

# INTEGRATING PROTECTION OF MIGRATORY SOARING BIRDS INTO EGYPT'S RENEWABLE ENERGY SECTOR

GOVERNMENT AND CIVIL SOCIETY IN PARTNERSHIP

'ON THE GROUND' CHANGES

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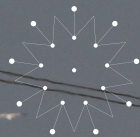
OUTCOMES FOR BIRDS AND TURBINES

FLYWAY-FRIENDLY TOURISM

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## INTEGRATING PROTECTION OF MIGRATORY SOARING BIRDS INTO EGYPT'S RENEWABLE ENERGY SECTOR

*Egypt plans to generate 20% of its energy from renewable sources. The Migratory Soaring Bird project is making sure that these plans minimise risks to migratory soaring birds, which are threatened by collisions with wind turbines and electrocution on power lines.*

Egypt is situated at a critical point along the Red Sea/Rift Valley flyway<sup>1</sup>. Every year, around two million migratory soaring birds fly over the country, as they journey between wintering grounds in Africa and breeding grounds in Europe and Central Asia. These birds rely on hot air currents to glide, so they must migrate over land, leading to bottlenecks at crucial passages such as crossing points at the Red Sea and Gulf of Suez. The flyway then follows narrow corridors along the Red Sea coasts and the Nile Valley. Migratory soaring birds are at particular risk from incautious development in these areas – which include many of the most promising sites for wind energy development.

The government of Egypt has declared its commitment to renewable energy, to address climate change. Although well-intentioned, poorly situated and designed renewable energy projects can be disastrous for migratory soaring birds. The risks are exacerbated by the cumulative impacts of developments along the flyway. A common solution needed to be found.

### GOVERNMENT AND CIVIL SOCIETY IN PARTNERSHIP

The Migratory Soaring Birds (MSB) Project was set up in 2008, to mainstream conservation into different sectors, including energy, that threaten migratory soaring birds along the Red Sea/Rift Valley flyway. The project works in 11 countries, and focuses on 37 species, including raptors, storks, pelicans and cranes. Five of these are globally threatened, and are found in Egypt.

The MSB Project is implemented by BirdLife International, financed by the Global Environment Facility (GEF) and supported by UNDP. Key partners in Egypt are Nature Conservation Egypt (national BirdLife Partner), the National Renewable Energy Authority (NREA) and the Egyptian Environmental Affairs Agency (EEAA).

Building trust between the MSB Project team and the energy sector has proved to be fundamental. The NREA, for instance, is tasked with achieving 20% of generated energy from renewable sources by 2020, and is a key entry point for the Project within the industry.

The EEAA is committed to protecting migratory birds and is responsible for reviewing Environmental Impact Assessments (EIAs) for energy projects, and monitoring environmental impacts after construction. The EEAA also hosts the MSB team, so the Project is well placed to influence decision-makers. Nature Conservation Egypt provides technical support for the EEAA.

A critical step was the formalising of these relationships: in December 2012, the MSB Project, the NREA and the EEAA signed a Memorandum of Understanding (MOU) that provides a framework for cooperation. This set the ground for the project team to gather evidence on the impacts of wind farms on migrating birds, and to share this with decision-makers.

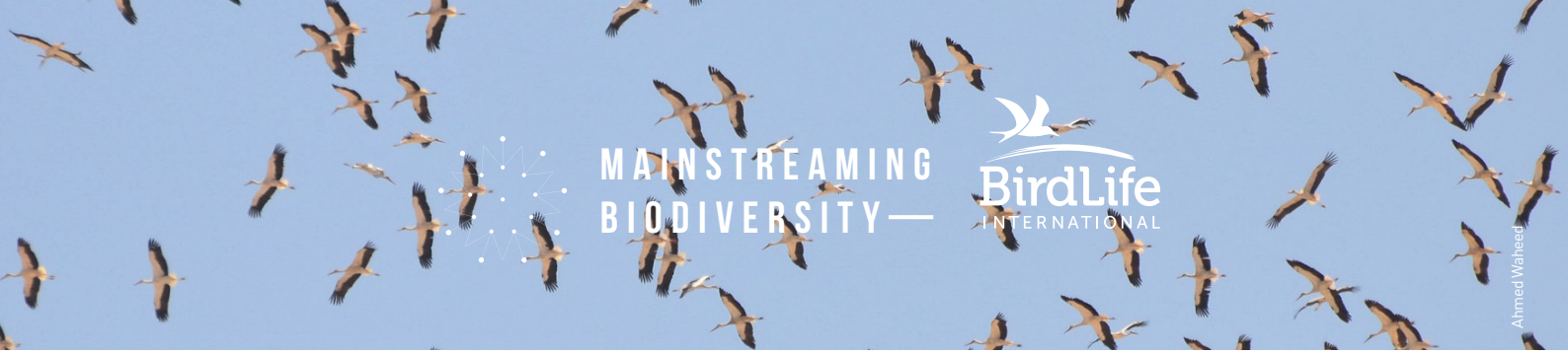
### THE ROLE OF DATA AND COMMUNICATION IN DECISION MAKING

Data collection has been a fundamental part of this initiative. Information on the interaction of birds with energy infrastructure was collected during regular bird surveys, and the evidence collected was not only to inform decisions on future developments, but it also supplemented previous EIAs. Some of these had suggested that wind farms would be sustainable despite being located in critical bottlenecks and Important Bird and Biodiversity Areas (IBAs).

The Soaring Bird Sensitivity Map is another source of information to help decision-making. This tool was produced by BirdLife, and shows species distribution along the Red Sea/Rift Valley flyway. Other technical materials provide guidance, and cover steps for energy development planning, EIAs, construction, management and monitoring. Together with survey data, this enables developers and planning authorities to site and manage developments appropriately.

Communication has been another essential approach within the Project, which calls on the region's tradition of hospitality towards guests (to welcome the migratory birds), whilst emphasising the role of birds in a healthy

<sup>1</sup> A flyway is the geographical area covered by a migrating bird, including breeding and non-breeding grounds, and the routes taken between these.



environment. Regular meetings of stakeholders are carried out and supplemented by field visits. Official monthly meetings are followed by focal points from the project and the authorities. Events, outreaching to media, publications and other documents adds up to the communication strategy.

## OUTCOMES FOR BIRDS AND TURBINES

Policies put in place by the EEAA and the NREA were amongst the positive outcomes of the MSB Project. These policies clearly embed biodiversity into energy development, incorporating guidelines produced by the Project, and these increasingly drive the work to reduce harm to migrating birds.

Other positive developments include budget being allocated by the NREA for surveys and post-construction monitoring, including bird migration studies at all wind farm projects. These will reduce impacts on birds, particularly as they include guidance on shut-down-on-demand systems, which temporarily shut off wind turbines at critical times for birds.

Equally significant are the EIA Guidelines and Monitoring Protocols for Wind Energy Development Projects that have been adopted as national regulations, applying to all new energy developments. The Project team disseminates this

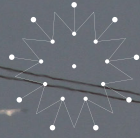
document among the investors, EIA offices on national and international level through different meetings, and by organizing special workshops to discuss the document and the need to follow EEAA conditions.

## 'ON THE GROUND' CHANGES

One example of implementation of the improved policies comes from Gabal el Zait, the largest area of wind farms in Africa. The first pilot wind farm, inaugurated in 2015, was financed by the German development bank KfW, and is testing a protocol for shut-down-on-demand. This protocol uses radar to monitor migrating birds and inform decisions on shutting down turbines. It is also testing measures such as post-construction monitoring.

A strong counter-argument to the case for mainstreaming biodiversity into renewable energy was the economic cost of modifying practices. If a fixed shut-down procedure were to be applied, electricity loss could amount to about 9% of the total generated in one migration season. However, the shut-down-on-demand system reduces the loss to 2.2%. The MSB Project is therefore collecting further data under the two different schemes, to produce even more robust and comparable evidence of the effect of each on bird populations. Achievements so far already demonstrate remarkable progress in finding mutually beneficial ground between the needs of the energy sector (including the values





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of energy loss) and the importance of a healthy migratory population for both local and regional benefit.

Another practical outcome is a Strategic Environment Assessment (SEA), supervised by the EEAA, in response to a request from the NREA, across a vast area of 255km<sup>2</sup>, and covering more than 26 projects. Wind farms across the Gulf of Suez will be managed through one Active Turbine Management System, designed to take account of the soaring birds' migration period.

## FLYWAY-FRIENDLY TOURISM

The efforts for mainstreaming migratory birds in Egypt goes beyond the work with the energy sector. The MSB Project also works with the tourism and water treatment industries. There is a signed protocol between the Environment Ministry and South Sinai Governorate to protect migratory soaring birds at the Sharm El-Sheikh water treatment ponds, where tens of thousands of storks congregate during the autumn migration. In April 2015, two bird watching towers were inaugurated, one at these ponds, where training helps local tour guides understand this valuable biodiversity, and the other at Ras Mohamed National Park. The MSB Project produced a handbook for tour guides called Maximising the value of birds and wildlife for bird watching tourism.

A partnership with Jaz Hotels, Resorts & Cruises (a national hotel chain) is developing a 'flyway-friendly' tourism certification, raising awareness of the spectacular migration, and undertaking site management for birds migrating through hotel grounds, based on the MSB project guidelines for flyway-friendly hotels.

## LEARNING THE LESSONS: IN SUMMARY

There were various challenges to the development of this initiative, ranging from limited understanding of the flyway concept to the difficulty in influencing national regulation and energy development. The formal agreement signed off between the Project team, NREA and EEAA proved to be the cornerstone. Strong leadership and communication were critical to reaching the point where this could be signed.

Also vital were complementary national and international policies to safeguard migratory birds. The latter came from the International Financial Institutes (IFI) such as the German Bank KfW, which finances energy development in the country.

More information at:

- [www.migratorysoaringbirds.undp.birdlife.org/en](http://www.migratorysoaringbirds.undp.birdlife.org/en)
- [www.egyptindependent.com/news/when-migrating-birds-and-wind-turbines-collide](http://www.egyptindependent.com/news/when-migrating-birds-and-wind-turbines-collide)
- [www-wds.worldbank.org/external/default/WDSContentServer/WDSP/MNA/2014/06/13/090224b0824f5686/1\\_0/Rendered/INDEX/Integrated0Saf0nt0Project000P113416.txt](http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/MNA/2014/06/13/090224b0824f5686/1_0/Rendered/INDEX/Integrated0Saf0nt0Project000P113416.txt)

Factsheets:

- Balancing hunting culture and nature conservation in Syria and Lebanon.
- International investment in renewable energy: safeguarding migrating birds along the Red Sea/Rift Valley flyway.

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*The project team acknowledges Osama El-Gebaly (National Project Manager) and Osama Al-Nouri (MSB Project Coordinator) for providing information on the case study, and the valuable writing from Annie Cooper, policy consultant at BirdLife International.*