiated in the form of a specialist workshop*).
- Revisit the modelling exercise based on the outcomes from above if required.

Socio-Economic

- Identify key potential forestry development nodes based on most recent biophysical mapping and economic considerations.
- Assess the long-term implications of forestry as a land use, including social, economic and environmental impacts.
- Prepare an Opportunities and Constraint Matrix for each land use alternative and compare to forestry vis-a-vie the above considerations.

Institutional

- Assess the capacity of local institutions to integrate the findings of the SEA into local planning processes, i.e. Integrated Development Plans.
- Meet with local government representatives to evaluate the implementation of a DSS and provide support to DWAF for implementation procedures.

6.2 ADDITIONAL STAKEHOLDER ENGAGEMENT

Due to the strategic nature of SEAs, many Interested and Affected Parties (I&APs) have not yet seen a place for their involvement and are awaiting further, more specific proposals to respond to in detail. There is also a fair degree of confusion, mistrust, dissolution and fatigue associated with what are perceived as government funded proposals and projects. These feelings are understandable given the dismal performance of past parastatals and certain government-led enterprises in the past. The challenge for this SEA is to continue to engage stakeholders throughout the process, despite the issues identified above, and to deliver on the agreed upon objectives.

Specific recommendations for additional stakeholder engagement include the following:

- Conduct follow-up meetings with the municipalities and other stakeholders to inform them of the results of the Focus Area and Contextual Area SEA.
- Continue to engage with Traditional Leaders as part of the stakeholder participation process.
- Provide more information to the municipalities and potentially affected communities with respect to the socio-economic benefits of various development alternatives.
- Integrate the SEA process with the district and local level Spatial Development Frameworks.
- Re-consider the use of radio to inform the public about the process and results.

6.3 WAY FORWARD

The Draft Scoping Report will be submitted for public review and a series of stakeholder meetings will be held to discuss the issues presented. The results of the meetings and stakeholder input will be incorporated into a final Scoping Document for the SEA. The Focus Area Strategic Environmental Assessment will be introduced in late April 2005. This document will be forwarded to the appropriate Provincial, District and Local Municipal Authorities for their review and comment. Additional copies will be made available to I&APs. While this document is being reviewed and the recommendations being implemented, the consultant team will be working on the full SEA for the remainder of the Contextual Study Area. The full SEA will incorporate feedback from the Focus Area SEA and make revisions where needed. The full SEA is expected to be available for review and comment by August 2005. Additional meetings will be held with decision-makers throughout the roll-out of the SEAs to review the progress of the DSS and other products of the process. These meetings will help to inform the process throughout the project period. An SEA is a dynamic document; it is designed to be flexible and to incorporate revisions and updates as new information is made available. The WMA 12 SEA will take cognisance of this philosophy and hopefully be updated or revisited on a periodic basis.

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APPENDIX A: ISSUES AND RESPONSE TRAIL

Issue, Concerns and Comments	Raised by	Response
SEA Process		
I understand that this is an SEA. That it will be taking a strategic look at issues. What exactly will be the focus of this study?	Wilkinson, WESSA Environmental Officer in East London	Refer to Scoping Report. Forestry & alternative land uses.
Will this study focus on Forestry in particular or will it look at other issues?	Wilkinson, WESSA Environmental Officer in East London	Yes, but viable & sustainable land use options (LUO) will be investigated.
What will be the status of the SEA findings and Report?	Wilkinson, WESSA Environmental Officer in East London	Ultimately to develop a decision support system to aid decisions about forestry
Will the SEA finally provide us with a map of Preferred and Non-Preferred Areas for forestry development?	Wilkinson, WESSA Environmental Officer in East London	Yes.
To what extent will the SEA provide an overview of <i>No Go Areas</i> from a forestry development point of view?	Wilkinson, WESSA Environmental Officer in East London	Fairly definitively for the focus area, based on a Biobase survey using CPlan, and more strategic for the broader area.
A study such as this should be a challenge as a multi-disciplinary team is often required. All the best of luck to the team.	Margaret Kusambiza, Eastern Cape NGO Coalition.	Noted.
What will happen to applications and initiatives that are currently underway whilst the SEA is being developed?	Margaret Kusambiza, Eastern Cape NGO Coalition.	They will be processed as normal.
What will be the status of the SEA be in relation to the IDP of the OR Tambo District Municipality?	Aubrey Folozi, OR Tambo District Municipality	The SEA will carefully consider the IDP.
Impact on Development Planning		
To what extent will the SEA findings impact on other developments that are planned in the study area?	Wilkinson, WESSA Environmental Officer in East London	Potential for conflict might exist in areas where other viable LUO are proposed, but forestry will only be implemented if supported by the Local Municipality & local community.

Issue, Concerns and Comments	Raised by	Response
Will the SEA study take into account the existing plans in the area and be designed to fit in with the rest of the development plans in the area??	Wilkinson, WESSA Environmental Officer in EL	Yes. See above.
There are a number of development plans, policies and strategies that have been developed in the past and for the Wild Coast area in particular. These plans will have to be taken into account in the SEA development process.	Wilkinson, WESSA Environmental Officer in East London	Agreed. We are liaising closely with the Wild Coast Sustainability Project team.
Should areas for forestry development be identified it will be imperative that these be assessed against other land use plans in the area.	Wilkinson, WESSA Environmental Officer in East London	Yes, this is a primary focus of the SEA.
Sustainable livelihood options should be ensured at all times for rural communities. The SEA should then level the playing field where development can occur on a sustainable basis.	Margaret Kusambiza, Eastern Cape NGO Coalition.	Sustainability will underpin all decisions regarding LUO.
The DM has an IDP that covers the entire focus group area. To what extent will take it into consideration?	Aubrey Folozi, OR Tambo District Municipality	Recommendations and plans in the IDPs will be considered, and will help to identify LUO.
We are now busy with the Spatial Development Framework planning. Amongst others we need to take biodiversity issues into account. To what extent will this initiative be dovetailed to this SDF?	Francois Nel, Chris Hani District Municipality	To a limited extent only, but the information gathered for the SEA will be useful for the SDF.
Development Planning Integration		
The study area is very wide. There are districts such as the Amathole District which resemble a classic example of the need for development planning integration. Amathole District has a mixture of Rural and Urban environs; will these be taken into account?	Wilkinson, WESSA Environmental Officer in East London	The focus is on rural areas, but the SEA will also consider downstream benefits (e.g. saw mills) where there might be a more urban focus.
To what extent will the SEA provide solutions to the much needed integration between rural and urban communities within the study area?	Wilkinson, WESSA Environmental Officer in East London	To a limited extent, as this is not yet a focus. However, successful poverty alleviation in rural areas (a focus of the SEA) may help prevent urbanisation.
There is a need to integrate the planning of these forestry initiatives with the Provincial Growth and Development Programme of the Eastern Cape.	Ashley Westway, Border Rural Committee	Noted. This will be considered.
Rural Development Facilitation		
There is a need for a Rural Development Strategy in the province.	Ashley Westway, Border Rural Committee	Noted, but outside the scope of the SEA, although it will contribute towards this.

Issue, Concerns and Comments	Raised by	Response
We need to have initiatives that are aimed at facilitating development in the rural areas.	Ashley Westway, Border Rural Committee	Agreed, and this is a focus of the SEA.
Forestry is one of those options that are available to facilitate and act as a catalyst for rural development in the Eastern Cape.	Ashley Westway, Border Rural Committee	Agreed.
The SEA should adequately identify areas where forestry could occur but at the same time look at other development initiatives that can be harnessed by the rural communities in developing their areas and lives.	Ashley Westway, Border Rural Committee	This is exactly what the SEA intends to achieve, but at the broader (strategic) level of planning.
The emphasis that not only the forestry initiatives but all other rural based activities should have, is poverty eradication. This is very rife in rural communities and it is important that these initiatives make a contribution in that regard.	Ashley Westway, Border Rural Committee	This is a primary focus of the SEA and one of DWAF's goals.
Forestry and Agriculture are generally recognised as the preferred livelihood options for rural areas.	Ashley Westway, Border Rural Committee	Agreed, and the notion of multiple livelihood strategies will be considered.
Job Creation Opportunities		
Forestry can be labour intensive, and has the ability to create jobs where they are much needed.	Wilkinson, WESSA Environmental Officer in East London	Agreed, hence its suitability for poverty alleviation in rural areas.
We need to balance the need for creating commercially efficient forestry initiatives to job creation through labour intensive methods in areas where technical skill is a rare commodity.	Wilkinson, WESSA Environmental Officer in East London	Agreed. The “outgrower schemes” in KZN are useful models to build on.
The SEA should provide for labour to be drawn from local communities as much as possible in these forestry initiatives, as employment of local communities is key in initiatives such as these.	Wilkinson, WESSA Environmental Officer in East London	This is the intention of any forestry intervention.
Pressure for Development in Conservation Areas		
There seems to be a lot of pressure for development in the conservation areas e.g. the Wild Coast.	Wilkinson, WESSA Environmental Officer in East London	Agreed, and an opportunities & constraints analysis is an important component of the SEA.
Various Government Departments including Developers and Parastatals seem to be putting a lot of pressure for development in the conservation worthy areas. This is a concern to the Wildlife and Environment Society of South Africa.	Wilkinson, WESSA Environmental Officer in East London	Agreed. Forestry will not be recommended in areas of high conservation value.

Issue, Concerns and Comments	Raised by	Response
Biodiversity Issues		
To what extent will this study objectively look at areas of conservation value?	Wilkinson, WESSA Environmental Officer in East London	Using all available databases, and a CPlan for the focus area. Refer to Scoping Report
There needs to be careful consideration of Centres of high diversity within the study area.	Wilkinson, WESSA Environmental Officer in East London	Noted and to be considered.
Once specific areas where forestry can be done are identified, Project Specific Studies should be done. In other words the SEA should not provide a blanket authorisation or exemption from authorisation.	Wilkinson, WESSA Environmental Officer in East London	Noted. The framework and process for site specific studies is being considered in the SEA.
These project specific studies should look at potential impact on biodiversity and impact on other land uses in that area.	Wilkinson, WESSA Environmental Officer in East London	See above.
Biodiversity Compensation		
Compensation should be looked where significant loss to biodiversity is sustained, in order to encourage Responsible Corporate Practice.	Wilkinson, WESSA Environmental Officer in East London	The systematic conservation plan should inform the issue of losses to biodiversity.
Potential Impact on River Courses and Wetlands		
This is a major issue for WESSA.	Wilkinson, WESSA Environmental Officer in East London	Noted. The potential impacts to rivers and wetlands are being considered in the SEA.
Often forestry developments do not take natural river courses into account.	Wilkinson, WESSA Environmental Officer in East London	Noted. See above.
Wetlands and River Courses serve a vital role in the ecosystem and the SEA study needs to identify and red-flag these issues and areas.	Wilkinson, WESSA Environmental Officer in East London	Noted. See above.
The SEA ought to identify no-go areas for forestry too, such as wetlands and disruption of natural river courses.	Wilkinson, WESSA Environmental Officer in East London	Noted. One of the goals of the SEA is to target areas NOT suitable for new development.
Public Participation Process		
What role are we expected to play in this process?	Ashley Westway, Border Rural Committee	To provide input and comments on draft documents. See section 1.4 of Scoping Report.

Issue, Concerns and Comments	Raised by	Response
We would like to be kept in the loop as we are interested in seeing the final outcome.	Ashley Westway, Border Rural Committee	Noted.
You should be keeping us abreast of the developments as they emerge. We would be keen to comment on the Draft Scoping Report, but you must give us sufficient time.	Wilkinson, WESSA Environmental Officer in EL	Noted.
An extensive public participation process will be required for a comprehensive study such as this one.	Margaret Kusambiza, Eastern Cape NGO Coalition.	Noted. See section 1.4 of the Scoping Report for a description.
There should be continuous and ongoing community involvement in this study from the beginning to the completion of the study.	Margaret Kusambiza, Eastern Cape NGO Coalition.	Noted. See above.
The public participation team should ensure that communities are empowered in order to meaningfully participate in this study.	Margaret Kusambiza, Eastern Cape NGO Coalition.	Noted. This issue has been raised to the client (DWAF).
Information should be tailored for rural communities in a manner that is accessible and reader friendly for them.	Margaret Kusambiza, Eastern Cape NGO Coalition.	The background information document is published in English and Xhosa. The use of radio is also being considered.
In facilitating discussion care should be given to the fact that most rural communities are not educated and their level of exposure to sophisticated socio-economic means of living is limited.	Margaret Kusambiza, Eastern Cape NGO Coalition.	Noted.
Meetings should be spread across the areas that are affected. It is important that as many communities as possible be reached through this process.	Margaret Kusambiza, Eastern Cape NGO Coalition.	Meetings are being scheduled throughout the study area. Attempts to be as inclusive as possible are being made.
Meetings should also be held in times that are convenient to the local communities. Often consultants will convene meeting at times that do not suit the local communities.	Margaret Kusambiza, Eastern Cape NGO Coalition.	Noted. See above.
The process should take with it the issues, needs and desires of people in this DM.	Aubrey Folozi, OR Tambo District Municipality	Noted.
Secondary and Cumulative Impacts		
Cumulative impacts that forestry initiatives cause should be looked at.	Wilkinson, WESSA Environmental Officer in East London	Noted. Downstream and cumulative impacts are being considered in the SEA.
Often when impact assessments are done for such developments, there is no careful consideration of other project non-related impacts. Secondary and cumulative impacts are barely looked at.	Wilkinson, WESSA Environmental Officer in East London	Noted. However, the SEA will not look at site specific impacts, but cumulative sector impacts are being considered.

Issue, Concerns and Comments	Raised by	Response
Forestry initiatives, like any other development can change the lives of rural communities. The SEA should outline parameters and perhaps guidelines to be used in the project application stage. These guidelines should include an evaluation of lost opportunity cost for other land uses that were and could have been available to those communities.	Wilkinson, WESSA Environmental Officer in East London	Noted. The SEA is evaluating opportunity costs of selected alternative land uses. The DSS will provide a framework for comparative analysis.
Development Infrastructure Requirements		
Is availability of infrastructure in an area a criteria used when assessing potentially forestry worthy areas?	Wilkinson, WESSA Environmental Officer in East London	Yes. See section 3.4 of the Scoping Report.
Is the availability of roads network, rail, energy etc. one of the criteria used in assessing the worthiness for forestry harvesting of an area?	Wilkinson, WESSA Environmental Officer in East London	Yes. See section 3.4 of the Scoping Report.
If so, the impact that road construction will have should also be looked at.	Wilkinson, WESSA Environmental Officer in East London	Noted.
The impact that trucks will have as they carry wood and any material to and from the plant should be wholly assessed.	Wilkinson, WESSA Environmental Officer in East London	Noted. However, project level impacts are not being addressed in the SEA.
We support the upgrade of infrastructure in the Eastern Cape.	Wilkinson, WESSA Environmental Officer in East London	The SEA should help to inform the process of infrastructure planning and development in the region.
Ownership and Management Issues		
Current ownership and management methods that are used for these facilities are a concern to us.	Ashley Westway, Border Rural Committee	The ownership/management structure of new development is a consideration in the DSS.
There is limited rural local beneficiation except for jobs and limited skills development in these initiatives.	Ashley Westway, Border Rural Committee	The transfer of skills is a consideration in the DSS.
Future management structures should look at more community involvement and participation.	Ashley Westway, Border Rural Committee	Community involvement is a consideration in the DSS.
Massive community participation in ownership should also be investigated in line with the Broad-Based Black Economic Empowerment Act.	Ashley Westway, Border Rural Committee	Compliance to the BEE requirements is a consideration in the DSS.

Issue, Concerns and Comments	Raised by	Response
Public Private Partnerships should be a must in initiatives such as these.	Ashley Westway, Border Rural Committee	Potential economic models, including private/public partnerships are being evaluated.
Public Private Partnerships are more likely to eradicate poverty.	Ashley Westway, Border Rural Committee	Noted. See above.
Community Benefits		
Forestry has the potential to deliver the most opportunities and benefits to rural communities.	Ashley Westway, Border Rural Committee	Noted. This statement is being tested against other potential alternatives in the SEA.
We should maximise benefits to local communities in these initiatives at all times.	Ashley Westway, Border Rural Committee	Noted. The cost versus benefits of different alternatives is being considered.
It is important that the SEA sets a clear tone for mechanisms to maximise local community beneficiation in these initiatives.	Ashley Westway, Border Rural Committee	The potential for community improvement is a driving factor in the SEA.
Benefits to communities should include training and job creation.	Ashley Westway, Border Rural Committee	Skills transfer is an important component of the DSS.
It is important that the SEA should provide a set of rules that facilitate maximum local community beneficiation including skills development and transfer.	Ashley Westway, Border Rural Committee	Noted. However, the SEA can only recommend programmes to be put into place. It has no authority to impose conditions.
Activities such as forestry have the potential to yield maximum benefits for communities and yet at times they are major exploiters of local communities.	Margaret Kusambiza, Eastern Cape NGO Coalition.	Noted. Equitable distribution of benefits is a goal of the DSS.
Projects and initiatives that have the potential to benefit local communities are often highly politicised. This tendency should be watched as it can be harmful to the process.		Noted.
Institutional and Capacity Building		
Currently the responsibility for Local Authority Institution Building rests with the DMs and National Government.	Ashley Westway, Border Rural Committee	The DSS is designed to support decision-making at the DM and LM levels.
There is limited private sector involvement and participation in institution building in the Eastern Cape.	Ashley Westway, Border Rural Committee	Noted. It is hoped the SEA will increase private sector involvement in the EC.

Issue, Concerns and Comments	Raised by	Response
The SEA should deliver a set of recommendations that should level the playing field for greater private involvement in institution building.	Ashley Westway, Border Rural Committee	Noted. Recommendations will be provided in the SEA.
The forestry sector should be made to take the lead in both the capacity and institution building of Local Authorities in the Eastern Cape.	Ashley Westway, Border Rural Committee	Noted. This recommendation will be carried to the industry.
Land Rights Issues		
The Communal Land Rights Bill allows for a much more involved role and participation in the determination of land use when it comes to rural communities.	Ashley Westway, Border Rural Committee	Noted. The Communal Land Rights Bill requirements are incorporated into the logic of the DSS.
Issues related to land rights including ownership, benefits i.e. lost and accumulated, and access should be carefully examined as part of this study.	Ashley Westway, Border Rural Committee	Noted. The general issue of land rights and ownership is being assessed as part of the SEA. Specific examples will not be commented on.
Communities should also be made aware of their rights as part of this process.	Margaret Kusambiza, Eastern Cape NGO Coalition.	The stakeholder participation process should assist in this regard. However, the primary responsibility falls to the EC Dept of Land Affairs.
In planning developments in general we should respect community rights with respect to land and land use in general.	Aubrey Folozi, OR Tambo District Municipality	Noted. The SEA seeks to inform the planning process.