GOVERNMENT GAZETTE
OF THE
REPUBLIC OF NAMIBIA

WINDHOEK – APRIL 2008

CONTENTS

GOVERNMENT NOTICE

MINISTRY OF ENVIRONMENT AND TOURISM

NO. 2008

Procedures and Guidelines for Strategic Environmental Assessment (SEA) and Environmental Management Plan (EMP)

PROCEDURES MADE UNDER PART II OF THE REGULATIONS FOR STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) AND ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

The Minister has, Under Part X: General Provisions, Section 56 of the Environmental Management Act, 2007, (Act No.7 of 2007, made the Regulations for Strategic Environmental Assessment and Environmental Impact Assessment (EIA), Government Notice *No. 1 and the Procedures and Guidelines as set out in this Document*

Definitions

This document is a procedure and guideline document and serves as a reference and supportive text only and cannot take the place of legal advice in a specific situation governed by legislation. This document will not take the place of any regulations published by Directorate of Environmental Affairs, Ministry of Environment and Tourism.

Issued by

The Directorate of Environmental Affairs; Ministry of Environment and Tourism
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WINDHOEK
NAMIBIA

Available on the Ministry of Environment and Tourism web site:
http://www.met.gov.na

Written By

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Disclaimer

Citation

Directorate of Environmental Affairs, 2008. Procedures and Guidelines for Strategic Environmental Assessment (SEA) and Environmental Management Plan (EMP), Directorate of Environmental Affairs, Ministry of Environment and Tourism, Windhoek.

Contents

BACKGROUND TO THIS DOCUMENT

1. “The State shall actively promote and maintain the welfare of the people by adopting policies aimed at ...

   The maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future...” [Constitution of the Republic of Namibia - Article 95 (1)].

2. The Environmental Management Act sets out the following principles of environmental management:

   (i) Renewable resources must be used on a sustainable basis for the benefit of present and future generations;

   (ii) community involvement in natural resources management and the sharing of benefits arising from the use of the resources, must be promoted and facilitated;

   (iii) the participation of all interested and affected parties must be promoted and decisions must take into account the interest, needs and values of interested and affected parties;

   (iv) equitable access to environmental resources must be promoted and the functional integrity of ecological systems must be taken into account to ensure the sustainability of the systems and to prevent harmful effects;

   (v) assessments must be undertaken for projects which may have a significant effects on the environment or the use of natural resources;

   (vi) sustainable development must be promoted in all aspects relating to the environment;

   (vii) Namibia's cultural and natural heritage including, its biological diversity, must be protected and respected for the benefit of present and future generations;

   (viii) the option that provides the most benefit or causes the least damage to the environment as a whole, at a cost acceptable to society, in the long term as well as in the short term must be adopted to reduce the generation of waste and polluting substances at source;

   (ix) the reduction, re-use and recycling of waste must be promoted;

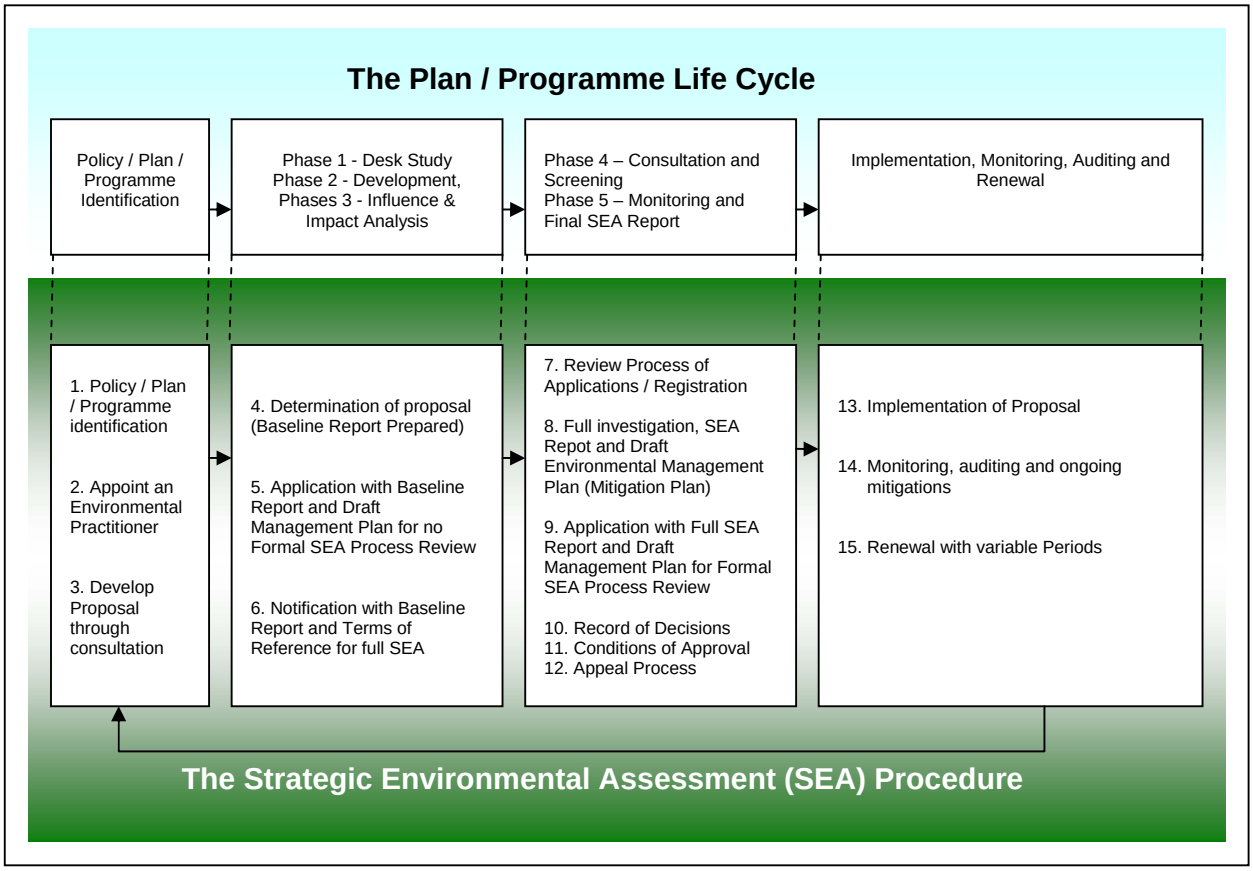
   (x) a person who causes damage to the environment must pay the costs associated with rehabilitation of damage to the environment and to

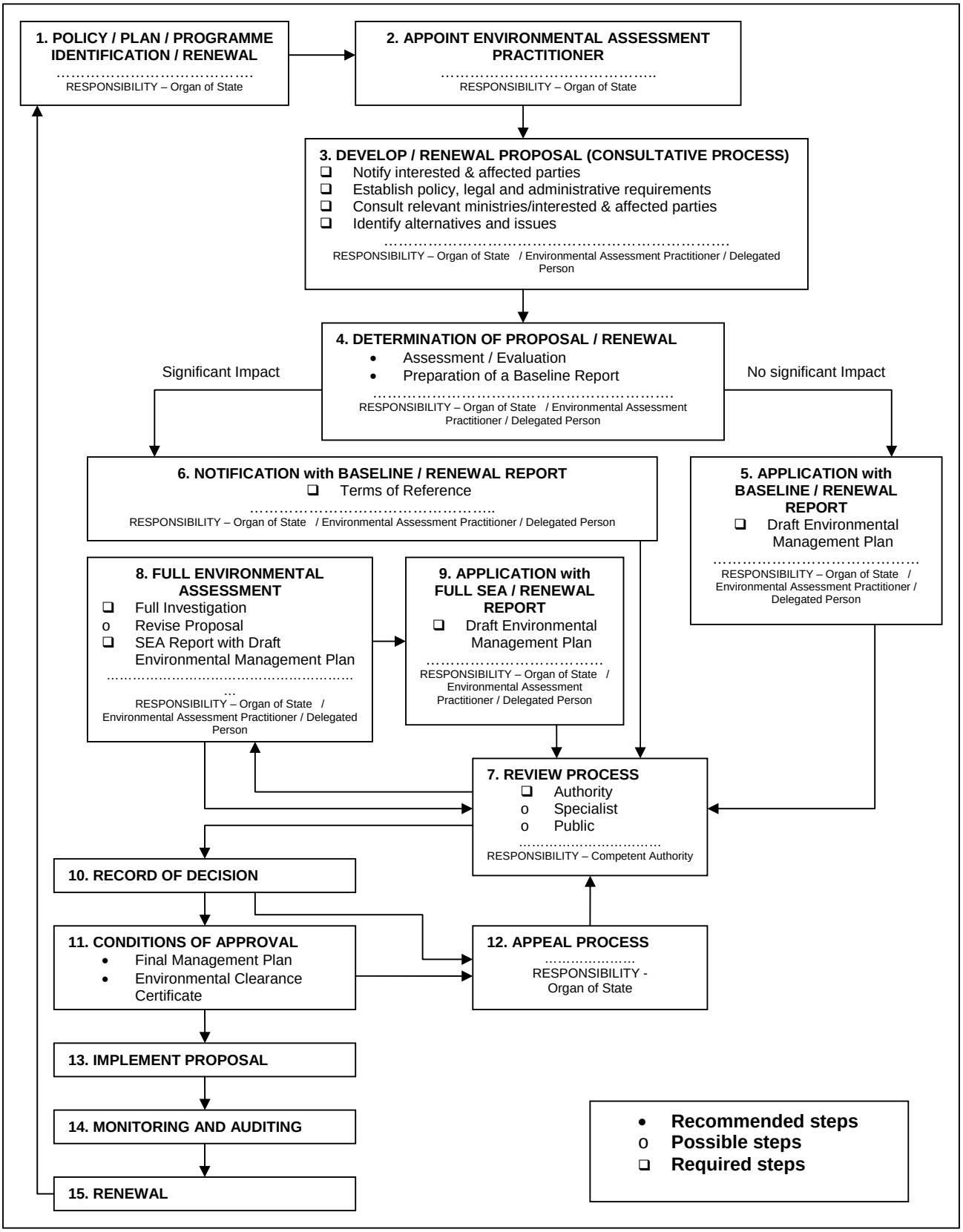
human health caused by pollution, including costs for measures as are reasonably required to be implemented to prevent further environmental damage;

(xi) where there is sufficient evidence which establishes that there are threats of serious or irreversible damage to the environment, lack of full scientific certainty may not be used as a reason for postponing cost-effective measures to prevent environmental degradation; and

(xii) damage to the environment must be prevented and activities which cause such damaged must be reduced, limited or controlled.

PART 1: PROCEDURES FOR PLANS AND PROGRAMMES - STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA)

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2. APPOINT ENVIRONMENTAL ASSESSMENT PRACTITIONER
RESPONSIBILITY – Organ of State
3. DEVELOP / RENEWAL PROPOSAL (CONSULTATIVE PROCESS)
❑ Notify interested & affected parties
❑ Establish policy, legal and administrative requirements
❑ Consult relevant ministries/interested & affected parties
❑ Identify alternatives and issues
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• Preparation of a Baseline Report
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❑ Terms of Reference
RESPONSIBILITY – Organ of State / Environmental Assessment Practitioner / Delegated Person
5. APPLICATION with BASELINE / RENEWAL REPORT
❑ Draft Environmental Management Plan
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8. FULL ENVIRONMENTAL ASSESSMENT
❑ Full Investigation
o Revise Proposal
❑ SEA Report with Draft Environmental Management Plan
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9. APPLICATION with FULL SEA / RENEWAL REPORT
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o Public
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10. RECORD OF DECISION
11. CONDITIONS OF APPROVAL
• Final Management Plan
• Environmental Clearance Certificate
12. APPEAL PROCESS
RESPONSIBILITY - Organ of State
13. IMPLEMENT PROPOSAL
14. MONITORING AND AUDITING
15. RENEWAL
• Recommended steps
o Possible steps
❑ Required steps

STAGE 1: POLICY / PLAN / PROGRAMME IDENTIFICATION / RENEWAL

The implementation of a policy framework is usually the beginning of any plan or programme by the Organ of State such as the Line Ministry, Parastatals, Agencies, Regional or Local Authority. During the identification stage the organ of state shall determine whether or not a policy, plan, programme or modification to plan or programme is likely to have significant environmental impacts.

The responsibilities for identifying / renewal/ revision of policy / plan / programme rest with the Organ of State to make sure that all the provisions of the Environmental Management Act, the Regulations for environmental assessment and management, Procedures for Environmental Assessment and Management and the Guidelines for Environmental Assessment and Management are followed.
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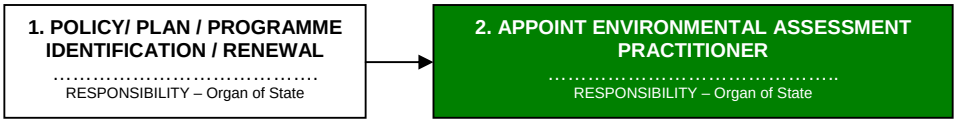
STAGE 2: APPOINTMENT OF AN ENVIRONMENTAL ASSESSMENT PRACTITIONER

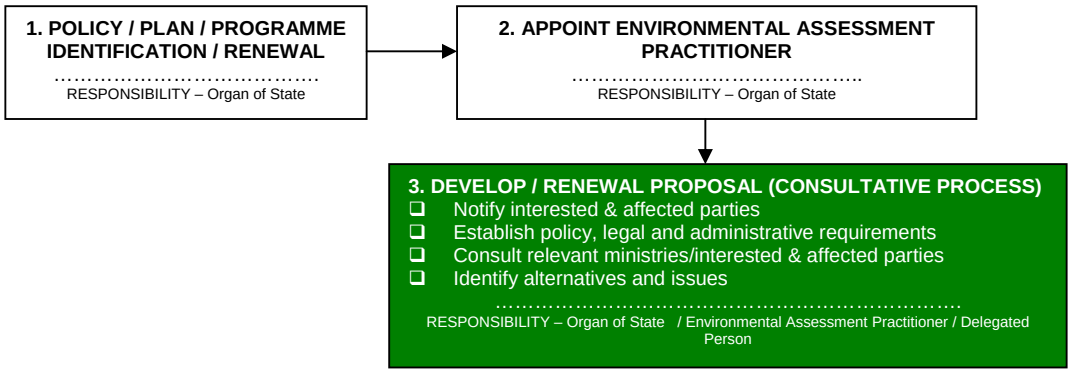


Once the policy / plan / programme has been identified the next stage to decide on who will develop the proposal. The aim of developing / renewal of a proposal is to have a clear communicable document setting out what exactly is proposed and need to be done and where etc. The Organ of State has two choice and these are:

(i) Appoint an independent qualified and experienced environmental assessment practitioner;
(ii) Appoint a qualified and experienced person within the structure of the organ of state.

It is the responsibility of the Organ of State to appoint a qualified and experienced person and to submit the name to the competent authority and to make sure that all the provisions of the Environmental Management Act, the Regulations for environmental assessment and management, Procedures for Environmental Assessment and Management and the Guidelines for Environmental Assessment and Management are followed.

STAGE 3: DEVELOP / RENEW A POLICY / PLAN / PROGRAMME



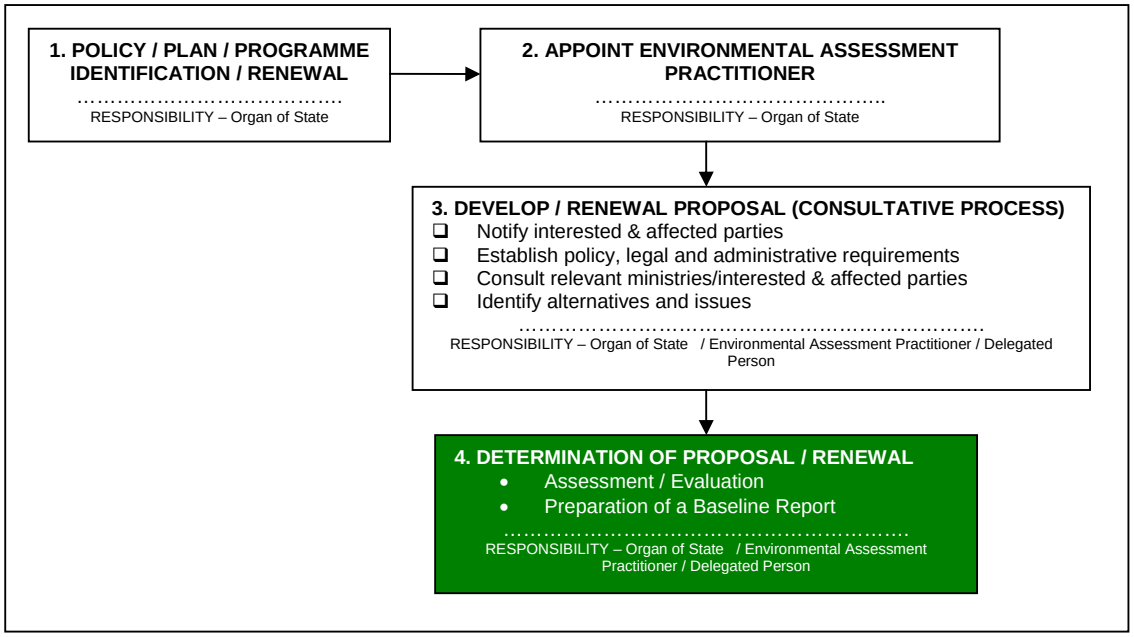
This stage involves the development of the proposal by collecting all the relevant baseline information. Baseline information provides the basis for predicting and monitoring environmental effects and helps to identify environmental problems and alternative ways of dealing with them. Sufficient information about the current and likely future state of the environment should be collected to allow the likely environmental impacts of the proposed policy / plan / programme to be adequately predicted. Other issues to be included are alternatives, affected parties, potential impacts and benefits, issues, mitigatory and optimisation possibilities. Furthermore, specific framework which clearly spells out roles, responsibilities and procedures should be established.

The Organ of State / appointed person to starts the process of developing a policy / plan / programme through a consultative process. A clear definition of a policy / plan / programme is prepared in order to:

(i) Established the linkages of the proposed policy / plan / programme to the policy, legal and administrative requirements;
(ii) Engage all the relevant stakeholders such as other line Ministries, Regional Councils, Local Authorities, neighbours and other interested and affected parties;
(iii) Establish the need for the development, and evaluate this against local, national and international needs on various time scale-s;
(iv) Identify alternative and issues;
(v) Consider local and transboundary secondary and cumulative effects within and beyond the region;
(vi) Identify and consider issues, opportunities and constraints of alternatives;
(vii) Consider fatal flaw and risk analyses, and worst case scenarios,
(viii) Consider mitigatory options;
(ix) Consider management plan options;

It's the responsibility of the Organ of State / environmental assessment practitioner / person to make sure that all the provisions of the Environmental Management Act, the Regulations for environmental assessment and management, Procedures for Environmental Assessment and Management and the Guidelines for Environmental Assessment and Management are followed.

STAGE 4: DETERMINATION OF PROPOSAL / RENEWAL

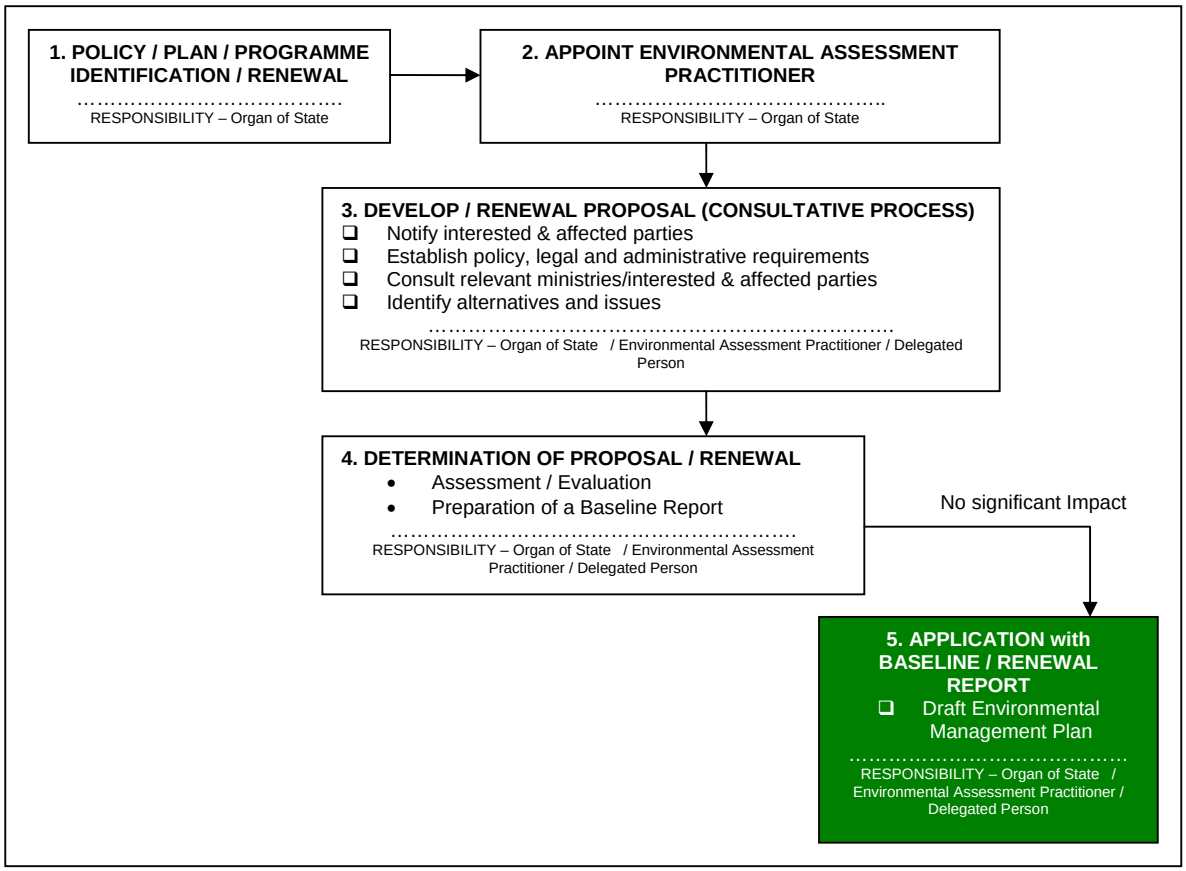


Based on all the information collected during the early stages including the consultative Stage 3 of the policy / plan / programme development the organ of state / environmental assessment practitioner / person will determine whether the plan / programme will have:

(i) Significant impacts; or
(ii) No significant impact.

The determination process will consider all possible or likely scenarios and alternatives based on the baseline data collected. A draft baseline / renewal report must be prepared with a draft environmental management plan (no significant impact) or with the terms of reference (significant impact).

STAGE 5. APPLICATION (NO SIGNIFICANT IMPACT)

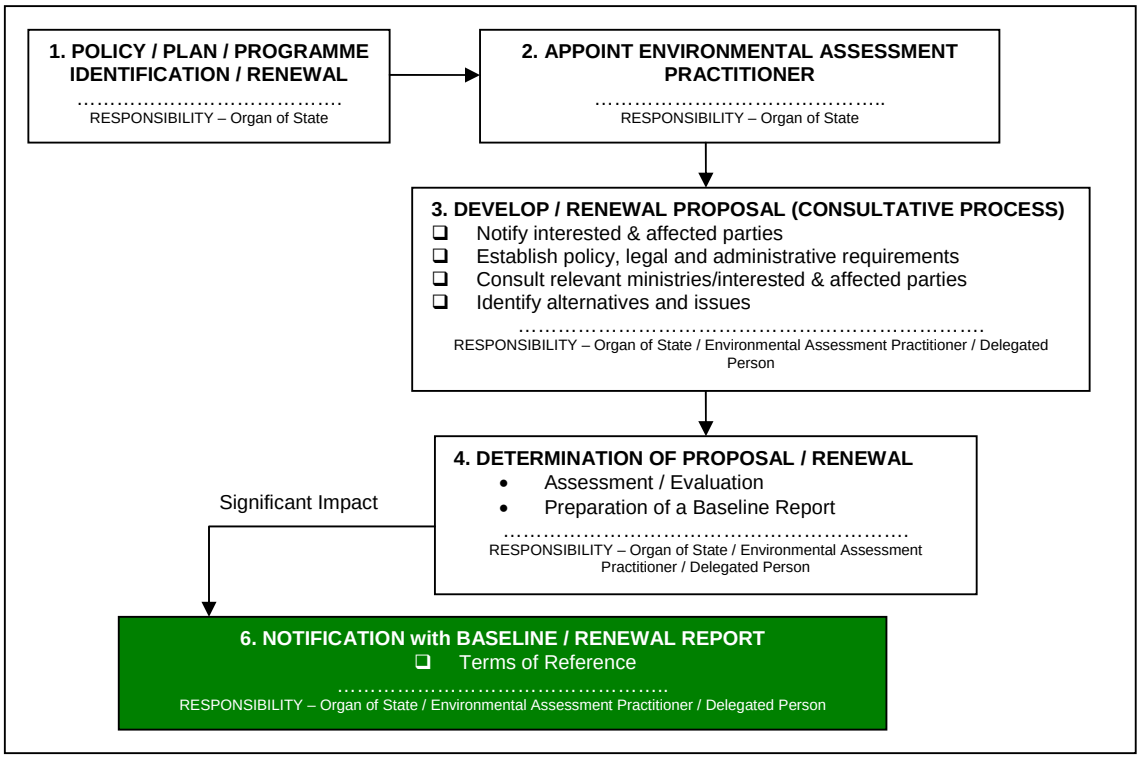


The application Stage 5 is the first stage at which the Organ of State formally contacts the competent authority for an Environment Clearance Certificate for the proposed policy / plan / programme determined to have no significant environmental impacts. The list of policies/ plans and programmes subject to an Environmental Assessments in accordance with the provisions of the Act and the Regulations, should be used to guide this decision. If it is felt that the policy / plan / programme is not likely to result in significant impacts and/or that sufficient plans to maximise benefits have already been included, there will be no need for a formal environmental assessment. The Organ of State / environmental assessment practitioner / person must submit the following:

(i) A Formal Application for issuing of Strategic Environmental Assessment Clearance Certificate;
(ii) Application Fees Two Thousand Namibian Dollars (N$2000.00)
(iii) A Baseline Report about the proposed policy / plan / programme;
(iv) A Draft Environmental Management Plan.

The competent authority shall review the application and revert to Organ of State in writing within thirty (30) working days from the day of the application submission/ resubmission.

STAGE 6. NOTIFICATION (SIGNIFICANT IMPACT)

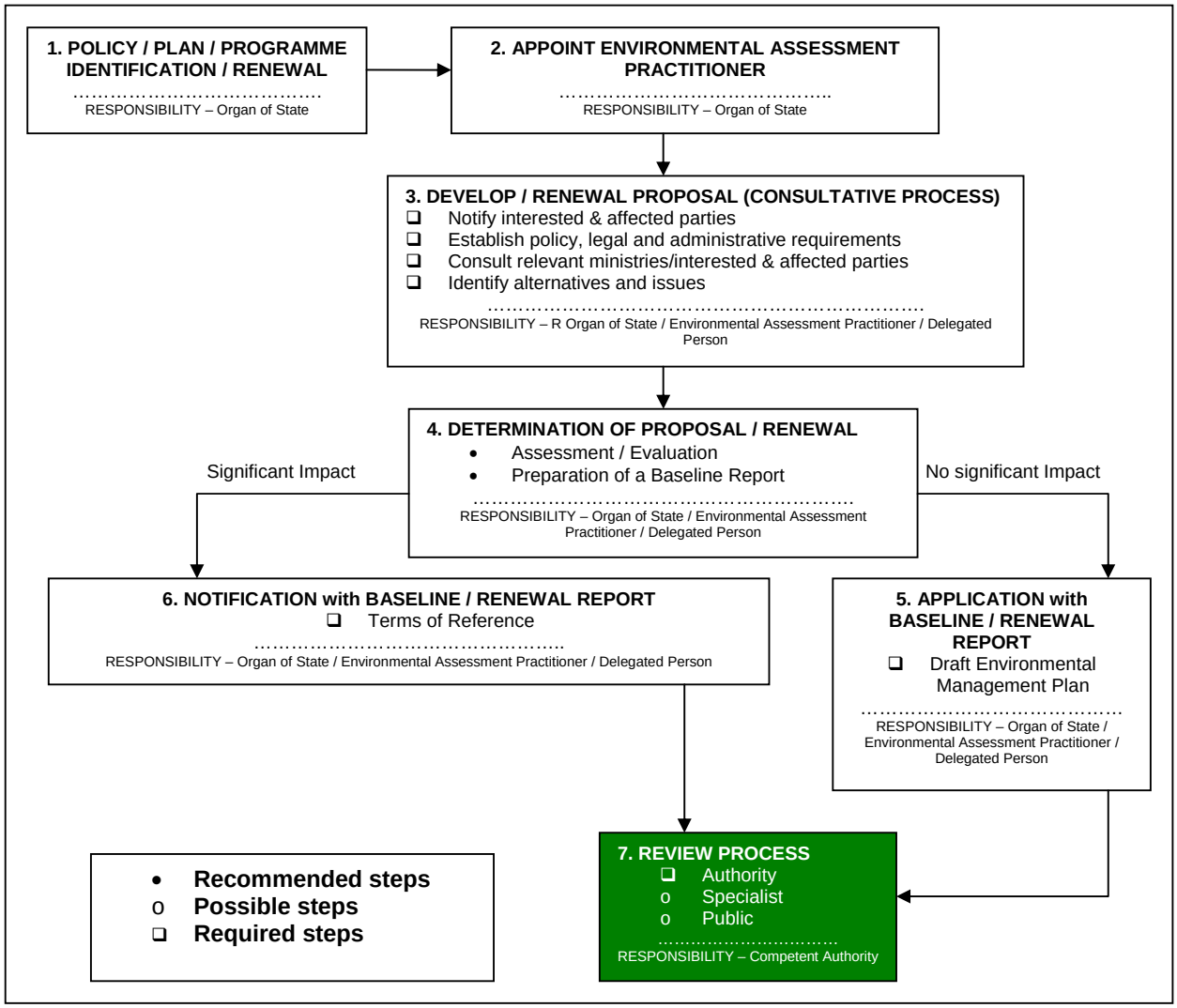


The notification Stage 6 is the first stage at which the Organ of State formally contacts / notices the competent authority for the intentions to undertake a full SEA for a proposed policy / plan / programme determined to have significant impacts. The list of policies/ plans and programmes subject to an Environmental Assessments in accordance with the provisions of the Act and the Regulations, should be used to guide this decision. The Organ of State / Environmental Assessment Practitioner / Person must submit the following:

(i) A Formal Notification Form for the Intentions to implement a Strategic Environmental Assessment (SEA) for proposed policy / plan / programme;
(ii) Notification Fee of One thousand Five Hundred Namibian Dollars (N$1500.00);
(iii) A Baseline Report about the proposed policy / plan / programme;
(iv) A Draft Environmental Management Plan;
(v) Terms of Reference for a full SEA study.

The competent authority shall review the registration and revert to Organ of State within thirty working days from the day of the notification submission / resubmission.

STAGE 7. REVIEW PROCESS



The review stage is very important for both the application (no significant impact policy / plan / programme proposal) and the notification (significant impacts policy / plan / programme proposal). For the application and the notification under the significant and / or no significant impacts policy / plan / programme proposals respectively, the review process is done by the competent authority, which may forward the application or the notification to a specialist for review or invite the public for comments.

From the review process the application for policy / plan / programme proposals may have one of the following outcomes:

(i) Record of decisions that is positive for the Organ of State (approved);
(ii) Record of decisions that is negative for the Organ of State (not approved) and the Organ of State may appeal the record of decisions;

(iii) Record of decisions that recommends the application shall go for notification for a full SEA or amendments as the case may be.

For policy / plan / programme proposals with significant impacts, the notification form and fee together with baseline report and the terms of references must be submitted to the competent authority for review. The competent authority will review the documents with the assistance of local and/or outside experts, sector ministries, and any other organisations/individuals as considered necessary. The cost of external review shall be borne by the Organ of State. The recommendations and final decisions of the competent authority shall be recorded and made known to the Organ of State within thirty (30) days working days from the day of the submission / resubmission.

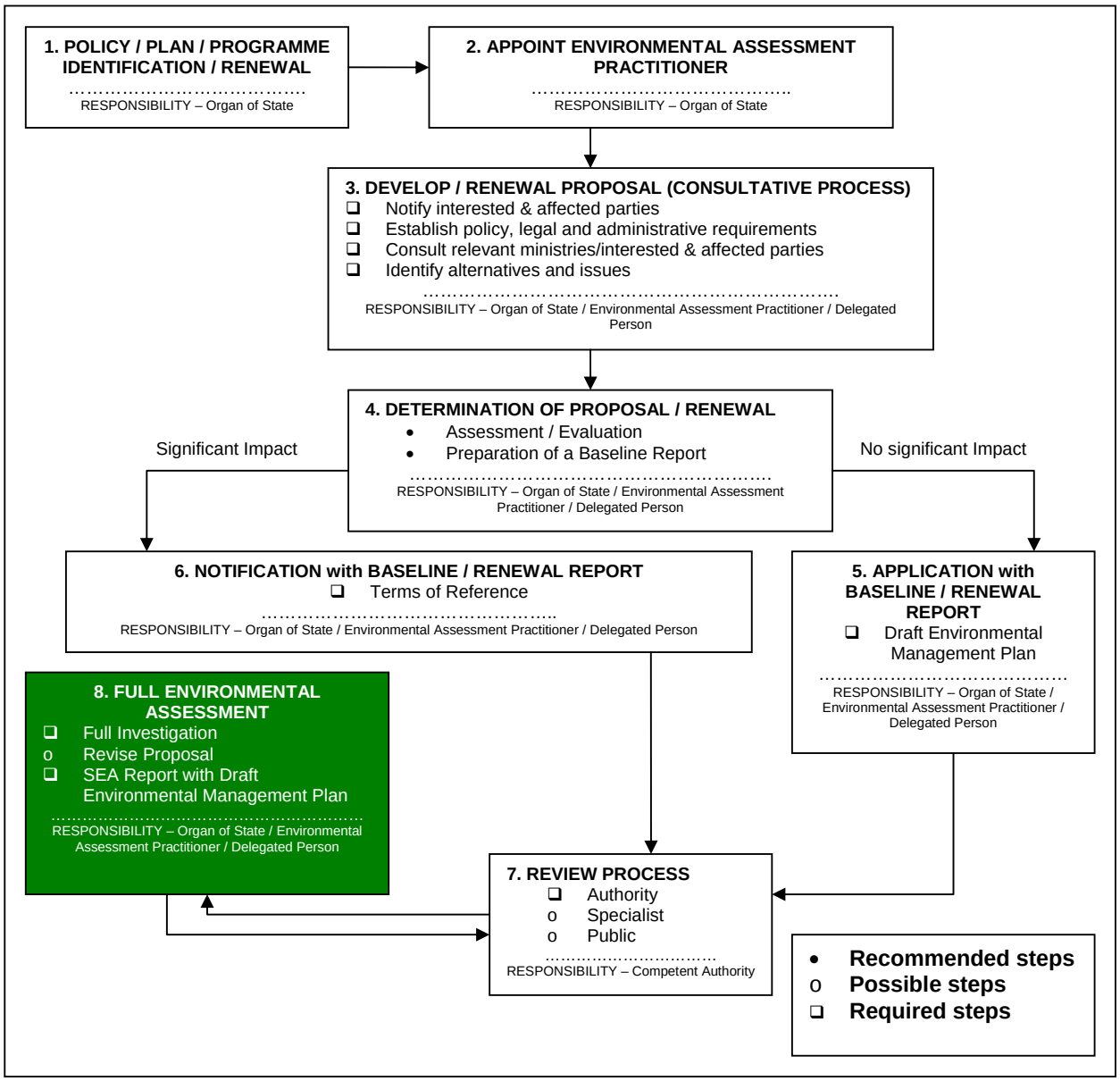
From the review process the for policy / plan / programme proposals with significant impact, the notification may have one of the following outcomes:

(i) Record of decisions that is positive for the Organ of State (approved) to undertake the full SEA;
(ii) Record of decisions that is negative for the proponent (not approved) and the proponent may be requested to change the terms of reference or what ever the case may be before implementing the full SEA;
(iii) Record of decisions that recommends the notification not to go for a full SEA but an application for Environmental Clearance Certificate.

The following are the guidance period required by the competent authority for the review process:

(i) The competent authority shall review a *notification* and revert to Organ of State in writing within thirty (30) working days from the day of the notification submission / resubmission;
(ii) The competent authority shall review the *application* and revert to Organ of State in writing within thirty (30) working days from the day of the application submission / resubmission.

STAGE 8. FULL STRATEGIC ENVIRONMENTAL ASSESSMENT



It should become clear during the notification or classification stages of proposal whether there will be significant impacts and if a full SEA will be necessary or not. Where a full SEA is required there are three main components to all SEA that need to be followed and these are:

(a) Scoping;
(b) Investigation including specialist involvement; and
(c) The preparation of the Report done in accordance with the provisions of the SEA guideline shown in Part 2 of this document.

(i) Scoping involves the review or build on the baseline report prepared during the early stage of the policy / plan / programme development. This determines the extent of and approach to the investigation and should

endorse the Terms of Reference established earlier. The Organ of State (and his/her consultant), in consultation with the competent authority, other relevant sector specific authorities, interested and affected parties, determine which alternatives and issues should be investigated the procedural framework that should be followed, and report requirements. It is the responsibility of the Organ of State to ensure that all the above is given adequate opportunity to participate in this process.

The Scoping process should indicate or confirm the following:

- the authorities and public that are likely to be concerned and affected;
- methods to be used in informing and involving concerned and affected parties;
- opportunities for public input;
- specific reference to disadvantaged communities regarding the proposed policy / plan / programme;
- the use of advisory groups and specialists;
- the composition of the EA team and their Terms of Reference;
- the degree of confidentiality required.

If the proposal is likely to affect people, the proponent should consider the following guidelines in the scoping process:

- the location of the development in relation to interested and affected parties, communities or individuals;
- the number of people likely to be involved;
- the reliance of such people on the resources likely to be affected, -the resources, time and expertise available for scoping;
- the level of education and literacy of parties to be consulted;
- the socio-economic status of affected communities;
- the level of organisation of affected communities;
- the degree of homogeneity of the public involved;
- history of any precious conflict or lack of consultation;
- social, cultural or traditional norms within the community;
- the preferred language used within the community.

(ii) Investigation

The investigation includes literature research and field work, and is guided by the scoping decisions. It is intended to provide the Organ of State / Environment Assessment Practitioner / delegated person with enough information on the positive and negative aspects of the proposal, and feasible alternatives, with which to make a decision.

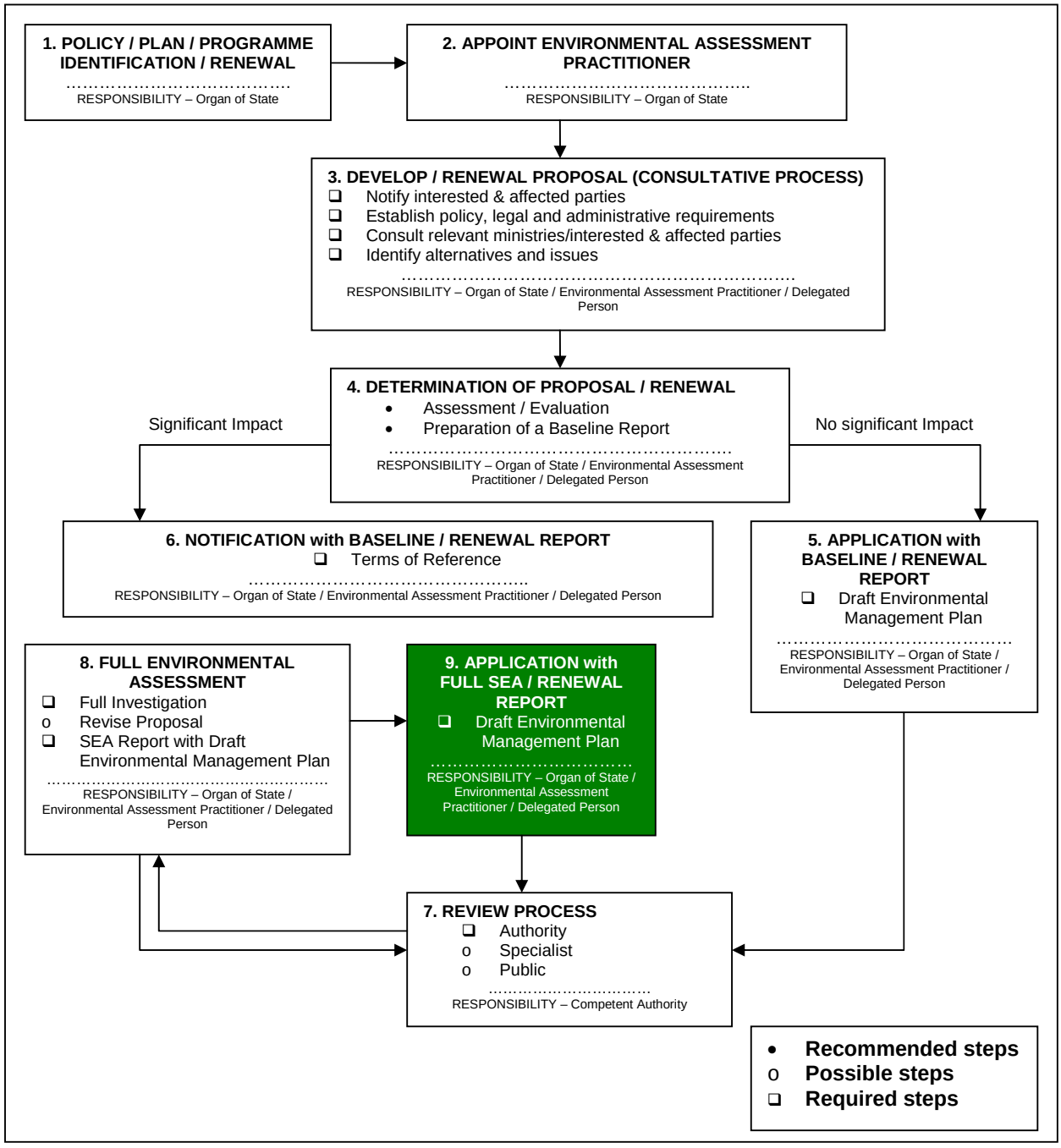
(iii) Report

In deciding the length and the level of detail to be provided in an Environmental Report, the Organ of State should bear in mind its purpose as a public consultation document. It is likely to be of interest to a wide variety of readers, including decision-makers, other policy / plan / programme -making practitioners, statutory NGOs, and members of the public. It should be written and prepared with this

range of users in mind, and should include a non-technical summary covering the general outline as shown in Part 2 of this document, Annex 8.2.

A Quality Assurance checklist is provided under Part 2 of this document, Annex 8.3, to help Organ of State ensure that the quality of the report is sufficient to meet the requirements and provisions of the Act and the Regulations.

STAGE 9. APPLICATION (SIGNIFICANT IMPACTS)



Once the full SEA (See guideline Part 2 of this Document on how to undertake a full SEA) has been completed an application for an Environmental Clearance Certificate is submitted to the competent authority. The following documents must be submitted to the competent authority:

(i) A Completed Formal Application Form for Issuing of an Environment Clearance Certification;
(ii) Application Fee of Two Thousand Namibian Dollars (N$2000.00);
(iii) A Full Strategic Environmental Assessment Report about the proposed policy, plan, programme;
(iv) A Draft Environmental Management Plan (EMP).

From the review process the application for the policy, plan, programme proposals with significant impact may have one of the following outcomes:

(i) Record of decisions that is positive for the Organ of State (approved);
(ii) Record of decisions that is negative for the proponent (not approved) and the proponent may appeal the record of decisions;
(iii) Record of decisions that recommends the application to go for specialist opinion or amendments of the full SEA.

The competent authority shall review the application and revert to Organ of State in writing within thirty (30) working days from the day of the application submission / resubmission.

If a proposed policy / plan / programme is unlikely to result in significant impacts, and plans for maximising benefits are adequate, then the proposal can proceed without an EA. In the unlikely event of strong opposition to the development at this late stage, the competent authority could solicit further opinions from specific ministries, specialists, interested and affected parties and the general public. Based on the response, the policy / plan / programme proposal together with the baseline report and draft environmental management plan are either sent back for more information (especially if there is serious uncertainty or significant information gaps), or approval to proceed is confirmed.

One of the key and important documents that need to be very clear in the situation where a formal assessment is not required is the Environmental Management Plan (EMP).

STAGE 10. RECORDS OF DECISIONS

Whether or not a proposal is approved, there should be a record of decision, which should include reasons for the decision. This Record of Decision should be made available by the competent authority to any interested party, including the public. Any Conditions of Approval must be reflected in the Record of Decision.

STAGE 11. CONDITION OF APPROVAL

Once a proposed policy / plan / programme has been approved, the competent authority, in consultation with the Organ of State, may set a number of conditions including renewal periods where applicable. Such conditions may provide for the establishment of an environmental management plan, which specifies tasks to be undertaken in the construction, operational and decommissioning phases of the development. By mutual agreement, a monitoring strategy and audit procedure will be determined at this early stage so that the Organ of State can make the necessary budgetary provisions well in advance. Provision is also made for an Environmental Clearance Certificate, whereby penalties for not adhering to the Conditions of Approval are agreed upon.

STAGE 12. APPEAL PROCESS

The decision making process provides an opportunity for appeal through the Minister. Besides appealing to the decision-making authority, appellants have the right to a court of law with the provisions of the Act and if malpractice is suspected.

STAGE 13. IMPLEMENTATION OF PROPOSAL

Once approved, the proposed policy / plan / programme may be implemented in accordance with the Conditions of Approval for issuing the Environmental Clearance Certificate

STAGE 14. MONITORING AND AUDITS

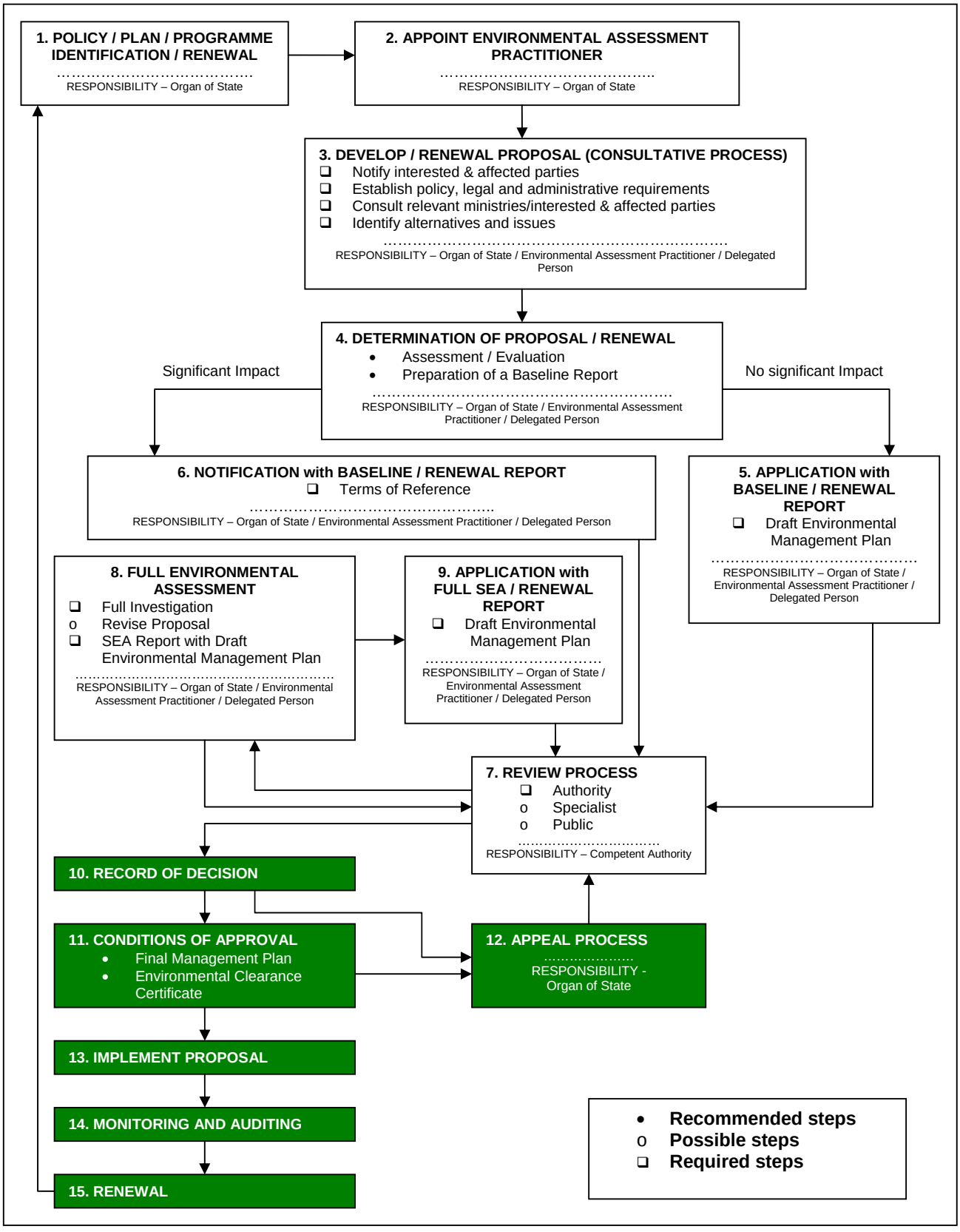
Appropriate monitoring programmes are required for all approved proposals. Aspects to be covered in Monitoring include verification of impact predictions, evaluation of mitigatory measures, adherence to approved plans, and general compliance with the Environmental Certification. The responsibility for ensuring that appropriate monitoring takes place lies with the competent authority, while the Organ of State shall be responsible for meeting the costs.

Periodic assessments of the positive and negative impacts of the proposals should be undertaken. These will serve to provide feedback on the adequacy of planning during

the development stage of the proposal, the accuracy of investigations in the environmental assessment stage, the wisdom of the decisions taken during the review stage, and the effectiveness of the Conditions of Approval and monitoring programme during the Implementation stage. An audit is thus an independent reassessment of the policy / plan / programme after a given period of time as a requirement for the renewal of the policy / plan / programme.

STAGE 15. RENEWAL OF ENVIRONMENTAL CLEARANCE CERTIFICATE

The renewal of the Environmental Clearance Certificate is part of the conditions of approval of any application. The renewal period will vary but will not be more than three (3) years depending on the specific type of policy / plan/ programme proposal. The date of expiry and renewal will be indicated on the Environmental Clearance Certificate. The renewal process must always be done three (3) months before the date of expiry of the Environmental Clearance Certificate. Failure to renew an Environmental Clearance Certificate on time and unless the policy / plan/ programme proposals has been abandoned, will result in a fine / penalty as prescribed in the Act and the Regulations.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PART 2: GUIDELINES ON STRATEGIC ENVIRONMENTAL ASSESSMENT AND MANAGEMENT OF POLICIES / PLANS / PROGRAMMES

1. INTRODUCTION

1.1 OVERVIEW

This section gives stage-by-stage guideline outline for undertaking a Strategic Environmental Assessment (SEA). This guideline is based on professional tasks, activities, decisions to be taken and the expected outputs to be provided with respect to any policy/ plan / programme assessment. A model methodological approach to this guideline comprises five (5) phases with each phase providing more detailed information on specific aspects of the SEA process.

These phases are intended to provide a framework for evaluating the influences and interactions of various and all relevant primary and secondary data sets and come up with recommendations to the Organ of State on the development, implementation, monitoring and research opportunities with respect to specific policies, plans and programmes. The phase approach also allows the easy incorporation of specific guidance when they become available for certain types of policies, plans and programmes during the SEA process.

The model SEA methodology framework that is provided in this guideline involves an iterative process of collecting and evaluating primary and secondary information, defining alternatives, identifying environmental effects, developing mitigation measures and revising proposals in the light of predicted environmental effects.

Figure 1 shows a model example of a Decision Support Tools (DSTs) that could be derived from primary and secondary data sets and could form part of the final use friendly products to be produced by the Organ of State together with the draft and then final SEA report.

A model methodology, with all the main phases, objectives of each phase and expected outcomes are summarised in Figure 2. More detailed outlines of the activities associated with each phase are outline in Tables 1-5.

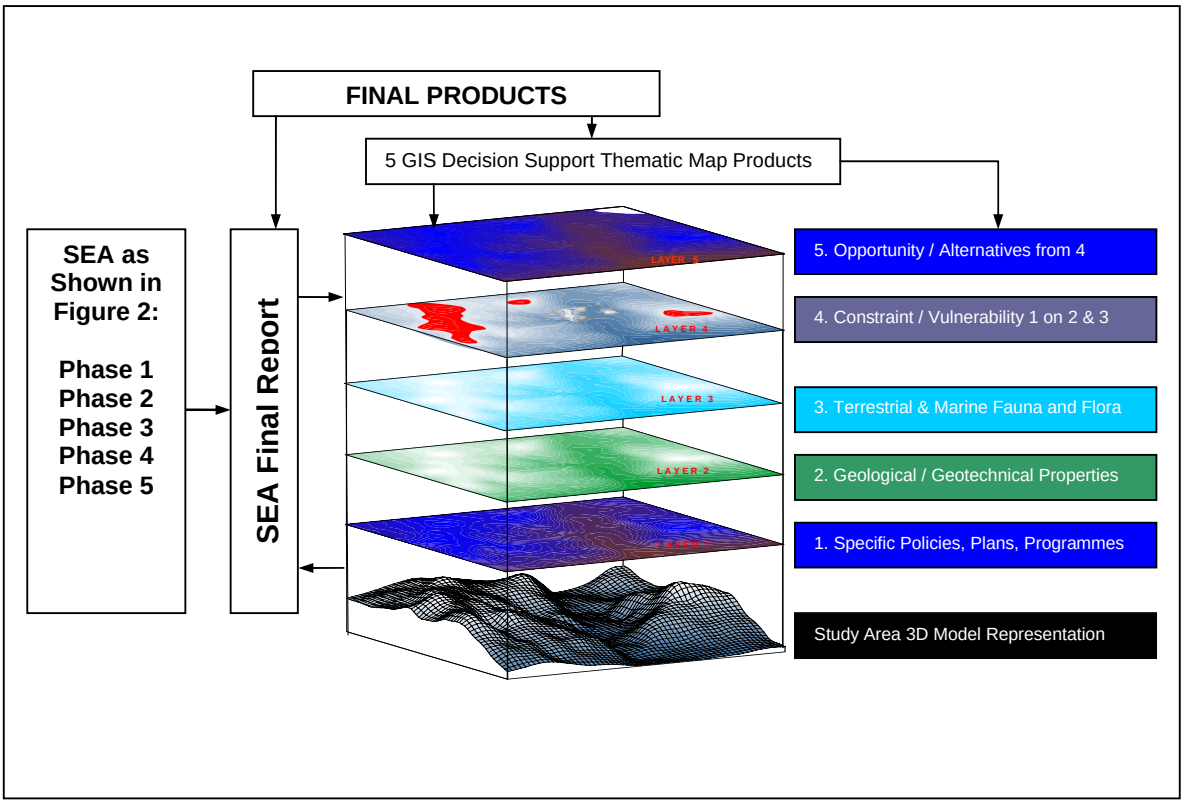

Figure 1: Shows a summarised Knowledge-Based Model Representation of model methodological Phase Approach and the SEA Final Report Product, together with five (5) GIS Decision Support Thematic Map Layers

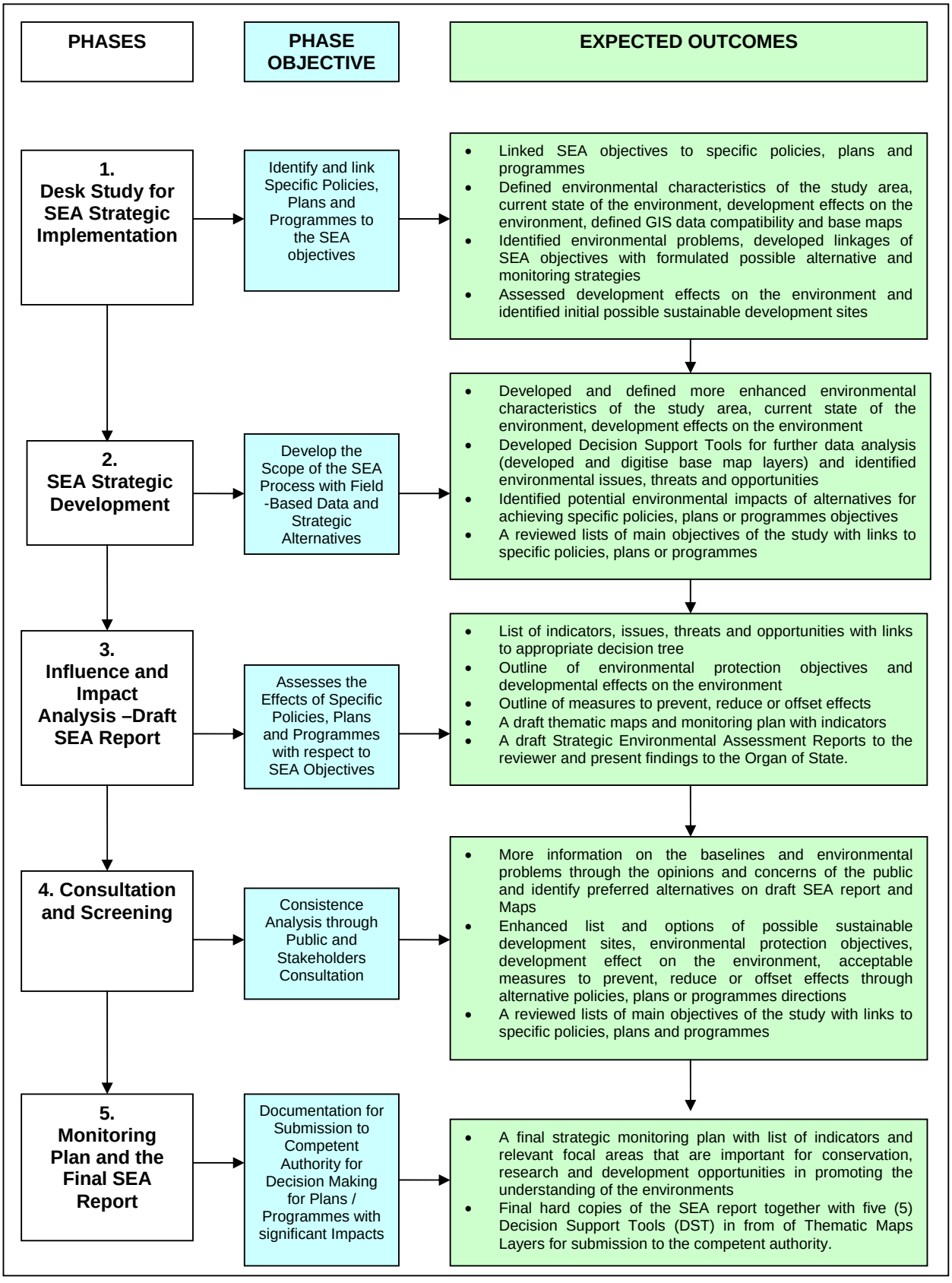

Figure 2: A summarised knowledge-based model phase approach to undertaking a Strategic Environmental Assessment (SEA).

2. PHASE 1: DESK STUDY FOR SEA STRATEGIC IMPLEMENTATION

2.1 IDENTIFYING RELEVANT DATA, POLICIES, PLANS AND PROGRAMMES

Local plans or programmes may be influenced in various ways by other plans or programmes, or by external environmental protection objectives such as those laid down in national policies or legislations or pending bills. Environmental assessments conducted in the preparation of other relevant plans and programmes are also likely to be useful sources of information. These relationships and linkages must be identified to enable the project team to take advantage of potential synergies and to deal with any inconsistencies and constraints.

Some issues may already have been dealt with in other plans and programmes, and need not be addressed further in the plan or programme that is being developed. Where significant tensions or inconsistencies are identified they must be evaluated using the principles of precedence between levels or types of plan or programme, the relative timing of the plans or programmes concerned, the degree to which the plans, programmes and objectives accord with current policy or legal requirement and the extent of any environmental assessments which have already been conducted.

A summary of activities, sub-objectives and expected outcomes from this phase are outlined in Table 2.1. The results of this exercise could be documented as shown in Table 2.2, showing the requirements of specific policies, plans or programmes objectives concerned, the constraints or challenges / opportunities they pose, and how they might take account of them.

Table 2.1: Summary Table of the activities, sub-objectives and expected outcomes of Phase 1

PHASE 1: Desk Study for SEA Strategic Implementation		OBJECTIVE: Identify and Link Specific Policies, Plans and Programmes to the SEA Objectives	
ACTIVITIES [1-4]		**SUB-OBJECTIVES**	**EXPECTED OUTPUTS**
1	Identify all relevant data, plans, programmes and environmental protection objectives through review of a series of relevant documents and meetings with the Organ of State project team	To document how specific policies, plans or programmes are affected by outside factors and suggest solutions on how any constraints can be addressed	Linked SEA objectives to specific policies, plans and programmes
2	Conduct initial data collection process and analysis of the human development and interactions with the environment and the related ecosystems	To provide an evidence base for a more focused SEA process in the next phases for environmental problems, effects prediction, monitoring and related opportunities	Defined environmental characteristics of the focal area, current state of the environment, development effects on the environment and defined GIS data compatibility and base maps definitions
3	Test specific policies, plans or programmes objectives against the SEA objectives	To ensure that the overall objectives of specific policies, plans or programmes are in accordance with the SEA objectives and provide a suitable framework for developing options	Assessed development effects on the environment and identified initial possible sustainable development sites, alternatives, monitoring and related opportunities
4	Predict the effects of specific policies, plans or programmes by undertaking an initial influence assessment (scenario development and comparative initial risk assessment)	To help focus the SEA and streamline the subsequent stages including baseline information analysis, setting of the SEA objectives, prediction of effects and monitoring	Identified environmental problems, developed linkages of SEA objectives with formulated possible alternative, monitoring strategies and where relevant possible future directions

Table 2.2: Proposed approach to documenting SEA links with other relevant plans and programmes or environmental protection objectives

Specific Policies, Plans or Programmes	Objectives or requirements of Specific Policies, Plans or Programmes	How objectives of specific policies, plans or programmes requirements link to the SEA objectives

2.2 CONDUCT INITIAL DATA COLLECTION PROCESS

At this stage the project team must compile the available background information relevant to the SEA process (add on the baseline report) and identify gaps on data sets. The baseline report that was initially developed for application becomes the first building block. The aim is to get the full benefit of integrating and linking specific policies, plans and programmes objectives with the SEA objectives at the outset. Issues must be identified and alternative options must be developed.

All the existing key information and whatever additional data sets that may be needed must be compiled. The type of GIS Thematic data layers that may be developed must be assessed at this stage in order to develop products that are compatibility with the GIS system of the Organ of State right from the project implementation stage. The scale of any collected field-based mapping must be around 1: 10 000 scale or bigger depending on the size, type of project and the detail of environmental aspects to be covered. Usually, some useful information such as environmental impact assessments on site-specific of previous developmental plans or programmes is every often already available particularly with the competent authority.

At this stage and if the project is being undertaken by an environmental assessment practitioner, the Organ of State and other stakeholders must be consulted in order to seek information and initial opinions.

At this stage, the initial data collection process must have covered the following group of data sets:

- Relevant existing and planned (pending) policies, plans and programmes
- Climatic data sets including precipitation; wind and temperature etc
- Environmental data sets covering terrestrial or marine species inventory per major taxonomic group; occurrence, abundance and distribution mapping of species and habitats, annual migrations/ fluctuations of species, conservation status of terrestrial/marine/coastal biota and habitats, endemism and the coverage within the National/Regional/ Local Protected Area Network, importance of the area in terms of habitat, research, breeding ground, spawning area, etc and importance / sensitivity of the environment within the context of the study.
- People and the environment covering urbanisation; population trends; residential housing needs; industrial activities such as tourism, recreational, fisheries etc
- The physical environment covering geomorphologic features; superficial materials characteristics; hard rock terrain and hydrology etc

The final syntheses and assessment of initial data sets could be presented as shown in Table 2.3. If a Decision Support System is required, the various data sets will be organised and involve a process that will result in the following five (5) thematic products:

a) Specific policies, plans and programmes covering various developmental initiatives for rural / urban / land uses and activities with respect to people and the environment for the project area will constitute one (1) thematic layer that will be layer No. 1
b) The geo-environment layer No. 2 will comprise one (1) layer and this may cover morphodynamic (landscape relationships), superficial and hard rock properties and characteristics with respect to specific developmental plans or programmes
c) The climate data sets which may be used to understand and to relate to the state of the natural environment with the aim of developing one (1) thematic layer No. 3 showing the terrestrial / marine habitat with fauna and flora indicators where applicable;
d) The influences and interaction of specific policies, plans, or programme with the geo-environment, terrestrial / marine environments will results in some negative

effects that will be captured and summarised in form of one (1) Constraints / Vulnerability Layer No. 4.

e) One (1) Opportunity Layer No. 5 derived from identified opportunities with respect to the constraints, vulnerability, influences and interactions associated with layers No. 1 with respect to Layers 2, 3, and 4, will be the ultimate Decision Support Tool (DST) that will form part of the overall SEA report.

Table 2.3: Guidance procedure for organising and assessing baseline information.

SEA Topic	Indicator	Quantified Information	Comparators and Targets	Trend	Issue /Constraints

2.3 TESTING SEA OBJECTIVES

The SEA objectives are clear must be clear and such information must be contained in the Terms of Reference prepared by the Organ of State. The phase objective are not independent of the SEA objectives, they are only developed to ensure that the right level of consideration is achieved in addressing the desired outcomes with respect to the SEA objectives.

An objective is a statement of what is intended, specifying a desired direction of change. For this guidance, a distinction needs to be made between three types of objectives:

- Plan objectives are the objectives adopted for the plan in question, usually through a process of expert consideration, public consultation and political approval. Government guidance increasingly requires plan objectives to be based on sustainability considerations, and the development of SEA objectives may help to promote ideas for making them more environmentally friendly and sustainable.
- External objectives are other objectives to which planners must have regard independently from the SEA process. They include environmental protection objectives and must be covered in the SEA Report, and must also include other objectives such as economic or social, for instance the Organ of State requirement to build a given number of houses.
- SEA objectives provide a methodological yardstick against which the environmental effects of specific plans must be tested. These objectives are distinct from plan and external objectives, though they will often overlap with them. The achievement of such objectives is normally measured by using indicators. Additional SEA objectives will be derived from environmental protection objectives identified in other plans and programmes or from a review of baseline information and environmental problems.

Its important that the Organ of State / environmental assessment practitioner recognises these differences and must evaluate the influences and interactions of the various objectives, data sets, indicators, pathways and targets with aim to identifying opportunities for specific policies, plans and programmes implementations and maximising environmental benefits for sustainable development.

2.4 PREDICTING THE EFFECTS

This stage will focus on identifying any likely changes to the environmental baseline and will be predicted with respect to specific policies, plans or programmes, including alternatives. These will be compared with each other, therefore, with the no plan or programme or business as usual scenarios, and against the SEA objectives. Note that no plan or programme and business as usual scenarios will still involve changes to the baseline. The description of these changes will cover the magnitude, their geographical scale, the time period over which they will occur, whether they are permanent or temporary, positive or negative, probable or improbable, frequent or rare, and whether or not there are secondary, cumulative and/or synergistic effects. Predictions must generally be expressed in qualitative terms. However, where sufficient hard data is available the project team must detail quantitative predictions and this can be particularly useful where a plan's or programme's effects are uncertain, close to a threshold, or cumulative. But quantification is not always practicable, and broad-based and qualitative predictions will be equally valid and appropriate. As in current practice, will be expressed in easily understood terms such as getting better or worse or a scale from ++ (very positive) to – – (very negative). The predictions must be linked to specific objectives, e.g. "will the plan or programme promote change in a desired direction?"

All qualitative predictions must be supported by evidence, such as references to any research, data sets, spatial location, discussions or consultation. The SEA report must document any uncertainties or limitations in the information underlying both qualitative and quantitative predictions. Assumptions, for instance about underlying trends or details of projects to be developed under the plan or programme, must be clearly stated. Where a specific plan or programme includes proposals for individual projects, they must be assessed in sufficient level to enable significant environmental effects to be broadly predicted.

Where Environmental Impact Assessment is needed later for specific projects, it is likely to be informed and validated by the findings of the SEA process, but it will not be appropriate or even possible to provide the level of detail needed for EIA in the context of the a specific policies, plans or programmes testing and assessment.

3. PHASE 2: SEA STRATEGIC DEVELOPMENT

This phase must focus at developing a detailed scope of the SEA process with field-based data and developing strategic alternatives. At this phase, the direction of SEA process would be lined towards considering reasonable alternatives by taking into account the objectives and the geographical scope of specific policies, plans or programmes. An outline of the reasons for selecting the alternatives must be provided. If the SEA process is being undertaken by an environmental assessment practitioner, the Organ of State must be consulted when deciding on the scope and level of detail of the information which must be included in the draft and intimately final SEA report. A summary of activities, sub-objectives and expected outcomes from this phase are outlined in Table 3.1.

Table 3.1: Summary table of the activities, sub-objectives and expected outcomes of the Phase 2

PHASE 2: SEA Strategic Development		**OBJECTIVE: Develop the Scope of SEA with Field -Based Data and Strategic Alternatives**	
ACTIVITIES [1-4]		**SUB-OBJECTIVES**	**EXPECTED OUTPUTS**
1	Collect detailed baseline information such as detailed field mapping of the physical environmental and collect data on the environment, fauna and flora as well as industrial activities and other land uses of the area	To provide an evidence base for environmental problems, effects extent, prediction, alternatives, monitoring and possible research direction	Developed and defined field-based enhanced environmental characteristics of the study area, current state of the environment, development effects on the environment and opportunities
2	Data synthesis through matrix, vulnerability analysis, digitising field – based maps into GIS Thematic Layers where relevant	To provide a visual means by which the environmental performance of specific policies, plans and programmes can be assessed	SEA draft report structure and base maps as Decision Support Tools (DSTs) for further data analysis (developed initial map layers) and identify environmental issues, threats and opportunities
3	Appraise strategic alternatives with respect to identified trends of indicators and possible research opportunities	To assist in the development and refinement of the strategic alternative	Identified potential environmental impacts of alternatives for achieving the plan or programme objectives
4	Consult the Organ of State on the scope of SEA process and structure of the initial report	To ensure that the SEA process covers all relevant and key environmental issues	A reviewed lists of main objectives of the study with links to specific policies, plans and programmes objectives

3.1 COLLECTING DETAILED BASELINE INFORMATION

Baseline information provides the basis for predicting and monitoring environmental effects and helps to identify environmental problems and alternative ways of dealing with them. Sufficient information for evaluating the current and likely future state of the environment must be collected to allow the full assessment of specific policies, plans or programmes. For each data set with indicator selected, enough information

must be collected to answer various questions that will arise with respect to specific policies, plans and programmes. Such question will include the following:

- How good or bad is the current situation?
- Do trends show that it is getting better or worse?
- How far is the current situation from any established thresholds or targets if any?
- Are particularly sensitive or important elements of the receiving environment such as affected people, resources, species or habitats?
- Are the problems reversible or irreversible, permanent or temporary?
- How difficult would it be to offset or remedy any damage?
- Have there been significant cumulative or synergistic effects over time?
- Are there expected to be such effects in the future?

3.2 POLICIES, PLANS, PROGRAMMES OBJECTIVES AND SEA OBJECTIVES

At this stage, environmental assessment practitioner must decide the direction and scope of the SEA process, what alternatives and types of effect to assess, and what level of detail to cover and present. The advice of the Organ of State will be sought on the scope of the SEA study. The objectives of the specific policies, plans or programmes must be tested against the SEA objectives in order to identify potential synergies, inconsistencies and opportunities. This information will help the environmental assessment practitioner in developing alternatives with respect to specific policies, plans or programmes, and may in some cases help to refine and even identify new objectives for addition to the existing SEA study objectives as may be outlined in the Terms of Reference. Where a specific policy, plan or programme has several objectives it may also be helpful to test them against each other, as consistencies may give rise to adverse and cumulative environmental effects. The compatibility of specific policies, plans or programmes objectives with each other and with SEA objectives must be tested using a framework such as that shown in table 2.2.

3.3 APPRAISING STRATEGIC ALTERNATIVES

Alternative options must be developed and each alternative must be tested against the SEA objectives. Positive as well as negative effects must be considered, and uncertainties about the nature and significance of effects must also be noted together with the associated opportunities. This will involve an iterative process, with the alternatives being revised to enhance positive effects and reduce negative ones. At this stage it may be possible to drop some alternatives from further consideration. Reasons for eliminating alternatives must be documented. Justifications for those chosen must be robust, as they can affect decisions on major developments.

It is not the purpose of the SEA Process to decide which alternative must be chosen with respect to specific policy, plan or programme. This is the role of the decision-makers and in particular the Organ of State must have to make choices on specific

policies, plans or programmes to be adopted. The SEA will simply provide information on the relative environmental performance of various alternatives and opportunities. Throughout this part of the assessment, it must be highly beneficial for the environmental assessment practitioner to revisit earlier tasks such as the collection of baseline information, as new information and issues emerge in order to fill all the gaps.

3.4 CONSULTING ON THE SCOPE OF SEA

The environmental assessment practitioner must then seek the views of the Organ of State on the scope and level of detail of the draft SEA report. Consultation at this stage may help to ensure that the draft report will be robust enough to support specific policies, plans or programmes during the later stages of full public consultation. In addition, environmental assessment practitioner must also consult with other stakeholder organisations and individuals concerned at this stage in order to obtain information and opinions. The environmental assessment practitioner may develop or adopt existing principles and procedures for handling scoping inquiries. The environmental assessment practitioner may produce a draft or outline of the SEA Report as the basis for consultation.

Note that this is not the consultation with the public because that will only be undertaken when the draft SEA report has been finalised and agreed with the Council project team.

4. PHASE 3: INFLUENCE AND IMPACT ANALYSIS

4.1 PREDICTING THE EFFECTS AND ALTERNATIVES

In the report that will be prepared by the environmental assessment practitioner, the likely significant effects on the environment for implementing a specific policy, plan or programme and reasonable alternatives must be identified, described and evaluated. A summary of activities, sub-objectives and expected outcomes from this phase are outlined in Table 4.1. The report must also include information that may be required taking into account the current knowledge and methods of assessment, the contents and levels of detail requirements of specific policies, plans or programmes and the stages in the decision-making process. As part of the influence and impact analysis process, the information that must be provided in the SEA report should includes the following:

- Developmental opportunities and the likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage, including architectural and archaeological heritage, landscape and the interrelationship between the above factors. These effects must include secondary, cumulative, synergistic, short, medium and long-term, permanent and temporary, positive and negative effects derived from all the other phases of the study;
- An outline of the reasons for selecting specific alternatives or opportunities with respect to specific policies, plans or programmes;
- The measures envisaged to prevent or reduce and as fully as possible offset any significant adverse effects on the environment as a result of or not implementing a specific policy, plan or programme.

Table 4.1: Summary of the activities, sub-objectives and expected outcomes of the Phase 3

PHASE 3: Influence and Impact Analysis		**OBJECTIVE: Assesses the Effects of Specific Policies, Plans and Programmes with respect to SEA Objectives**	
	ACTIVITIES [1-4]	**SUB-OBJECTIVE**	**EXPECTED OUTPUT**
1	Scenarios development, formulating options and comparative risk assessment	To predict the significant environmental effects and opportunities of specific policies, plan or programme and its alternatives	List of indicators, issues, threats and opportunities linked to appropriate decision tree
2	Evaluate and predict the effects of specific policies, plans or programmes implementation including alternatives and opportunities	To evaluate the predicted effects of specific policies, plans or programmes objectives and assist in the refinement of alternatives / mitigations/ measures / opportunities	Outline of environmental protection objectives and developmental effects or opportunities on the environment and measures to prevent, reduce or offset effects
	Propose measures to monitor the environmental	To detail the means by which the environmental performance of specific	A draft monitoring plan with

3	effects with respect to specific polices, plans or programmes implementation	policies, plans or programmes will be assessed and monitored	indicators and direction for promotion of sustainable development
4	Prepare the draft Strategic Environmental Assessment Report for review by the Organ of State	To provide a detailed account of the SEA process, including the findings of the environmental assessment and how it influenced specific policies, plans or programmes, in a format suitable for public consultation and decision-makers	A draft Strategic Environmental Assessment Reports (SEA) and maps to the reviewer and present findings to the Organ of State

4.2 EVALUATING EFFECTS AND ALTERNATIVES

The evaluation processes must involve building evidence to base a judgement on whether or not a predicted effects associated with specific polices, plans or programmes will be environmentally significant. The criteria of significance must be relevant when considering a specific effect, e.g. its scale and permanence and the nature and sensitivity of the receiving environment. This assessment must be linked and derived from the baseline information (primary and secondary) and indicators defined in the previous phases. The environmental assessment practitioner during the evaluation process must consider and address alternative aspects such as the following:

- Is it clear exactly what is proposed, and how the alternatives differ from each other or relate to specific policies, plans or programmes as a whole?
- Is each alternative likely to have a significant adverse effect in relation to each of the environmental objectives or targets?
- If so, can the effect be avoided or its severity reduced?
- If the effect cannot be avoided, e.g. by conditions or changes to the way it is implemented, can the alternative be changed or eliminated?
- If its effect is uncertain, or depends on how specific policies, plans or programmes are to be implemented, how can this uncertainty be reduced?

4.3 PREPARING THE DRAFT SEA REPORT

The Draft SEA report is a key output of SEA process and must reflect all the findings on which formal public consultation process must be carried out. The structure of the information to be provided in the draft SEA report is shown in Section 6.2, with more sections to be added or removed at the various levels of SEA study in consultation with the Organ of State. In summarising the various data sets that must be collected, these must be synthesised as described in Section 4.2 - Phase 1: Desk Study for SEA Strategic Implementation and with visual Decision Support Systems (DSTs) where applicable data synthesis and representation model as shown in Figure 2.2.

5 PHASE 4: CONSULTATION AND SCREENING

5.1 STAKEHOLDERS CONSULTATION AND SCREENING

After consultation and screening process of the Draft SEA report with maps by the Organ of State, the draft products must be made available to the public and all other stakeholders. The consultation process must utilise already established methodology practices and platforms as used in many plans and programmes such as workshops, meetings, interviews and questionnaires with checklist. The environmental assessment practitioner must considers this stage to be very important as it provides an opportunity for public and all relevant stakeholders to have ownership and feel part of the process, products, policies, plans, programmes decisions and ultimate implementation stage. Therefore, the timing of the consultation process is however also important and must ensure that the public and all other relevant stakeholders are given an early and effective opportunity with enough clear information and data and within the appropriate time frames in the SEA process to express their opinions. A summary of activities, sub-objectives and expected outcomes from this phase are outlined in Table 5.1.

Table 5.1: Summary table of the activities, sub-objectives and expected outcomes of Phase 4

PHASE 4: Consultation and Screening		OBJECTIVE: Consistence Analysis through Public and Stakeholders Consultation	
ACTIVITIES [1-3]		**SUB-OBJECTIVE**	**EXPECTED OUTCOME**
1	Consulting on the draft SEA report findings and recommendations	To provide the public and other stakeholders with an opportunity to express their opinions on the findings of the SEA process and to use it as a reference point in commenting on specific policies, plans or programmes	More information on the baselines, opportunities and environmental problems through the opinions and concerns of the public and identify preferred alternatives to specific policies, plan or programme implementation process
2	Assess and incorporation of significant changes	To ensure that any significant changes to the draft SEA report are assessed for their environmental implications	Enhanced list and options of possible sustainable development opportunities, environmental protection objectives, development effect on the environment, acceptable measures to prevent, reduce or offset effects through alternative policy plan and programme direction
3	Decision making and provision of information	To provide information on how the SEA report and consulted opinions were taken into account	A reviewed lists of main objectives of the study with links to specific policies, plan or programmes

5.2 ASSESSMENT OF SIGNIFICANT CHANGES

The findings and recommendation in the draft SEA report with respect to specific policies, plans or programmes must be subjected to several successive consultation exercises. The environmental assessment practitioner must take note of any implications to the draft SEA report. The environmental assessment practitioner must keep on reviewing the Draft SEA to ensure that it remains consistent with the various aspects of the report on which opinions are being sought or presented. If significant changes are made from the original draft SEA report, the environmental assessment practitioner in consultation with the Organ of State must consider whether a revised report is needed or on how to incorporate all the relevant raised opinions.

5.3 DECISION MAKING AND PROVISION OF INFORMATION

The information in the draft SEA report with respect to the responses to consultation must be taken into account during the review of specific policies, plans or programmes implications and associated recommendations. As part of the final SEA report content, the environmental assessment practitioner must produce a summary of how they have taken these findings into account, and how environmental considerations, more generally, have been integrated into specific policies, plans or programmes. This summary must provide enough information to make clear how the content has changed as a result of information in the responses to consultation, or why no changes were made. It must also show why alternatives were rejected or incorporated. The Draft SEA report must already have documented proposed monitoring measures, and at this stage, they must then be confirmed or modified in the light of the consultation responses. Recommendations on how the monitoring programme and promotion of sustainable development must be carried out during implementation must also be provided in final SEA report.

6 PHASE 5: MONITORING AND THE FINAL SEA REPORT

6.1 DEVELOPING A MONITORING AND SUSTAINABLE DEVELOPMENT OPPORTUNITIES

As part of the final SEA report, the environmental assessment practitioner, based on all the findings from phase 1-4 must develop a monitoring plan with possible indicators and areas for sustainable development opportunities by incorporating any existing initiatives. Monitoring allows the actual significant environmental effects of implementing specific policies, plans or programmes to be tested against those predicted. It thus helps to ensure that any problems which arise during implementation, whether or not they were foreseen, can be identified and future predictions made more accurately. The environmental assessment practitioner must also compile a list of focal areas within the framework of the SEA process that may be relevant for research, sustainable development and the promotion of the understanding of the environments. The list can also be used to compile baseline information for future policies, plans or programmes direction, and to prepare information which may be needed for Environmental Impact Assessments (EIAs) on project specifics. A summary of activities, sub-objectives and expected outcomes from this phase are outlined in Table 6.1.

Table 6.1: Summary table of the activities, sub-objectives and expected outcomes of Phase 5

PHASE 5: Monitoring and the Final SEA Report		**Objective: Documentation for Decision Making**	
ACTIVITIES [1-2]		**SUB-OBJECTIVES**	**EXPECTED OUTCOMES**
1	Develop aims and methods for monitoring and sustainable development opportunities in responding to adverse cumulative effects and incorporating all the relevant suggestions and comments	To measure the environmental performance of specific policies, plans or programmes in order to determine whether its effects are as anticipated, and develop revisions or recommend areas for research and sustainable development	A final strategic monitoring plan with list of indicators where applicable as well as relevant and important focal areas of research and sustainable development for the understanding of the environments
2	Prepare and submit the final SEA report and some form of Decision Support Tools that may be in form of Thematic Maps	To be used as Decision Support Tools by the Organ of State with respect to specific policies, plans and programme development, implementation and monitoring	Submit hard copies of the final SEA report together with the Decision Support Tools such as the Thematic Maps as well as the digital versions of the report and the map products. The deliverables must then be submitted to competent authority for review and final decisions.

6.2 PREPARING AND SUBMISSION OF THE FINAL SEA REPORT AND THE MAPS

The final SEA report documents must clearly show how the project mission as outlined in the Terms of Reference in relation to the content of the report have been met. This must be achieved through the use a quality assurance guide as outlined in Annex 8.3. The prepared final SEA Report once ready must be submitted to the competent authority for review and final decisions. A summary of the type of content lists which may be subject to some changes in consultation with the Organ of State, public other relevant stakeholder organisations and individuals over the whole process of the SEA process is outline in Annex 8.2.

7. GLOSSARY

Affected Environment

Those parts of the socio-economic and biophysical environment impacted on by the development, policy, plan or programme.

Alternatives

A possible course of action, in place of another, that would meet the same purpose and need (of proposal). Alternatives can refer to any of the following but are note limited hereto: alternative sites for development, alternative site layouts, alternative designs, alternative processes and materials. In Integrated Environmental Management the so-called "no action" alternative may also require investigation in certain circumstances.

Assessment

The process of collecting, organising, analysing, interpreting and communicating data those are relevant to some decision.

Background

The surrounding environment that is uncontaminated by a local source of pollution.

Baseline

Reference emission level. The term is used with different meanings in different contexts. It can denote:

- the historical emission level of an entity in a reference year,
- the projected future emission level of an entity if no extra mitigation measures are taken (business-as-usual scenario).

Benchmarking

Under benchmarking, some average emissions level, or a percentage thereof, is used as a uniform target for all emitters in the group for which the average applies.

Cleaner Production

The continuous application of an integrated preventive environmental strategy to processes, products, and services to increase overall efficiency, and reduce risks to humans and the environment. Cleaner Production can be applied to the processes used in any industry, to products themselves and to various services provided in society.

Consistence

Possible time span of influence associated with a specific negative or positive impact linked to the proposed project development.

Continual Improvement

Process of enhancing the environmental management system to achieve improvements in overall environmental performance in line with an organisation's environmental policy.

Consultation Bodies

Authorities which because of their environmental responsibilities are likely to be concerned by the effects of implementing policies, plans and programmes and must be consulted at specified stages of the SEA.

Climatic Components

Represent data sets that characterise the influences of climate on the proposed project.

Coverage

An area of influence that maybe covered because of the likely positive or negative impacts associated with the proposed project.

Data

Knowledge that describes a characteristic of an object or aspect.

Data Set

Group of data that describes the various characteristics of the same object or aspect.

Environment

Surroundings in which an organisation operates, including air, water, land, natural resources, flora, fauna, humans, and their interrelation. NOTE – Surroundings in this context extend from within an organization to the global system.

Environmental Assessment

Generically, a method or procedure for predicting the effects on the environment of a proposal, either for an individual project or a higher-level "strategy" (a policy, plan or programme), with the aim of taking account of these effects in decision-making.

Environmental Aspect

Element of an organisation's activities, products or services that can interact with the environment NOTE - A significant environmental aspect is an environmental aspect that has or can have a significant environmental impact

Environmental Audit

A systematic and documented verification process of objectively obtaining and evaluating evidence to determine whether an organisation's environmental management system (EMS) conforms to the environmental management system audit criteria set by the organisation, and for communication of the results of this process to management.

Environmental Components

Represent data sets that describe the relations and interactions between human activities and the local ecosystems.

Environmental Impact

Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's activities, products or services.

Environmental Management System (EMS)

The part of the overall management system that includes organisational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy.

Environmental Objective

Overall environmental goal, arising from the environmental policy that an organisation sets itself to achieve, and which is quantified where practicable.

Environmental Performance

Measurable results of the environmental management system, related to an organisation's control of its environmental aspects, based on it's environmental policy, objectives and targets.

Environmental Policy

Statement by an organisation of its intentions and principles in relation to its overall environmental performance which provides a framework for action and for the setting of its environmental objectives and targets.

Environmental Report

Document required by the Act as part of an environmental assessment, which identifies, describes and evaluates the likely significant effects on the environment of implementing a policy, plan or programme.

Ground Components

Represent data sets that describe the local ground conditions.

Groundwater

Water beneath the earth's surface, accumulating as a result of infiltration and seepage, and serving as the source of springs, wells, etc.

Influence

The degree of relevance associated with a particular data set with respect to proposed project and performance.

Indicator

A measure of variables over time, often used to measure achievement of objectives. The different types of indicators are:

- **Output Indicator:** An indicator that measures the direct output of the policy, plan or programme. These indicators measure progress in achieving policy, plan or programme objectives, targets and policies;
- **Significant Effects Indicator:**An indicator that measures the significant effects of the policy, plan or programme;
- **Contextual Indicator:** An indicator that measures changes in the context within which a policy, plan or programme is being prepared or implemented.

Interested Party

Individual or group concerned with or affected by the environmental performance of an organisation / project.

Integrated Pollution Prevention and Control

This principle aims to achieve integrated prevention and control of pollution arising from large-scale industrial activities. It lays down measures designed to prevent or, where that is not practicable, to reduce emissions in the air, water and land from these activities, including measures concerning waste, in order to achieve a high level of protection of the environment taken as a whole.

Inventory

Data base of a legal entity obtained by applying a protocol for emissions accounting and reporting.

Knowledge

Data or Data set that describes a characteristic of an object or aspect.

Life Cycle Analysis

A system-oriented approach estimating the environmental inventories (i.e. waste generation, emissions and discharges) and energy and resource usage associated with a product, process or operation throughout all stages of the life cycle.

Life Cycle Management

An integrated concept for managing the total life-cycle of goods and services towards more sustainable production and consumption, building on the existing procedural and analytical environmental assessment tools and integrating economic, social and environmental aspects.

Management of Pollution

Use or processes, practices, materials or products that avoid, reduce or control pollution, which may include recycling, treatment, process changes, control mechanisms, efficient use of recourses and material substitution

NOTE - The potential benefits of prevention of pollution include the reduction of adverse environmental impacts, improved efficiency and reduced costs.

Mitigations

Any action intended to either reduce or avert exposure or the likelihood of exposure to sources that are not part of a controlled practice, or which are out of control as a consequence of an accident.

Objective

A statement of what is intended, specifying the desired direction of change in trends.

Polluter Pays Principle

The principle to be used for allocating costs of pollution prevention and control measures to encourage rational use of scarce environmental resources and to avoid distortions in international trade and investment. This means that the polluter should bear the expenses of carrying out the above-mentioned measures decided by public authorities to ensure that the environment is in an acceptable state.

Pollution Prevention

The use of processes, practices, materials, products or energy that avoids or minimises the creation of pollutants and waste, and reduce overall risk to human health or the environment.

Precautionary Approach

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

Probability

Likelihood of having actual influence associated with a specific positive or negative impact taking place.

Receptor

A person living nearby to a source of pollution; the person who may receive any impacts resulting from an industrial activity.

Reference Level

This can be an action level, intervention level, investigation level or recording level. Such levels may be established for any of the quantities determined in the practice of environmental protection.

Remedial Action

Action taken to reduce negative impacts that might otherwise be received.

Organ of State

The organisation which prepares a policy plan or programme subject to the Regulations and is responsible for the SEA.

Scoping

The process of deciding the scope and level of detail of an SEA, including the environmental effects and alternatives which need to be considered, the assessment methods to be used, and the structure and contents of the Environmental Report.

Significant Impact

An impact that, by its magnitude, duration of intensity alters an important aspect of the environment.

Screening

The process of deciding whether a policy or plan or programme requires SEA.

Strategic Environmental Assessment (SEA)

Generic term used to describe environmental assessment as applied to policies, plans and programmes.

Sustainable Consumption

The use of services and related products which respond to basic needs and bring a better quality of life while minimising the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardise the needs of future generations.

Sustainable Development

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Upgrade

Includes the enlargement or expansion of an activity, but excludes regular or routine maintenance and the replacement of inefficient or old equipment, plants or machinery where such does not have a detrimental effect on the environment.

Value Judgement

A statement of opinion or belief which is not capable of being falsified by comparison with fact.

8. ANNEXES

ANNEX 8.1: SCREENING LIST OF POLICIES / PLANS / PROGRAMME SUBJECT TO FULL STRATEGIC ENVIRONMENTAL ASSESSMENT

1. Construction and related activities

(a) the erection or construction of facilities for the commercial generation of electricity with an output of more than **one** megawatt;
(b) the erection or construction of facilities for the commercial transmission and supply of electricity with the exception **of power supply lines of less than 2 kilometres in length**;
(c) the erection, construction or upgrading of nuclear reactors and installations for the production, enrichment, reprocessing and disposal of nuclear fuels and wastes;
(d) the erection, construction or upgrading of manufacturing, storage, handling or processing facilities for any hazardous substance, including transportation routes, structures and facilities connected therewith, and for the purpose of this clause “hazardous substance” means any substance declared as hazardous substance in terms of section 3(1) of the Hazardous Substances Ordinance, 1974 (Ordinance No. 14 of 1974), or in terms of any other law relating to the control of hazardous substances;
(e) the construction of public roads;
(f) the construction or upgrading of railways and harbours and associated structures;
(g) the construction or upgrading of airports, airfields and associated structures;
(h) the erection or construction of any structure below the high water mark of the sea;
(i) the erection or construction of any structure associated with aquaculture activities where such structures are not situated within an aquaculture development zone declared in terms of section 33 of the Aquaculture Act, 2002 (Act No. 18 of 2002);
(j) the erection or construction of cableways and associated structures;
(k) the erection or construction of communication networks including towers, telecommunication lines and cables as well as structures associated therewith including roads;
(l) the erection or construction of motor vehicle and motorcycle racing and test tracks;
(m) the construction of canals and channels including the diversion of the normal flow of water in a riverbed and water transfer schemes between water catchments and impoundments;
(n) the construction of dams, reservoirs, levees and weirs;
(o) the erection and construction of tourism facilities and associated structures including all wheel drive trails or activities related to tourism that may have a significant effects on the environment;

(p) the erection and construction of sewage treatment plants and associated infrastructure;
(q) the erection and construction of buildings and structures for manufacturing, processing, industrial or military activity;
(r) the erection and construction of veterinary, protected area or game proof and international boundary fences;
(s) the erection and construction of waste sites, including any facility for the final disposal or treatment of waste;
(t) the erection and construction of oil refineries; and
(u) the construction of oil, water, gas and petrochemical and other bulk supply pipelines.

2. Land use planning and development activities

(a) The rezoning of land from -
  (i) residential use to industrial or commercial use;
  (ii) light industrial use to heavy industrial use;
  (iii) agricultural use to industrial use;
  (iv) use for nature conservation or zoned open space to any other land-use;
(b) reclamation of land from below or above the high-water mark of the sea or associated inland waters;
(c) alteration of natural wetland systems;
(d) any activity entailing a scheduled process referred to in the Atmospheric Pollution Prevention Ordinance, 1976 (Ordinance No. 11 of 1976);
(e) the establishment of resettlement schemes; and
(f) the declaration of an area as an aquaculture development zone in terms of section 33 of the Aquaculture Act, 2002 (Act No. 18 of 2002).

3. Resource extraction, manipulation, conservation and related activities

(a) prospecting, quarrying, mining, mineral extraction or mineral beneficiation activity;
(b) the farming or importation or release or contained use of any genetically modified organism or plant or animal species that may have a significant impact on the environment;
(c) the genetic modification of any organism with the purpose of fundamentally changing the inherent characteristics of that organism;
(d) the abstraction of ground or surface water for industrial or commercial purposes; and
(e) clearance of forest areas, reforestation and afforestation.

4. Other activities

(a) pest control programmes;
(b) the import, processing and transit of genetically modified organisms; and
(c) the import, processing, transit or export of waste.

ANNEX 8.2: EXAMPLE OF A SEA REPORT CONTENT LIST

Summary

- Non-technical summary
- Statement on the difference the process has made
- How to comment on the report

Chapter 1: Introduction

- Provide a general overview of the developmental challenges of the focal area, SEA process, policies, plans and programmes

Chapter 2: SEA Objectives

- Links to other international, national, regional and local plans and programmes, and relevant Strategic environmental objectives including how these have been taken into account

Chapter 3: Methodology

- Approach adopted in the SEA
- Who was consulted, and when Background
- Purpose of the SEA and relevant Specific Plans or programmes objectives

Chapter 4: Baseline and Context

- Description of baseline characteristics and predicted future baseline
- Environmental issues and problems
- Difficulties in collecting information, limitations of the data, assumptions made etc.
- SEA objectives, targets and indicators

Chapter 5: Policies Plan and Programme

- Relevant specific policies, plan or programme
- Main strategic alternatives considered and how they were identified
- Comparison of the significant environmental effects of the alternatives

Chapter 6: Issues, Constraints and Alternatives

- How environmental issues were considered in choosing the preferred strategic alternatives
- Other alternatives considered and why they were rejected
- Any proposed mitigation measures
- Significant environmental effects of the policies and proposals
- How environmental problems were considered in developing the policies and proposals
- Proposed mitigation measures and uncertainties and risks

Chapter 7: Conclusion and Recommendation

- Links to other tiers of plans and programmes and the project level (environmental impact assessment, design guidance etc.)
- Monitoring plan with indicators, research and sustainable development focal areas
- Recommendations

Attachments

- Decision Support Tools (DSTs) such as Thematic maps
- Quality assurance check list
- Any other relevant data format (Graphs, pictures etc) that may not fit in the main text

ANNEX 8.3: A SUMMARY OF A QUALITY ASSURANCE CHECKLIST

1. Objectives and context

- Specific policies, plans or programme's purpose and objectives made clear
- Environmental issues and constraints, including those on international, regional (SADC), national, regional and local levels covered
- Objectives considered in developing alternatives and targets
- SEA objectives, used, clearly set out and linked to indicators and targets where relevant
- Links with other related plans, programmes and policies identified and explained

2. Consultation and Procedure

- Consultation process conducted in appropriate ways and at appropriate times on the content and scope of the SEA report.
- The assessment focuses on significant issues
- Technical, procedural and other difficulties encountered discussed; assumptions and uncertainties made explicit
- Reasons given for eliminating issues from further consideration

3. Alternatives

- Realistic alternatives considered for key issues, and the reasons for choosing them documented
- Alternatives include 'do minimum' and/or 'business as usual' scenarios wherever relevant
- The environmental effects (both adverse and beneficial) of each alternative identified and compared
- Inconsistencies between the alternatives and other relevant specific plans, programmes or policies identified and explained
- Reasons given for selection or elimination of alternatives

4. Baseline information

- Relevant aspects of the current state of the environment and their likely evolution without the implementation of specific policies, plans or programmes described
- Environmental characteristics of areas likely to be significantly affected described
- Difficulties such as deficiencies in information or methods explained
- Prediction and evaluation of likely significant effects explained
- Effects identified such as biodiversity, population, human health, fauna, flora, soil, water, air, climate factors, material assets, cultural heritage and landscape as well as all relevant and other likely effects covered
- Both positive and negative effects are considered, and the duration of effects (short, medium or Long-term) addressed
- Likely secondary, cumulative and synergistic effects identified where practicable

- Inter-relationships between effects considered where practicable
- Relevant predictions and evaluation of effects used accepted standards, regulations, and thresholds
- Methods used to evaluate the effects described

5. Mitigation measures

- Measures envisaged to prevent, reduce and offset any significant adverse effects of implementing the plan or programme indicated
- Issues to be taken into account in project consents identified

6. The environmental report

- Clear and concise in its layout and presentation
- Uses simple, clear language and avoids or explains technical terms
- Used maps and other illustrations where appropriate
- Explains the methodology used
- Explains who was consulted and what methods of consultation used
- Identifies sources of information, including expert judgement and matters of opinion
- Contains a non-technical summary covering the overall approach to the SEA, the objectives of the plan, the main options considered, and any changes to the plan resulting from the SEA

7. Consultation

- The SEA is consulted on as an integral part of the study process
- All stakeholders and the public likely to be affected by, or having an interest in, the plan or programme consulted in ways and at times which gave them an early and effective opportunity within appropriate time frames to express their opinions on the Draft SEA report

8. Decision-making and information on the decision

- The SEA report and the opinions of those consulted taken into account in finalising and adopting specific policies, plans or programmes
- An explanation given of how they have been taken into account
- Reasons given for choosing specific plan or programme as adopted, in the light of other reasonable alternatives considered

9. Monitoring measures

- Measures proposed for monitoring clear, practicable and linked to the indicators and objectives used in the SEA.
- During implementation of specific plan or programme, monitoring is used where appropriate to make good deficiencies in baseline information
- Monitoring enables unforeseen adverse effects identified at an early stage
- Proposals made for action in response to significant adverse effects
- Recommendation clear

ANNEX 8.4: APPLICATION FORM FOR ENVIRONMENTAL CLEARANCE CERTIFICATE.

ANNEX 8.5: NOTIFICATION FORM TO CONDUCT A FULL SEA

ANNEX 8.6: APPLICATION FOR TRANSFER OF AN ENVIRONMENTAL CLEARANCE CERTIFICATE