

## **EcoWings Namibia**

### Aerial support for the environment

# Combatting environmental crime and supporting monitoring, research and management in Namibia

Namibia's plants, animals and ecosystems are threatened by illegal activities perpetrated by increasingly sophisticated international and regional criminal syndicates. Combatting these varied environmental crimes – from poaching rhino and other high value animals and plant species through to illegal logging, fishing, mining, off-road driving and other forms of environmental destruction – requires a full toolbox of law enforcement approaches that prevent crime and respond rapidly when incidents occur.

Namibia has made great progress through collaborative efforts by state entities, non-governmental organisations (NGOs), the private sector, affected communities and landowners. The Blue Rhino Task Force, black rhino custodianship programme and rhino ranger programme are among the many examples of successful anti-poaching and law enforcement measures involving the Ministry of Environment, Forestry and Tourism (MEFT) working alongside the Protected Resources Division of NamPol, the Office of the Prosecutor General, in partnership with NGOs, communities, private sector, donors and numerous other stakeholders.

These collective efforts are constantly being challenged by the syndicates who adapt their methods in response to law enforcement. The rhino, pangolin, succulent plant and related poaching crisis requires constant vigilance and innovation to keep up with professional criminal syndicates.

Meanwhile other threats to high value and endangered species, biodiversity in general, landscapes and terrestrial and marine ecosystems require ongoing attention by means of monitoring, research and management. This includes illegal mining, illegal fishing (vessels entering Namibian waters, the use of monofilament nets on inland waters), illegal timber harvesting and many others.

The Namibian Chamber of Environment (NCE), together with Westair, set up a programme to provide aerial support for its members to carry out aerial wildlife surveys, locate tagged animals, provide an aerial deterrent to poachers over high-risk periods, carry out vegetation surveys and other conservation work. This initiative has proven to be highly successful. Building on this, EcoWings Namibia was established to formalise aerial support services and

broaden the base to include other partners, both on the operational and support ends. We anticipate EcoWings Namibia evolving into a national aerial support service for the whole environmental sector.

#### **Introducing EcoWings Namibia**

EcoWings Namibia adds an aerial dimension to the fight against environmental crime and to the monitoring, research and management needs of organisations in Namibia.

The presence of an aircraft deters poachers and increases the effectiveness of ground teams many times over, thus boosting morale with improved outcomes. Illegal logging, plant smuggling, off-road driving, illegal fishing nets, fishing vessels crossing illegally into Namibian waters, poacher camps and illegal mining activities are all visible from the air, which will increase the protection in remote areas that are difficult for regular ground patrols to reach. At the same time, the location and distribution of key wildlife species can be monitored, and ground patrols directed to target areas.

Support to monitoring and research programmes could include aerial game counts, vegetation surveys, finding collared and tagged animals, locating animals for a helicopter with a veterinary immobilising team to dart animals, and similarly for rhino dehorning, thereby saving many hours of expensive chopper flying time, and many other operations.

Led by highly experienced bush pilot, veterinarian and PhD zoologist, Dr Conrad (Nad) Brain, the EcoWings unit includes veterinary interventions, pilot training, community involvement, youth outreach components and aerial medical rescue linked to environmental crises, besides the main tasks of crime prevention, monitoring, research and rapid response for law enforcement. The core team of four including Dr Nad Brain, one other experienced bush pilot, David Francis, and two assistants working closely with ground teams across the country. EcoWings will also partner with the University of Namibia's (UNAM) veterinary school and Wilderness Safaris' youth programme for veterinary and youth outreach work, respectively.

Dr Brain is a former MEFT veterinarian and pilot who was based in Etosha National Park for many years, and more recently a pilot and guide for Wilderness Safaris. He has conducted many missions in support of anti-poaching teams in the Etosha area and in north-western Namibia alongside Save the Rhino Trust, MEFT, Special Protected Resources Division of NamPol and communal conservancies. He is arguably Namibia's most experienced bush pilot.

Dave Francis is a hugely experienced pilot, having captained Air Namibia's long-haul flights to Europe and elsewhere. He is a former pilot with the Namibian Airforce and has extensive bush-flying experienced, having participated in many wildlife surveys, anti-poaching and monitoring missions.

The establishment of EcoWings will support and expand previous work to include other parts of the country, support the work of more organisations, and address other needs and threats. Through the Namibian Chamber of Environment (NCE), partnerships with WestAir,

FlyNamibia and Welwitschia Insurance are already in place. Wilderness Safaris has come on board as an anchor sponsor for the project, providing Nad Brain's time and providing ground support. We are also happy to announce that FirstRand – FNB Foundation have provided generous financial support to EcoWings for the next three years. All funds and assets donated to EcoWings are controlled, audited and administered by the Namibian Chamber of Environment. Other partners include various NGOs such as Save the Rhino Trust, Namibia Nature Foundation and Rooikat Trust. EcoWings also works in close association with the Ministry of Environment, Forestry and Tourism, and provides support to a number of their initiatives. Similar partnerships will be explored with other government and nongovernment organisations, who are welcome to contact us.

An important principle of EcoWings Namibia is its low-key profile. It will **not** be on social media, it will **not** seek attention to itself, and all its activities will be kept **in confidence**, except where its implementing partner organisation(s) wish to publicise aspects of their work in association with EcoWings.

#### **EcoWings activities**

#### Regular anti-poaching missions

The EcoWings team works closely with stakeholders who are engaged in fighting wildlife crime, and particularly with the Blue Rhino Task Force, the Rhino Custodianship programme and the MEFT more generally.

Looking forward, future operations may include assisting dehorning teams, patrolling particular areas during times of heightened vulnerability (e.g. the Kunene Region during Christmas season), among others.

The existing ground teams in each cluster (e.g. rangers, game guards, anti-poaching units) will be briefed on the extent and purpose of each EcoWings operation to ensure that maximum use is made of the aircraft during each mission. The ground teams will be able to highlight problem areas or remote locations that are rarely patrolled as key targets for EcoWings to reach during their mission. This synergy will boost the morale of ground teams and increase their effectiveness during and after each mission.

Flights during and between regular missions will be used to identify and report environmental threats that may otherwise go unreported. This includes illegal mining operations, suspected poaching and logging camps, illegal off-road driving, and illegal fishing nets. Prompt reporting to relevant MEFT officials and other stakeholders (e.g. conservancies) will greatly increase the effectiveness of law enforcement in these areas.

#### Rapid response

With two aircraft and two pilots available at any one time, the EcoWings team can cover both regular missions and remain on standby for rapid response purposes. The EcoWings rapid response team will address emerging and current poaching threats, particularly relating to rhinos and other specially protected species.

The team will respond to reports of poacher presence and/or recent poaching cases in state protected areas, private reserves/conservancies and communal conservancies in an effort to prevent poaching and/or assist ground teams to find and apprehend poachers. These blitz operations are likely to increase the number of arrests and reduce the number of poaching incidents simultaneously by targeting active poaching teams.

The pre-emptive anti-poaching work and the rapid response capability are important objectives of EcoWings. However, while on pre-emptive anti-poaching missions, a number of other important services can be undertaken. There are:

#### Community and youth outreach support

Based on past experience, taking young people and key community leaders on flights over their villages and land greatly increases the awareness of the role of aircraft in reducing poaching. These quick trips help spread the message that poaching is a dangerous and undesirable occupation, thus reducing local cooperation with criminal syndicates.

EcoWings will fly small teams of environmental educators to remote villages and schools to engage communities, particularly young people, in areas that otherwise receive little attention. The rural youth is a particularly important target audience for environmental messages, as they can become agents for positive behavioural change within their communities.

#### Veterinary services and training

The lead pilot for EcoWings, Dr Brain can provide emergency veterinary assistance during regular missions. Additionally, EcoWings will lead spay/neuter and vaccination campaigns in remote areas with teams of young veterinarians from UNAM. The lack of veterinary services in these areas allows for the spread of medically significant animal diseases (e.g. rabies) and uncontrolled breeding of cats and dogs, with associated environmental impacts.

During their participation in regular mobile vet clinics, young Namibian vets will be trained as first responders for wildlife veterinary emergencies. In this way, Dr Brain will transfer his experience and knowledge to a new generation of Namibian vets who can work in remote areas on both wildlife and domestic animals.

#### Pilot training

To effectively support anti-poaching, monitor wildlife populations by means of aerial surveys, or obtain information about illegal activities, pilots must be able to fly at around 500 feet altitude over extended periods and land safely on airstrips in variable conditions. Bush flying skills such as these are not generally taught during flight school, as commercial pilots tend to fly at higher altitudes and land on tarred surfaces.

Few pilots have the bush flying skills and experience that Dr Brain and Dave Francis have gained over many years. Their knowledge is therefore an extremely valuable resource that can be used to upgrade the flying skills of young pilots in Namibia. Developing a larger pool of Namibian pilots with bush flying skills will benefit both the conservation and tourism sectors. EcoWings will therefore train young Namibian pilots in bush flying, allowing them to benefit from the knowledge and experience of the EcoWings team.

#### Medical support

Having Westair Medical Rescue Africa (MRA) as part of this initiative will facilitate aeromedical evacuation of critically ill and injury patients involved with environmental defense work across Namibia. Given the remoteness of the work of EcoWings and its partners, MRA have offered a Medical Emergency Response Plan (MERP) that covers all aspects of medical communication, response, management & evacuation, including emergency & primary health care medical supplies, First Aid Courses (basics & relevancy to remote areas), Air Ambulance evacuation services and telemedicine support services with on-call Doctors.

#### Monitoring, research and management

The normal aerial support services provided by the NCE-Westair partnership to NCE members will continue, but will now be broadened to other organisations in the environment sector in Namibia. This includes aerial wildlife counts, vegetation and wetland surveys, location of collared and tagged animals, support to veterinary and research work involving immobilizing animals for monitoring and dehorning, taking aerial photographs of mining areas to monitor footprints, and many other initiatives which may aid improved and efficient environmental management.

#### Operational and funding partners

EcoWings fits within and augments Namibia's conservation landscape by working closely with multiple partners within the state, private and non-profit sectors. This work is low-key in terms of profile, but highly significant in terms of impact. EcoWings avoids publicity and drawing attention to itself because of the sensitive intelligence information it may have, and will work under the mantles of existing state-approved programmes and collaborations to enhance their outcomes. The existing programmes and institutional arrangements will provide critical information, guidance, oversight, ground support and expertise to ensure successful and effective operations covering all aspects of EcoWings' work. Table 1 indicates existing and envisaged partners and their roles. More partners are likely to come on board as EcoWings takes off.

Table 1. Stakeholders currently involved in combatting wildlife crime and who are already work or could potentially work with EcoWings in various different roles. This list will likely expand once the project is launched.

Name of organisation	Sector	Role
MEFT – head office	State	Project approval and oversight, strategic planning
MEFT – regional offices and	State	Site-specific planning for operations/rapid
national parks offices		response, ground support, follow up on reports
MEFT black rhino custodian	State	Strategic planning, dehorning operations, liaison
programme		with rhino custodians
Blue Rhino Task Team	State	Intelligence, law enforcement, strategic planning,
		guidance, operational oversight
Namibian Police	State	Law enforcement, strategic and site-specific
		planning
Namibian Defence Force	State	Law enforcement, strategic and site-specific
		planning
MEFT – Directorate of	State	Follow up on deforestation and plant poaching
Forestry		reports, planning for plant-focused operations,
·		combating illegal timber harvesting
MEFT – Department of	State	Follow up on environmental destruction activities
Environmental Affairs		– e.g. illegal prospecting and mining, and other
		illegal developments
Ministry of Fisheries and	State	Follow up on illegal fishing activities, planning for
Marine Resource (MFMR)		fisheries-focused operations (coastal and inland)
University of Namibia	SOE	Operation, staffing, equipment and medicine for
Veterinary School		mobile vet clinic
Namibian Chamber of	NGO	Access to funding, strategic planning,
Environment		institutional support
Save the Rhino Trust	NGO	Ground support and planning for site-specific
		operations
Rooikat Trust	NGO	Intelligence, law enforcement, strategic planning
Namibia Nature Foundation	NGO	Integration with cross-sectoral programmes,
		strategic planning, institutional support
Communal Conservancies	CBOs /	Ground support and planning for site-specific
and relevant NACSO support	NGOs	operations
organisations		
Freehold Conservancies,	NGOs /	Ground support and planning for site-specific
CANAM	Private	operations
Rhino custodians and	Private	Ground support and planning for site-specific
owners (freehold land)		operations
Wilderness Safaris	Private	In-kind funding, human resources, youth and
		community outreach programme, base for
		relevant site-specific operations
Westair	Private	Aircraft maintenance, human resources (pilot
		trainees)
Westair Medical Rescue	Private	Medical support including aeromedical
Africa (MRA)		evacuation, First Aid Courses and telemedicine
		support services with on-call Doctors
FlyNamibia	Private	Aerial support

Privately protected areas	Private	Logistics base for relevant site-specific
and lodges		operations, possible funding
Corporates, banks and	Private	Funding, equipment, service support, etc.
businesses		

#### Human resources, equipment requirements and budget

The project lead, Dr Conrad Brain, is a bush pilot, wildlife veterinarian and PhD zoologist with over 35 years of experience and a detailed knowledge of Namibian conservation and anti-poaching efforts. He is ably supported by David Francis, a former AirNamibia pilot, and Namibian air force pilot with over 30 years of flying experience. In addition to the pilots, EcoWings has an operations coordinator to assist with planning and implementing all operations. A fourth employee will provide logistical assistance while the team is deployed in the field.

Two staff members employed by Wilderness Safaris will manage the youth and community outreach projects, while two pilot trainees from Westair will join the EcoWings pilots on selected missions. Veterinary students from UNAM will join the team to operate the mobile vet clinic.

Two light aircraft are available to EcoWings, with a third one is under discussion. We are still looking for a reliable 4x4 vehicle, to provide ground support for operations, along with necessary field equipment for extended periods of camping. To date, an old Land Rover is provided on loan from Wilderness Safaris. Veterinary medicines and equipment will be supplied by UNAM.

#### **EcoWings has taken-off**

EcoWings is a game changer for Namibia's fight against environmental crime. Having an 'eye in the sky' gives anti-poaching teams an edge over poachers, while numerous other illegal activities will be discovered and reported to bolster law enforcement responses. Criminal syndicates working across the country will soon become aware of the rapid response team, while their activities will be disrupted by the regular missions that boost anti-poaching effectiveness in vulnerable areas.

The veterinary and youth outreach programmes, and MRA medical support are major positive spin-offs of EcoWings, bringing services and education to communities that are virtually inaccessible to other state or NGO programmes. Pilot and veterinary training sessions will greatly increase the capacity and pool of skills available to the conservation and tourism sectors in future.

The EcoWings concept is rooted in partnerships among carefully selected multiple state and non-state actors with strong track records, thus building on existing Namibian approaches to conservation that have proven to be highly successful. This responsive, flexible team could be the start of even greater ambitions of taking conservation to the air to address multiple threats while providing services and skills where they are most needed.

#### Track record to date

Five operations have been successfully completed to date:

- 1. An aerial deterrent operation with SRT and MEFT in the north-west over the Christmas / new year period;
- 2. An oryx immobilization operation in the central Namib for research, locating herds of animals to guide in a helicopter and veterinary team; and
- 3. A game count in the north-west of Namibia, to coincide with the annual NW conservancy game counts;
- 4. An investigation of mining operations in the north-west, west of Etosha; and
- 5. A wildlife survey in part of the Nyae-Nyae Conservancy with SRT and MEFT.

We await your interest in making use of this exciting aerial support service to assist you with your conservation and environmental work. Funding is available to assist where necessary.

Please contact one of the following for enquiries:

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