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OFFICE OF THE ENVIRONMENTAL COMMISSIONER

REPORTING GUIDELINE FOR ENVIRONMENTAL ASSESSMENT

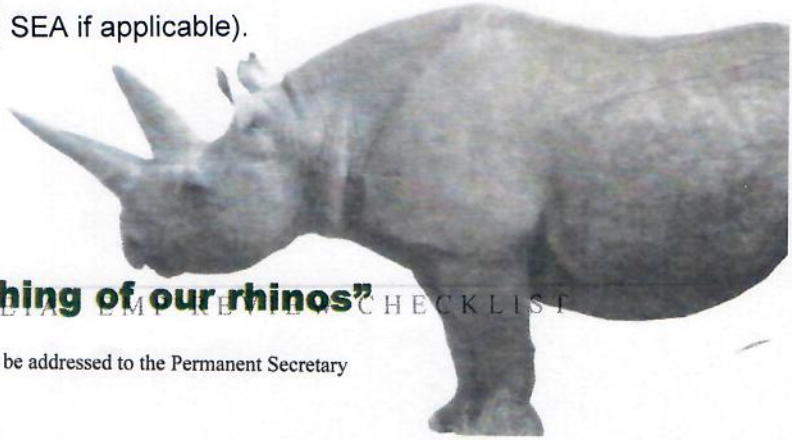
Efficient Environmental Assessment (EA) is in the interest of public and private parties. Concise reports (< 60 pages) contribute to efficiency. Conciseness is achieved by reporting exclusively information necessary for my decision. As EA reports are legal documents, every phrase requires precise formulation by the Environmental Assessment Practitioner (EAP) and careful review by my office. Consequently, voluminous reports consume scarce and expensive professional time leading to undesirable delays in EA procedures.

We have observed that EA reports frequently contain substantial amounts of redundant material. Recurrent examples are climate maps of the entire country for local projects, cut & paste, generic descriptions of flora and fauna in EIAs (instead of data), narratives on laws and the Constitution (instead of tabulated metadata), (S)EMPs formatted as user manuals and rehashed general information available on the web. Instead, the EAP should assume that competent authorities and private parties are conversant with the environmental and legal context of the submission and need only to be informed on specifics. To achieve parsimony, most of the pertinent information should be presented in maps and tables. Only a limited amount of text should be provided.

Please appreciate that the workflow in EA procedures starts with an Application for an Environmental Clearance Certificate (ECC), followed by a Scoping report and finally the full EA with EMP. Each of these documents should be linked backwards by referencing or appending the preceding documents.

Our experience shows that we need to re-iterate that the application for an Environmental Clearance Certificate (ECC) preferably should contain the –

- Complete contact details of the EA proponent; especially, the delivery address for the ECC is essential; changes during the EA process are to be communicated;
- Full contact details of the EAP; especially the delivery address for a formal letter on required revisions of EA reports is essential;
- ID, CV, professional qualification and place of permanent residence of the EAP, Work permit in case of foreign national operating in Namibia;
- Intended duration of the EA;
- Approximate date of consultation;
- Preliminary site map (EIA always; SEA if applicable).



"Stop the poaching of our rhinos"

Maps

First and foremost the EA report must contain a site map; a screen shot of a web-based image will not be accepted as this does not allow accurate site identification. A professional site map includes the following components:

- Coordinates at the map frame;
- Name of the coordinate system in the map image;
- North arrow, Legend with all objects and features shown in the map;
- Bar scale; no numerical scale (varies with size of printed map);
- Topographic landmarks (e.g. town, road, international border or other);
- Objects featuring in the EA report (e.g. reservoir, river).

Relevant territorial jurisdictions should be provided on the site map, or separately overlaid at a simplified location map. One or several of the following jurisdictions could apply:

- National boundary in river or ocean;
- Region;
- Town & Townlands;
- Village Council;
- Map units of IRLUP, Structure Plan, Zoning or Town Planning Scheme;
- Freehold farm, National Park, Namport;
- Traditional Authority, Conservancy, Concession
- License area, Veterinary Cordon Fence.

Alternative alignments, sites or zones must be represented cartographically against the background of the relevant environmental and socio-economic features. For technical specifications of printed maps see above.

Most of the pertinent EA information should be presented in Tables. The following tabulated meta-data may apply to EA reporting:

- Statutory context: Multilateral Agreement, Act/Regulation, Structure and Zoning Plan; Town Planning Scheme;
- Statutory environmental standards;
- Available secondary spatial baseline data;
- Required primary spatial data;
- Alternatives (3-4);
- Potential environmental impacts;
- Rating or ranking of impacts per alternative and per assessment criteria;
- Mitigation measures for significant impacts;
- Compensation measures for significant impacts without mitigation;
- Competent organs of state and/or bodies corporate per (S)EMP activity.

Tables in current EA reports are often hybrids between text boxes and tables, especially in (S)EMPs. Moreover, these hybrids combine blank cells with blocks of narrative text. This leads to a multi-page table defeating its purpose that is: a presentation of a large amount of information efficiently. Therefore, blank cells combined with blocks of narrative text are to be avoided. Blank cells are redundant in a well-designed table, narrative text is taboo in a table, and only key words are used in cell of the table. In short, a table should not extend beyond a single page. A standard table format should be adopted in the EA report (e.g. APA Style or MLA).

A record of a consultative hearing is to be included in the EA report. The record must include venue, invited and confirmed parties, the representations of the parties and the responses of the EAP.

The EA report should be written in concise technical English. Duplications within a report or between Scoping and full EA reports are to be avoided. Plagiarism will lead to rejection of a report. The terminology in EA reports should closely follow the legal terms of the Environmental Management Act 2007, its Regulations and other pertinent law. Colloquial terms without statutory meaning should be avoided (e.g. "*stakeholders*" (affected & interested parties and/or competent

authorities), "*offset*" (compensation), "*endemic*" (species) suggesting protected species status, or "*sensitive areas*").

EAs compare alternatives, both in Namibia (EIA Regulations 15 (1)) and internationally. In specific cases, e.g. ore bodies, alternative sites for the excavations may not be feasible. However, for the associated infrastructure (access roads; power and water supply; offices; plants; tailings) alternative sites for assessment may be identified. Beyond alternative sites, alternative dump or tailings designs and operations may be assessed.

Mitigation of negative environmental impact may not always be feasible; in such cases compensation is required (EMA, section 2(j)); compensation in kind or cash seems rare to date in Namibia, but is standard practice internationally.

The (S)EMP should not be conceived as a user manual for the proponent, but rather as a document to allow an informed decision on an application for an ECC, inspections and audits. See attached Annexure which serves as a guiding tool during review process by my office.

We hope to receive more concise EA reports and speed-up our processing accordingly,

Yours sincerely,

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P/Bag 13306
Windhoek, Namibia
2010 -04- 25
Office of the
Environmental Commissioner

Teofilus Nghitila
ENVIRONMENTAL COMMISSIONER

ANNEXURE (REVIEW CHECKLIST)

PROJECT TITLE:

1. DESCRIPTION OF THE PROJECT

The Objectives and Physical Characteristics of the Project

1.1 Are the need for and objectives of the project explained?

1.2 Is the programme for implementation of the Project described, detailing the estimated length of time and start and Finnish dates for construction, operation and decommissioning?

(this should include any phases of different activity within the main phases of the Project, for example extraction phases for mining operations)

1.3 Are all the main components of the project described

1.4 Is the location of each Project component identified, using maps, plans and diagrams as necessary?

1.5 Is the layout of the site (or sites) occupied by the project described? (including ground levels, buildings, other physical structures, underground works, coastal works, storage facilities, water features, planting, access corridors, boundaries)

1.6 For linear projects, are the route corridor, the vertical and horizontal alignment and any tunnelling and earthworks described?

1.7 Are the activities involved in construction of the project all described?

1.8 Are the activities involved in operation of the project all described?

1.9 Are the activities involved in decommissioning the project all described? (e.g. closure, dismantling, demolition, clearance, site restoration, site re-use etc)

1.10 Are any additional services required for the project all described? (e.g. transport access, water, sewerage, waste disposal, electricity, telecoms) or developments (e.g. roads, harbours, powerlines, pipelines)

1.11 Are any developments likely to occur as a consequence of the Project identified? (e.g. new
housing, roads, water or sewerage infrastructure, aggregate extraction)

1.12 Are any existing activities which will alter or cease as a consequence of the Project identified?

1.13 Are any other existing or planned developments with which the Project could have cumulative effects identified?

The Size of the Project

1.14 Is the area of land occupied by each of the permanent project components quantified and shown on a scaled map? (including any associated access arrangements, landscaping and ancillary facilities)

1.15 Is the area of land required temporarily for construction quantified and mapped

1.16 Is the reinstatement and after use of land occupied temporarily for operation of the Project described? (e.g. land used for mining or quarrying)

1.17 Is the size of any structures or other works developed as part of the Project identified? (e.g. the floor area and height of buildings, the size of excavations, the area or height of planting, the height of structures such as embankments, bridges of chimneys, the flow or depth of water)

1.18 Is the form and appearance of any structures or other works developed as part of the Project described? (e.g. the type, finish and colour of materials, the architectural design of buildings and structures, plant species, ground surfaces, etc)

1.19 For urban or similar development projects, are the numbers and other characteristics of new populations or business communities described?

1.20 For projects involving the displacement of people or businesses, are the numbers and other characteristics of those displaced described?

1.21 For new transport infrastructure or projects generating substantial traffic flows, is the type, volume, temporal pattern and geographical distribution of new traffic generated or diverted as a consequence of the Project described?

1.22 Are all the processes involved in operating the Project described? (e.g. manufacturing or engineering processes, primary raw material production, agricultural or forestry production methods, extraction processes)

1.23 Are the types and quantities of outputs produced by the Project described? (these could be primary or manufactured products, goods such as power or water or services such as homes, transport, retailing, recreation, education, municipal services (water, waste, etc))

1.24 Are the types and quantities of raw materials and energy needed for construction and operation discussed?

1.25 Are the environmental implications of the sourcing of raw materials discussed?

1.26 Is efficiency in use of energy and raw materials discussed?

1.27 Are any hazardous materials used, stored, handled or produced by the Project identified and quantified?

1.28 Are the transport of raw materials to the Project and the number of traffic movements involved discussed? (including road, rail and sea transport)

- during construction
- during operation
- during decommissioning

1.29 Is employment created or lost as a result of the Project discussed?

- during construction
- during operation
- during decommissioning

1.30 Are the access arrangements and the number of traffic movements involved in bringing workers and visitors to the Project estimated?

- during construction
- during operation
- during decommissioning

1.32 Is the housing and provision of services for any temporary or permanent employees for the Project discussed? (relevant for Projects requiring migration of a substantial new workforce into the area for either construction or the long term)

Residues and Emissions

1.33 Are the types and quantities of solid waste generated by the Project identified? (including construction or demolition wastes, surplus spoil, process wastes, by-products, surplus or reject products, hazardous wastes, household or commercial wastes, agricultural or forestry wastes, site clean-up wastes, mining wastes, decommissioning wastes)

- during construction
- during operation
- during decommissioning

1.34 Are the composition and toxicity or other hazards of all solid wastes produced by the Project discussed?

1.35 Are the methods for collecting, storing, treating, transporting and finally disposing of these solid wastes described?

1.36 Are the locations for final disposal of all solid wastes discussed?

1.37 Are the types and quantities of liquid effluents generated by the Project identified? (including site drainage and run-off, process wastes, cooling water, treated effluents, sewage)
- during construction
- during operation
- during decommissioning

1.38 Are the composition and toxicity or other hazards of all liquid effluents produced by the Project discussed?

1.39 Are the methods for collecting, storing, treating, transporting and finally disposing of these liquid effluents described?

DESCRIPTION OF THE PROJECT

1.40 Are the locations for final disposal of all liquid effluents discussed?

1.41 Are the types and quantities of gaseous and particulate emissions generated by the Project identified? (including process emissions, fugitive emissions, emissions from combustion of fossil fuels in stationary and mobile plant, emissions from traffic, dust from materials handling, odours)
- during construction
- during operation
- during decommissioning

1.42 Are the composition and toxicity or other hazards of all emissions to air produce by the Project discussed?

1.43 Are the methods for collecting, treating and finally discharging these emissions to air described?

1.44 Are the locations for discharge of all emissions to air identified and the characteristics of the discharges identified? (e.g. height of stack, velocity and temperature of release)

1.45 Is the potential for resource recovery from wastes and residues discussed? (including re-use, recycling or energy recovery from solid waste and liquid effluents)

1.46 Are any sources of noise, heat, light or electromagnetic radiation from the Project identified and quantified? (including equipment, processes, construction works, traffic, lighting, etc)

1.47 Are the methods for estimating the quantities and composition of all residues and emissions identified and any difficulties discussed?

1.48 Is the uncertainty attached to estimates of residues and emissions discussed?

Risks of Accidents and Hazards

1.49 Are any risks associated with the Project discussed?
- risks from handling of hazardous materials
- risks from spills fire, explosion
- risks of traffic accidents
- risks from breakdown or failure of processes or facilities
- risks from exposure of the Project to natural disasters (earthquake, flood, etc)

1.50 Are measures to prevent and respond to accidents and abnormal events described? (preventive measures, training, contingency plans, emergency plans, etc)

2. CONSIDERATION OF ALTERNATIVES

2.1 Is the process by which the Project was developed described and are alternatives considered during this process described? (for assistance, see the guidance on types of alternatives which may be relevant in Part B3 of the Scoping Guide in this series)

2.2 Is the baseline situation in the No Project situation described?

2.3 Are the alternatives realistic and genuine alternatives to the Project?

2.4 Are the main reasons for choice of the proposed Project explained, including any environmental reasons for the choice?

2.5 Are the main environmental effects of the alternatives compared with those of the proposed Project?

3. DESCRIPTION OF ENVIRONMENT LIKELY TO BE AFFECTED BY THE PROJECT

Aspects of Environment

3.1 Are the existing land uses of the land to be occupied by the Project and the surrounding area described and are any people living on or using the land identified? (including residential, commercial, industrial, agricultural, recreational and amenity land uses and any buildings, structures or other property)

3.2 Are the topography, geology and soils of the land to be occupied by the Project and the surrounding area described?

3.3 Are any significant features of the topography or geology of the area described and are the conditions and use of soils described? (including soil quality stability and erosion, agricultural use and agricultural land quality)

3.4 Are the fauna and flora and habitats of the land to be occupied by the Project and the surrounding area described and illustrated on appropriate maps?

3.5 Are species populations and characteristics of Habitats that may be affected by the Project described and are any designated or protected species or areas defined?

3.6 Is the water environment of the area described? (including running and static surface waters, groundwaters, estuaries, coastal wasters and the sea and including run off and drainage. NB not relevant if water environment will not be affected by the Project)

3.7 Are the hydrology, water quality and use of any water resources that may be affected by the Project described? (including use for water supply, fisheries, angling, bathing, amenity, navigation, effluent disposal)

3.8 Are local climatic and meteorological conditions and existing air quality in the area described? (NB not relevant if the atmospheric environment will not be affected by the project)

3.9 Is the existing noise climate described? (NB not relevant if acoustic environment will not be affected by the Project)

3.10 Is the existing situation regarding light, heat and electromagnetic radiation described? (NB not relevant if these characteristics of the environment will not be affected by the Project)

3.11 Are any material assets in the area that may be affected by the Project described? (including buildings, other structures, mineral resources, water resources)

3.12 Are any locations or features of archaeological, historic, architectural or other community or cultural importance in the area that may be bisected the Project described, including any designated or protected sites?

3.13 Is the landscape or townscape of the area that may be affected by the Project described, including any designated or protected landscapes and any important views or viewpoints?

DESCRIPTION OF ENVIRONMENT LIKELY TO BE AFFECTED BY THE PROJECT

3.14 Are demographic, social and socio-economic conditions (e.g. employment) in the area described?

3.15 Are any future changes in any of the above aspects of the environment that may occur in the absence of the project described? (the so- called Moving Baseline or No Project situation)

Data Collection and Survey Methods

3.16 Has the study area been defined widely enough to include all the area likely to be significantly affected by the Project?

3.17 Have all relevant national and local agencies been contacted to collect information on the baseline environment?

3.18 Have sources of data and information on the existing environment been adequately referenced?

3.19 Where surveys have been undertaken as part of the Environmental Studies to characterize the baseline environment are the methods used, any difficulties encountered and any uncertainties in the data described?

3.20 Were the methods used appropriate for the purpose?

3.21 Are any important gaps in the data on the existing environment identified and the means used to deal with these gaps during the assessment explained?

3.22 If surveys would be required to adequately characterise the baseline environment but they have not been practicable for any reason, are the reasons explained and proposals set out for the surveys to be undertaken at a later stage?

4. DESCRIPTION OF THE LIKELY SIGNIFICANT EFFECTS OF THE PROJECT

Scoping of Effects

4.1 Is the process by which the scope of the Environmental Studies was defined described?

4.2 Is it evident that a systematic approach to scoping was adopted?

4.3 Is it evident that full consultation was carried out during scoping?

4.4 Are the comments and views of consultees presented?

Prediction of Direct Effects

4.5 Are direct, primary effects on land uses, people and property described and where appropriate quantified?

4.6 Are direct, primary effects on geological features and characteristics of soils described and where appropriate quantified?

4.7 Are direct, primary effects on fauna and flora and habitats described and where appropriate quantified?

4.8 Are direct, primary effects on the hydrology and water quality of water features described and where appropriate quantified?

4.9 Are direct, primary effects on uses of the water environment described and where appropriate quantified?

4.10 Are direct, primary effects on air quality and climatic conditions described and where appropriate quantified?

4.11 Are direct, primary effects on the acoustic environment (noise or vibration) described and where appropriate quantified?

4.12 Are direct, primary effects on heat, light or electromagnetic radiation described and where appropriate quantified?

4.13 Are direct, primary effects on material assets and depletion of non-renewable natural resources (e.g. fossil fuels, minerals) described?

4.14 Are direct, primary effects on locations or features of cultural importance described?

4.15 Are direct, primary effects on the quality of the landscape and on views and viewpoints described and where appropriate illustrated?

4.16 Are direct, primary effects on demography, social and socio-economic condition in the area described and where appropriate quantified?

Prediction of Secondary, Temporary, Short Term, Long Term, Accidental, Indirect, Cumulative Effects

DESCRIPTION OF THE LIKELY SIGNIFICANT EFFECTS OF THE PROJECT

4.17 Are secondary effects on any of the above aspects of the environment caused by primary effects on other aspects described and where appropriate quantified? (e.g. effects on fauna, flora or habitats caused by soil, air or water pollution or noise; effects on uses of water caused by changes in hydrology or water quality; effects on archaeological remains caused by desiccation of soils)

4.18 Are temporary, short term effects caused during construction or during time limited phases of project operation or decommissioning described?

4.19 Are permanent effects on the environment caused by construction, operation or decommissioning of the Project described?

4.20 Are long term effects on the environment caused over the lifetime of Project operations or caused by build up of pollutants in the environment described?

4.21 Are effects which could result from accidents, abnormal events or exposure of the Project to natural or man-made disasters described and where appropriate quantified?

4.22 Are effects on the environment caused by activities ancillary to the main project described? (ancillary activities are part of the project but usually take place distant from the main Project location e.g. construction of access routes and infrastructure, traffic movements, sourcing of aggregates or other raw materials, generation and supply of power, disposal of effluents or wastes

4.23 Are indirect effects on the environment caused by consequential development described? (consequential development is other projects, not part of the main Project, stimulated to take place by implementation of the Project e.g. to provide new goods or services needed for the Project, to house new populations or businesses stimulated by the Project)

4.24 Are cumulative effects on the environment off the Project together with other existing or planned developments in the locality described?

4.25 Are the geographic extent, duration, frequency, reversibility and probability of occurrence of each effect identified as appropriate?

Prediction of Effects on Human Health and Sustainable Development Issues

4.26 Are primary and secondary effects on human health and welfare described and where appropriate quantified? (e.g. health effects caused by release of toxic substances to the environment, health risks arising from major hazards associated with the Project, effects caused by changes in disease vectors caused by the project, changes in living conditions, effects on vulnerable groups)

4.27 Are impacts on issues such as biodiversity, global climate change and sustainable development discussed where appropriate?

Evaluation of the Significance of Effects

DESCRIPTION OF THE LIKELY SIGNIFICANT EFFECTS OF THE PROJECT

4.28 Is the significance or importance of each predicted effect discussed in terms of its compliance with legal requirement and the number, importance and sensitivity of people, resources or other receptors affected?

4.29 Where effects are evaluated against legal standards or requirements are appropriate local, national or international standards used and relevant guidance followed?

4.30 Are positive effects on the environment described as well as negative effects?

4.31 Is the significance of each effect clearly explained?

Impact Assessment Methods

4.32 Are methods used to predict effects described and are the reasons for their choice, any difficulties encountered and uncertainties in the results discussed?

4.33 Where there is uncertainty about the precise details of the Project and its impact on the environment are worst case predictions described?

4.34 Where there have been difficulties in compiling the data needed to predict or evaluate effects are these difficulties acknowledged and their implications for the results discussed?

4.35 Is the basis for evaluating the significance or importance of impacts clearly described?

4.36 Are impacts described on the basis that all proposed mitigation has been implemented i.e. are residual impacts described?

4.37 Is the level of treatment of each effect appropriate to its importance for the development consent decision? Does the discussion focus on the key issues and avoid irrelevant or unnecessary information?

4.38 Is appropriate emphasis given to the most severe, adverse effects of the Project with lesser emphasis given to less significant effects

5. DESCRIPTION OF MITIGATION

5.1 Where there are significant adverse effects on any aspect of the environment is the potential for mitigation of these effects discussed?

5.2 Are any measures which the developer proposes to implement to mitigate effects clearly described and their effect on the magnitude and significance of impacts clearly explained?

5.3 If the effect of mitigation measures on the magnitude and significance of impacts is uncertain is this explained?

5.4 Is it clear whether the Developer has made a binding commitment to implement the proposed mitigation or that the mitigation measures are just suggestions or recommendations?

5.5 Are the Developer's reasons for choosing the proposed mitigation explained?

5.6 Are responsibilities for implementation of mitigation including funding clearly defined?

5.7 Where mitigation of significant adverse effects is not practicable or the developer has chosen not to propose any mitigation are the reasons for this clearly explained?

5.8 Is it evident that the EIA Team and the Developer have considered the full range of possible approaches to mitigation including measures to reduce or avoid impacts by alternative strategies or locations, changes to the project design and layout, changes to methods and processes, "end of pipe" treatment, changes to implementation plans and management practices, measures to repair or remedy impacts and measures to compensate impacts?

5.9 Are arrangements proposed to monitor and manage residual impacts?

5.10 Are any negative effects of the proposed mitigation described?

6. NON TECHNICAL SUMMARY

6.1 Does the Environmental information include a Non-Technical Summary?

6.2 Does the Summary provide a concise but comprehensive description of the Project, its environment, the effects of the Project on the environment and the proposed mitigation?

6.3 Does the Summary highlight any significant uncertainties about the Project and its environmental effects?

6.4 Does the Summary explain the development consent process for the Project and the role of EIA in this process?

6.5 Does the Summary provide an overview of the approach to the assessment?

6.6 Is the Summary written in non-technical language, avoiding technical terms, detailed data and scientific discussion?

6.7 Would it be comprehensible to a lay member of the public?

7. QUALITY OF PRESENTATION/ REPORTING

7.1 Is the Environmental Information available in one or more clearly defined documents?

7.2 Is the document(s) logically organised and clearly structured so that the reader can locate information easily?

7.3 Is there a table of contents at the beginning of the document(s)

7.4 Is there a clear description of the process which has been followed?

7.5 Is the presentation comprehensive but concise, avoiding irrelevant data and information?

7.6 Does the presentation make effective use of tables, figures, maps, photographs and other graphics?

7.7 Does the presentation make effective use of annexes or appendices to present detailed data not essential to understanding the main text?

7.8 Are all analyses and conclusions adequately supported with data and evidence?

7.9 Are all sources of data properly referenced?

7.10 Is consistent terminology used throughout the document(s)?

7.11 Does it read as a single document with cross referencing between sections used to help the reader navigate through the document(s)?

7.12 Is the presentation demonstrably fair and as far as possible impartial and objective?