

Powerline and Wildlife Interaction at NamPower

The NamPower / Namibia Nature Foundation Strategic Partnership was launched in October 2008. This ground-breaking industry-conservation initiative in Namibia has been generously funded by the European Investment Bank (EIB). The mission of the Partnership is to address electricity supply/wildlife interactions in Namibia. The objectives of the partnership are to:

- Monitor, report, research and manage electricity supply and wildlife interactions;
- Incorporate wildlife mitigation for all impacts into existing electricity supply networks, and into the planning of future networks;
- Promote awareness, education, communication and collaboration about the risks that the electricity supply poses to wildlife and wildlife to the electricity supply; and
- Develop an over-arching, easily accessible environmental information service to assist with achieving the above objectives.

Management decisions need to be based on good data, and the Partnership has been busy collating records of wildlife and power line incidents. Migrant and/or nomadic bird species have been involved in the greater part of these incidents to date, chiefly bustards (more than 50% of the incidents, and up to 75% in the south) and flamingos (25%), both mainly in collisions with power lines. Flamingos, especially, are prone to collisions due to their habit of flying low at times and at night or in poor light, in groups. Bustards are large and heavy, with limited manoeuvrability and are restricted by a "blind spot" when flying forward. The conservation of migratory birds needs to be considered in all phases of energy development at multiple levels - locally, nationally and internationally.

The following activities have been achieved by the partnership thus far:

1. Powerline Surveys

Surveys are conducted along powerline routes. Walking is regarded as the best method for spotting carcass remains; alternatively, driving very slowly (<20 km/hr) or using a combination of driving and spot checks with walking is also recommended. Two persons walk parallel to each other, a few metres apart.



Figure 1: The team from Orano Mining Namibia investigates an incident on a powerline on the mine (L to R): Richard Gurirab, Helmut Ochurub and Kaarina Nkandi, with Mike Scott (photo: Ann Scott)

2. Incident Recording

When carcass remains are spotted the following details are recorded as per the survey form:

- GPS position and time
- Photograph of the incident
- Identify the carcass, if possible; if the species is unknown, record it as such
- State/freshness of carcass
- Position of carcass in relation to the towers and to the centre line of the powerline(s)
- Mitigation devices fitted to the powerline, and whether these devices are present at the site of the incident
- Any pertinent habitat details (e.g. proximity to a water body)



Figure 2: Ludwig's Bustard remains after being scavenged and a flamingo after the carcass has been scavenged (photo: Ann Scott)

3. Training

The NamPower/Namibia Nature Foundation Strategic Partnership conducts basic on-site training in wildlife and powerline monitoring. The programme includes a general introduction to common types of wildlife and power supply interactions in Namibia, mitigation measures to avoid powerline incidents, methods for monitoring and feedback on results of monitoring to date, and bird identification.

4. Recommendations for Wildlife Interaction Mitigation

The NamPower/ NNF Strategic Partnership has recommended mitigation measures for various powerlines in hotspot areas. NamPower uses a combination of marking devices namely, alternating spiral double loop bird flight diverters (BFDs) and large fluorescent black and white "flappers" to make the lines more visible as seen in figure 3 a) and b) below.



(a)



(b)

Figure 3: (a) Fitting of bird flappers on 132 kV Kuiseb-Walvis Bay power line as a mitigation for bird collisions and (b) the bird diverters used as another mitigation measure to mitigate bird collision on NamPower powerlines. (photos by: Ann Scott).