



NamPower/NNF Strategic Partnership



Workshop proceedings

**Best practice guidelines for avian monitoring and impact mitigation
at proposed wind energy development sites in Namibia**

15 July 2015

Polytechnic of Namibia - Namibia Hotel & Tourism School

Windhoek

Background

Standardised national protocol/guidelines for wind energy Environmental Impact Assessments, that can be accepted and endorsed by the authorities and the industry, need to be developed for Namibia as a matter of urgency.

In South Africa the BirdLife SA-Endangered Wildlife Trust (EWT) Best Practice Monitoring Guidelines have been compiled and researched by experts, who have applied international best practice to southern African conditions and bird communities. These guidelines comply with the commitment to the objectives of the Convention on Biological Diversity (CBD), of which Namibia is also a signatory. Since their publication some three years ago they have been endorsed by the South African Wind Energy Association, Eskom and the IAIAs, and are routinely referred to by South African Department of Environmental Affairs.

The BLSA-EWT guidelines are also applicable to the greater southern Africa and would be an excellent model to follow, with adaptations for the Namibian situation as required.

The guidelines recommend a 3-4 tier assessment process that includes reconnaissance/scoping; pre-construction monitoring that feeds into the environmental management plan; post-construction monitoring; and further research if required. It is recommended that both sets of monitoring run on at least a quarterly basis (but ideally, more frequently) for a minimum period of one year, so the cost implications are substantial.

The main aim of the workshop was to present the BirdLife SA-EWT Best Practice Monitoring Guidelines to the Namibian industry, government, Environmental Assessment Practitioners and other stakeholders, and to explain the need for the monitoring procedures that are being recommended in order to obtain buy-in for the process in principle. The programme included discussions on the applicability of the South African guidelines to the Namibian situation and a brain-storming session on the pros and cons of the various monitoring methods in the Namibian context, with a recommended way forward for Namibia.

Welcome and introduction

Stephanie van Zyl (Chairperson EAPAN, Enviro Dynamics)

Stephanie welcomed all participants to this important milestone workshop. The initiative is supported by EAPAN (the Environmental Assessment Professionals of Namibia) which promotes best practice in Environmental Impact Assessments (EIAs).

By way of background to environmental assessments in Namibia, the Act was promulgated in 2007, and the Regulations in 2012. The last five years have seen a proliferation of EIAs across the board, including for renewable energy. In Namibia Environmental Assessment Practitioners (EAPs) are not regulated; EIAs may be done by anyone. EAPAN has a voluntary but strong membership. The market has become tighter, with no or few regulations or guidelines for EAPs, and more competitive. These pressures also affect the EIAs.

To date there are few wind energy projects in operation or under assessment in Namibia and these are mainly in the Lüderitz area, but this number has the potential to increase.

Stephanie thanked the NamPower/NNF Partnership for organising the workshop, in partnership with BirdLife South Africa, the Endangered Wildlife Trust and EAPAN. This collaboration will enable the situation in Namibia to be compared with that in South Africa, as a springboard for implementing the best guidelines.

Presentations

*Note that the four main presentations below may be downloaded in pdf format from the EAPAN website (www.eapan.org/resources).

1. Birds & wind farms in South Africa: *why guidelines...what guidelines?*

Dr Andrew Jenkins (Avisense Consulting, Birds and Renewable Energy Specialist Group [BARESG])

This presentation outlines why it was decided that guidelines were needed in South Africa, and how they were devised.

2. Wind Energy and Impacts on our Birds: Stakeholder engagement in South Africa

Dr Hanneline Smit-Robinson and Sam Ralston (BirdLife South Africa)

This presentation describes the process of obtaining buy-in from industry and essential stakeholders, and the formation of the Birds & Wind Energy Specialist Group (BAWESG, now BARESG).

3. Uptake of BirdLife South Africa/EWT Best Practice Guidelines for Bird and Wind Energy

Samantha Ralston-Paton (BirdLife South Africa)

This presentation describes working towards global acceptance and application by specialists and EAPs, oversight and quality control of work done, lessons learned and revision of the guidelines to the present version.

4. How do the *BirdLife SA-EWT best practice guidelines for avian monitoring and impact mitigation at proposed wind energy development sites in southern Africa* apply to the Namibian situation?

Dr Jessica Kemper (Bird specialist) & Dr Ann Scott (NamPower/NNF Partnership)

This presentation outlines environmental conditions in Namibia in relation to potential wind farm development, also highlighting sensitivities in terms of bird species and habitats.

Discussion points

EIA/SEA process

- An advantage is that we already have guidelines as a model to work from.
- Hard facts are needed to affect decision making and the mitigation of post-construction impacts.
- In order to influence post-construction impacts, practitioners need to build a relationship with regulating authority.
- In Namibia the EIA process starts long after the area has been selected; the land has been bought, with a large investment and commitment, so it is probably too late and there is little chance of influencing the impacts. Although site-screening and monitoring even before the EIA process are both encouraged, a Strategic Environmental Assessment (SEA) approach could be invaluable to identify potentially suitable areas beforehand or, alternatively, "no-go" areas. A SEA would help avoid investment in unsustainable sites. Responsible developers would also welcome this information right from the beginning.

- Proactive, strategic thinking is highly important in order to influence the process from as early on as possible; Namibia should therefore undertake a SEA, that should include local level sensitivity mapping to identify "no-go" areas as opposed to other areas with the least potential impact that developers could still investigate. The assessment should include the knowledge and experience already obtained in South Africa, information on species and habitats, etc. in order to produce appropriate sensitivity maps for Namibia. In this respect 60-70% of the required information is already available, as a start.
- Is the wind farm "threat" less in Namibia than in SA? If so, rather than focus on the guidelines, we should employ a strategic approach and then apply the guidelines. There may be a difference in scale; however, rather than underestimating what is expected to happen and its effects we should be prepared, with the necessary capacity, to handle such developments.
- We need to determine the actual, commercial potential for wind energy development in Namibia. While the best opportunities may be along the coast, it seems like there may be exploitable wind across much of the western half of the country. The domestic demands are clearly not sufficient to drive development in the way that they have in SA, but if export (e.g. to SA) is a viable proposition, Namibia might receive more wind farm proposals than is being presently anticipated.
- The above approaches should also apply to solar projects (particularly in the interior).
- The cost of a monitoring study should be in line with the size of the development (e.g. maximum 130-140 MW in SA, where a baseline study would cost R/N\$350 000-800 000 [twice the cost of a full EIA in Namibia]).
- International best practice should also be considered: in some countries the guidelines stipulate up to three years of monitoring.
- For the implementation of the guidelines the correct specialist needs to be used, also making use of local knowledge.
- Specialist reports should be reviewed independently and impartially by peers; this process includes the DEA team.
- Generating knowledge of impacts has the additional benefit of enabling better predictions to be made.
- Should wind energy developments be bundled together in a "wind farm park", to reduce impacts?

General

- Wind resources are very localised; wind energy developments in Namibia are likely to focus on the coast, where the wind levels and reliability are higher in the Lüderitz area.
- On the coast, bird groups such as flamingos, raptors, migrant and other shorebirds are at the highest risk; confirmation of flamingo flying heights is needed, although it would be difficult to obtain a "general flight altitude" that can be applied universally as heights depend on local weather, topographical conditions and the length/purpose of the flight.
- The relative heights of turbines (120-140 m at blade tip) and bird flight paths were discussed; radar accuracy is 15 m and 3-D.
- Offshore wind energy developments in the sea off Namibia are not considered to be a feasible option as the coastline is not conducive.
- Wind energy development in Namibia is limited by the number of people and by consumption. South Africa has resources including power supply structures and grid; Namibia has a limited power line grid, and wind developments would need to be close to a large centre (20-30 km at most); otherwise a large new power line would be required.
- Early wind farms in South Africa were approved without monitoring yet the developers still did the monitoring, due to the financiers' requirements. This means that the cost argument is not always valid; the downside of this is that the information is not in the public domain.
- The impacts of wind energy developments on bats are also considerable, and guidelines on this aspect are available. Very poor data is available on bats in Namibia; impacts of wind energy developments cannot be extrapolated from bird movements/impacts.

Proposed actions

- The NamPower/NNF Partnership is to set up a first meeting with the Department of Environment Affairs (DEA) and EAPAN to discuss the following aspects, namely to:
 - Conduct a Strategic Environmental Assessment (SEA), so that sensitivity becomes part of the adapted guidelines and linked to regulations;
 - Initiate a process, starting with sensitivity mapping: many sensitive/no-go areas have already been mapped; focus on birds and other key issues, then align guidelines if necessary; incorporate bird movements where possible; employ a broader approach: more integrated but with layers (e.g. wind, birds, other aspects); scale to be determined; start with Lüderitz;
 - Following the SEA and site screening, monitoring as per the BLSA/EWT guidelines is still recommended prior to decision making by the DEA; the intensity of the monitoring should be determined by the scale and sensitivity of the specific project;
 - Investigate potential sources of funding if needed, e.g. for sensitivity mapping;
 - Determine the actual, commercial potential for wind energy development in Namibia;
 - Obtain support from other key stakeholders, including the Sustainable Development Advisory Council.
- The above approach should also apply to solar energy development projects.
- Combine power line and wind and solar energy issues into one ENERGY issue. Maintain contact with stakeholders and other interested parties; establish a Birds and Renewable Energy Forum for Namibia, and if need be a Birds and Energy Specialist Working Group.

Wrap-up

On behalf of the NamPower/NNF Strategic Partnership, Ann Scott thanked Stephanie van Zyl for her able chairmanship of the workshop; the guest presenters, Andrew Jenkins, Hanneline Smit-Robinson, Sam Ralston and Jessica Kemper for their stimulating and informative contributions; and all the other participants for their constructive inputs. The Namibia Hotel & Tourism School was thanked for providing the venue and refreshments. Stephanie thanked the NamPower/NNF Partnership for taking the initiative of organising the workshop.

Workshop inquiries:

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Some of the participants at the workshop on best practice guidelines for avian monitoring and impact mitigation at proposed wind energy development sites in Namibia, Windhoek 15 July 2015.

APPENDIX 1: PARTICIPANT CONTACT DETAILS

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