



Critical Habitat Assessment for the Shadwan 900 MW Wind Farm Project, Egypt



Cover image: Nubian Ibex by Filipe Canário (TBC) photo taken in Wadi Gemal NP

Authors: This report was compiled by TBC (Daniel Pires, Filipe Canário, Vineet Katariya, Mihai Coroi).

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Acronym table

Acronym	Definition
AZE	Alliance for Zero Extinction (site)
BAP	Biodiversity Action Plan
CH	Critical Habitat
CHA	Critical Habitat Assessment
CR	Critically Endangered
EAAA	Ecologically Appropriate Area of Analysis
EBRD	European Bank of Reconstruction and Development
EIB	European Investment Bank
EN	Endangered
EOO	Extent of Occurrence
ESR6	(EBRD) Environmental and Social Requirement 6
ESIA	Environmental and Social Impact Assessment
EU	European Union
GBIF	Global Biodiversity Information Facility
GN	(IFC) Guidance Note
IBA	Important Bird and Biodiversity Area
IBAT	Integrated Biodiversity Assessment Tool
IFC	International Finance Corporation
IRA	Internationally Recognised Areas
IUCN	International Union for Conservation of Nature
KBA	Key Biodiversity Area
LC	Least Concern
LPA	Legally Protected Area
NH	Natural Habitat
NNL	No Net Loss
NT	Near Threatened
MH	Modified Habitat
OHTL	Overhead Transmission Line
PA	Protected Area
PBF	Priority Biodiversity Feature
POWO	Plants Of the World Online
PS6	(IFC) Performance Standard 6

Acronym	Definition
RCREEE	Regional Centre for Renewable Energy and Energy Efficiency
RR	Restricted Range
SCADA	Supervisory Control and Data Acquisition
TBC	The Biodiversity Consultancy
UNESCO	United Nations Educational, Scientific and Cultural Organization
VU	Vulnerable
WFO	World Flora Online

Executive summary

This report is the Critical Habitat Assessment (CHA) for the Shadwan 900 MW Wind Farm (the Project), in alignment with the International Finance Corporation (IFC) Performance Standard 6 (PS6), the European Bank for Reconstruction and Development (EBRD) Environmental and Social Requirement 6 (ESR6), and the European Investment Bank (EIB) Environmental and Social Standard 4 (ESS4).

The purpose of the CHA is to determine the presence of Critical Habitat (CH)-qualifying biodiversity features, Natural Habitat (NH), Priority Biodiversity Features (PBFs) and any overlap with Protected Areas or otherwise Internationally Recognised Areas, which will require special attention and specific mitigation planning under IFC PS6, EBRD ESR6 and EIB ESS4.

A total of 374 species were identified as having global ranges that overlapped the Project area, and 38 were screened in detail against PS6, ESR6 and ESS4 thresholds, using global datasets, available literature and field data. The CHA was carried out for two Ecologically Appropriate Areas of Analysis (EAAAs) for resident species, one for five species with smaller home ranges and another for the Greater Mouse-tailed Bat (*Rhinopoma microphyllum*) which has a broader home range. Since establishing an EAAA for migratory birds in the context of a broad flyway is challenging, a specific EAAA was established where migratory birds were screened against CH criteria. This area consisted of the Project border and the airspace up to 240 m height.

This CHA determines that:

- Two migratory soaring bird species trigger Critical Habitat: Steppe Eagle (*Aquila nipalensis*) and White Stork (*Ciconia ciconia*) under IFC PS6 Criterion 3, EBRD ESR6 Criterion 4 and EIB ESS4 Criterion 4 due to regular passage of more than 1% of the global population through the soaring bird EAAA;
- 98 species of birds and two other species, Egyptian Spiny-tailed Lizard (*Uromastix aegyptia*) and Dorcas Gazelle (*Gazella dorcas*), are considered to qualify as PBFs under EBRD ESR6 Criterion 2 (c), as they are globally listed as Vulnerable and were recorded within the Project site;
- Both the Project area and the wider EAAAs are predominantly NH (desert).

To meet lender standards, the Project would need to demonstrate No Net Loss (NNL) for NH and, in accordance with EBRD ESR6, NNL and preferably Net Gain (NG) for PBFs.

Following the IFC PS6 recommendations for high-risk projects, the Project should develop a Biodiversity Action Plan (BAP) describing the strategy to achieve NNL for NH, PBFs and other relevant biodiversity, such as migratory soaring birds.

1 Introduction

1.1 Purpose and context

The Regional Centre for Renewable Energy and Energy Efficiency (RCREEE, the Client) has commissioned The Biodiversity Consultancy (TBC), to prepare a Critical Habitat Assessment (CHA) for the Shadwan 900 MW Wind Farm (the Project), located in the Ras Gharib region within the Red Sea Governorate, Egypt. The project is being developed by Scatec ASA who established a Special Purpose Vehicle (SPV), "Shadwan Wind Power SAE", that is wholly owned by Scatec ASA and that will be responsible for the development and implementation of the Project.

This CHA has been developed in alignment with the International Finance Corporation Performance Standard 6 (IFC PS6), European Bank for Reconstruction and Development Environmental and Social Requirement 6 (EBRD ESR6) and European Investment Bank Environmental and Social Standard 4 (EIB ESS4) criteria and thresholds¹.

The aim of this CHA is to identify potential Critical Habitat (CH)-qualifying species and ecosystems, based on IFC PS6, EBRD ESR6 and EIB ESS4 criteria and thresholds, which will require special attention and specific mitigation planning, and to determine whether the Project is in an area of Natural or Modified Habitat. EBRD ESR6 also defines Priority Biodiversity Features (PBFs), which have also been included in this CHA.

1.2 Description of the project

The Project site is located in the Red Sea Governorate, within the Ras Gharib District, administratively under the Ras Gharib City Council (Figure 1). The closest community settlement to the Project site is Ras Gharib city that is located around 22 km to the northeast.

The Project site has an area of 90 km² and includes the following components:

- Wind turbines: The Project will be composed by 83 turbines (11 MW), each with a rotor diameter of 210 m and tip height of 220 m;
- Medium Voltage (MV) Cables: The wind turbines will be connected through underground transmission cables medium voltage cables (33kV or 35kV) to an onsite substation;
- Communications Network: The Project will have a Supervisory Control and Data Acquisition (SCADA) system for the remote operation of the facilities. A communication network will be installed in the same trenches as the MV cables which will consist of

¹ Where criteria and/or thresholds differ, the most stringent and/or precautionary have been applied (see Appendix 1 for a comparison table which includes all criteria).

fiber optic cables connecting the turbines together to the SCADA system at the substation;

- Substation: This infrastructure collects and converts the output from the turbines to a higher voltage;
- Building Infrastructure: Onsite building infrastructure could include an administrative building (offices) used for normal daily operational related work, control room, workshop and a warehouse for storage of equipment and machinery;
- Road network: An internal road network will be required within the Project site for installation of the turbines during the construction process and for ease of access to the turbines for maintenance purposes during operation;
- Other Temporary Components: Temporary components include temporary offices, laydown areas, batching plant, borrow pits, generators
- Overhead Transmission Line (OHTL): A 220 or 500 kV s line that will connect the Project to the national grid. At this stage there are no details on the OHTL specifications (route, height, number of electrical towers, etc.) and therefore this infrastructure is outside the scope of this CHA.



Figure 1. Location of the Project

1.3 Ecological context

The Project is located in the Red Sea Coastal Desert Ecoregion (Dinerstein *et al.* 2017) that extends along the Red Sea coast of Egypt and Sudan, which is characterized by its arid climate. This region represents a transition zone between the hyper-arid Sahara Desert and the marine environment of the Red Sea, consisting of a desert area of sand and gravel plains, bisected by several shallow wadis. Land cover consists primarily of bare ground with very scattered low-growing vegetation, supporting a low diversity and abundance of terrestrial fauna (Zahran & Willis 2008).

The site's topography is entirely flat, with no significant hills or plateaus, dissected by several wadis and drainage channels that flow eastward (Safe Soar 2025). There is a large number of quarries operating in the region, which are scattered throughout the area.

The Project overlaps the Red Sea/Rift Valley flyway for migratory soaring birds which connects breeding grounds in Europe with wintering areas in Africa (BirdLife International 2015). This flyway is used by over 1.5 million individuals from 37 species of migratory soaring birds, as well as a suite of migratory passerines and other bird groups (Porter 2005; BirdLife International 2015; Jobson *et al.* 2021).

1.4 IFC PS6, EBRD ESR6 and EIB ESS4

The objectives of IFC PS6, EBRD ESR6 and EIB ESS4 are to protect and conserve biodiversity, adopt the mitigation hierarchy, maintain benefits from ecosystem services, and promote the sustainable management of living natural resources through the adoption of practices that integrate conservation needs and development priorities.

1.4.1 Critical Habitat, Natural Habitat and Priority Biodiversity Features

IFC PS6 and EIB ESS4 require projects to classify the area within which they operate into the following categories: modified habitat, natural habitat (NH) and CH based on the extent of human modification of the ecosystem and the presence of high biodiversity values (Table 1). Although EIB ESS4 also allows areas to be assigned to the category "semi-natural habitat", this category is not recognised by IFC PS6.

Table 1. Summary of the PS6 scheme for classifying habitat.

		Human modification of the ecosystem	
		Not significant	Significant
High biodiversity values	Present	Critical Habitat	Critical Habitat
	Absent	Natural Habitat	Modified Habitat

Note: No universal thresholds exist for identifying natural habitat and modified habitat

As a rule of thumb, a project should favour developments in areas of modified habitat over NH, and NH over CH. It must demonstrate the full application of the mitigation hierarchy framework to manage biodiversity impacts (avoid, minimise, restore, and when needed, offset) (CSBI & TBC 2015) in consultation with relevant stakeholders, and should achieve a No Net Loss (NNL) of biodiversity in areas of NH and a Net Gain (NG) in CH.

The relevant lender standard/requirement guidance notes (EIB 2018, 2022; IFC 2019; EBRD 2025) provide further guidance through well-defined criteria and thresholds on how to identify CH, as well as guidance on identifying natural and modified habitat (IFC 2019), which are summarised in Appendix 1. Note that, as Egypt is not an European Union (EU) member state and is not a signatory nation of the Bern Convention, some EBRD ESR6 and EIB ESS4 criteria for CH do not apply to this project, namely those relating to the EU Habitats Directive, the EU Birds Directive and the Bern Convention.

Criteria to consider when assessing the presence of CH are:

1. **Globally and/or regionally threatened species** (IFC PS6 Criterion 1, EBRD ESR6 Criterion 2 and EIB ESS4 Criterion 2)
2. **Endemic and restricted range species** (IFC PS6 Criterion 2, EBRD ESR6 Criterion 2 and EIB ESS4 Criterion 3)
3. **Migratory and congregatory species** (IFC PS6 Criterion 3, EBRD ESR6 Criterion 2 and EIB ESS4 Criterion 4)
4. **Highly Threatened and/or Unique Ecosystems** (IFC PS6 Criterion 4, EBRD ESR6 Criterion 1 and EIB ESS4 Criterion 1)
5. **Key evolutionary processes** (IFC PS6 Criterion 5 and EIB ESS4 Criterion 6)
6. **Biodiversity of socio-economic value** (EIB ESS4 Criterion 5)

The determination of CH for the first four criteria in the above list (corresponding to IFC PS6 Criteria 1-4, EBRD ESR6 Criteria 1 and 2, and EIB ESS4 Criteria 1-4) is based on quantitative thresholds, whereas the last two criteria above (IFC PS6 Criterion 5 and EIB ESS4 Criterion 5 and 6) are determined through a qualitative expert-based judgement (see Appendix 1). The identification of CH should be done at a landscape-level to consider the dynamics of the ecosystem beyond the project footprint.

IFC PS6, EBRD ESR6 and EIB ESS4 also make provision for Legally Protected Areas (LPAs) and Internationally Recognised Areas (IRAs), which should be duly identified and mapped (see IFC PS6 paragraph 20). IFC PS6 requires projects in LPAs and IRAs to be developed in line with any government-recognized management plans, be legally permitted, and implement additional programs to promote and enhance the conservation aims and effective management of those areas. Similarly, EBRD ESR6 requires that the Project will not compromise the integrity, conservation objectives and/or biodiversity importance of Legally Protected and Internationally Recognised Areas. EIB ESS4 requires the Project to be able to demonstrate that the proposed development is legally permitted and that the design of the project is consistent with a recognised management plan for the protected or designated conservation area. In the absence

of a recognised plan, the project should be compatible with the achievement of the relevant conservation objectives used to designate the area in question’.

IFC PS6 defines NH as “*areas composed of viable assemblages of plant and/or animal species of largely native origin, and/or where human activity has not essentially modified an area’s primary ecological functions and species composition*”. It also notes that “Project sites will often be located among a mosaic of habitats with varying levels of anthropogenic and/or natural disturbance. Clients are responsible for delineating the project site as best as possible in terms of modified and NH. This determination is made based on the level of human-induced disturbance (for example, presence of invasive species, level of pollution, extent of habitat fragmentation, viability of existing naturally occurring species assemblages, resemblance of existing ecosystem functionality and structure to historical conditions, degree of other types of habitat degradation) and the biodiversity values of the site (for example, threatened species, ecosystems, and ecological processes necessary for maintaining nearby CH). The level of anthropogenic impact should be determined with respect to the greater landscape/seascape in which the project is located.”

IFC PS6, EBRD ESR6 and EIB ESS4 stipulate that critical, natural and modified habitats should be mapped within an Ecologically Appropriate Area of Analysis (EAAA) (IFC PS6 GN26). The EAAA is identified at a landscape level, considering large-scale ecological processes where appropriate, which are often larger than the project impact area to ensure all risks are taken into consideration. The EAAA is designed to ensure that the biodiversity significance of the project landscape is appropriately evaluated; it is not a management unit and the choice of EAAA does not place any management obligations on the project.

In addition to CH values, EBRD ESR6 also considers a suite of PBFs which are of lower concern, but still important for a project to consider. PBFs include: threatened ecosystems, threatened, range-restricted, migratory and congregatory species (see Appendix 1 for details) (EBRD 2025).

1.4.2 Implications of findings

Projects located within CH need to pay special attention to the management of biodiversity impacts, especially on the biodiversity values that trigger CH. Where impacts do occur, lender standards require projects to fully execute the mitigation hierarchy. In CH, this means that overall NG of CH-qualifying biodiversity is required. A high threshold of proof will be required to demonstrate that it is feasible to deliver these net gains.

CH determination is an assessment of the biodiversity importance of an area, based on the biodiversity values and not the potential impacts associated with a project. The presence of CH does not necessarily imply an impact from the project. Table 2 shows the requirements of IFC PS6 paragraphs 17 and 18, with respect to CH². EBRD and EIB have similar requirements. The projects will also need to meet the IFC PS6 expectations for the management of impacts on

² IFC is generally the most stringent of the lenders in regard to critical habitat.

modified and NH. Table 3 shows the requirements of IFC PS6 paragraph 15 with respect to these.

Table 2. IFC PS6 paragraphs 17 & 18 on critical habitat.

PS6 reference	PS6 text
PS6 paragraph 17	In areas of critical habitat, the client will not implement any project activities unless all of the following are demonstrated: • No other viable alternatives in the region exist for development of the project on modified or natural habitats that are not critical; • The project does not lead to measurable adverse impacts on those biodiversity values for which the critical habitat was designated, and on the ecological processes supporting those biodiversity values; • The project does not lead to a net reduction in the global and/or national/regional population of any Critically Endangered or Endangered species over a reasonable period of time; • A robust, appropriately designed, and long-term biodiversity monitoring and evaluation program is integrated into the client's management program'.
PS6 paragraph 18	In such cases where a client is able to meet the requirements defined in paragraph 17, the project's mitigation strategy will be described in a Biodiversity Action Plan (BAP) and will be designed to achieve net gains of those biodiversity values for which the critical habitat was designated'.

Table 3. IFC PS6 paragraphs related to requirements for projects in natural habitat and modified habitat that holds significant biodiversity value.

PS6 reference	PS6 text
PS6 paragraph 12	This Performance Standard applies to those areas of modified habitat that include significant biodiversity value, as determined by the risks and impacts identification process required in Performance Standard 1. The client should minimize impacts on such biodiversity and implement mitigation measures as appropriate.'
PS6 paragraph 15	In areas of natural habitat, mitigation measures will be designed to achieve No Net Loss of biodiversity where feasible.'
PS6 footnote 9	'No Net Loss is defined as the point at which project-related impacts on biodiversity are balanced by measures taken to avoid and minimize the project's impacts, to undertake on-site restoration and finally to offset significant residual impacts, if any, on an appropriate geographic scale (e.g. local, landscape-level, national, regional).

It should be noted that, according to IFC PS6 and EBRD ESR6, areas not acceptable for financing (with the possible exception of projects specifically designed to contribute to the conservation of the area) include UNESCO World Heritage Sites and Alliance for Zero Extinction (AZE) Sites

(IFC 2019; EBRD 2025). The EIB will also not invest in projects affecting certain protected areas, specifically UNESCO World Heritage Sites (EIB 2022).

2 Determination of critical habitat

2.1 Review of available information

TBC consulted the Integrated Biodiversity Assessment Tool (IBAT)³, a source of globally authoritative biodiversity datasets including the IUCN Red List of Threatened Species, the World Database on Protected Areas, and the World Database of Key Biodiversity Areas (including Important Bird and Biodiversity Areas). IBAT was used to identify the presence of threatened, restricted-range and migratory species, protected areas, Key Biodiversity Areas (including Important Bird and Biodiversity Areas), World Heritage Sites and Alliance for Zero Extinction sites. European Space Agency (ESA) land-cover data was used to classify natural and modified habitats within the Ecologically Appropriate Areas of Analysis.

In addition to IBAT, several internationally and nationally relevant datasets and assessments were consulted, including:

- The IUCN Red List of Threatened Species ([IUCN Red List of Threatened Species](#))
- IUCN Red List of Ecosystems ([IUCN Ecosystems](#))
- The Global Biodiversity Information Facility (GBIF) (<https://www.gbif.org/>)
- eBird (<http://www.ebird.org>)
- BirdLife data zone (<http://datazone.birdlife.org/home>)
- Movebank ([Movebank](#))
- POWO – Plants of the world online, Royal Botanic Gardens, Kew (<https://powo.science.kew.org>)
- WFO – The World Flora Online (<http://wfoplantlist.org>).
- Mammals of Egypt: Atlas, red data listing and conservation (Basuony *et al.* 2010)
- Butterflies of Egypt: Atlas, red data listing and conservation (Gilbert & Zalat 2007)
- The conservation status and distribution of the breeding birds of prey of North Africa (Garrido *et al.* 2021)

The following documents were developed for the Project and have also been consulted in the preparation of this assessment:

³ [Integrated Biodiversity Assessment Tool](#)

- Draft Environmental and Social Impact Assessment (ESIA) Report (EcoConsult & Safe Soar 2025)
- Biodiversity Assessment Study (Safe Soar 2025)
- Bird Migration Study Spring Season 2025 (Camina 2025a)
- Bird Migration Study Autumn Season 2025 (Camina 2025b)
- Updating Survey for Egyptian Spiny tailed Lizard *Uromastix aegyptia* (Safe Soar 2024).
- Biodiversity risk assessment for the installation of wind measuring masts at the GigaWind 900 MW wind power plant, Egypt (TBC 2025)

2.2 Ecologically Appropriate Area of Analysis (EAAA)

In line with IFC PS6, EBRD ESR6 and EIB ESS4 (EIB 2018, 2022; IFC 2019; EBRD 2025), a CHA should be carried out for an Ecologically Appropriate Area of Analysis (EAAA), defined considering the distribution of species or ecosystems (within and sometimes extending beyond the project's area of influence) and the ecological patterns, processes, features, and functions that are necessary for maintaining them. This means EAAAs are usually at a scale larger than a project site or impact area. Such a precautionary approach ensures that the EAAA considers the area in which most potential risks from a Project could occur. Initially, for this CHA, a single EAAA was designated for flora and resident fauna. A screening of the occurring species was then conducted, identifying which species could potentially trigger CH. For those species, bespoke EAAAs were then selected.

For a wind generation project like the current one that is located within the Red Sea / Rift Valley flyway, the main risk for biodiversity is related with the collision of migratory birds with the wind energy facilities. Therefore, the inclusion of the airspace associated with the Project in the EAAA must be evaluated. According to the EBRD guidance (EBRD 2026), the Project airspace must be included in the delineation of an EAAA if it is anchored with a relevant ecological use of the terrestrial habitat with which it is associated (EBRD 2025, 2026), as depicted by any of the following situations: (i) an airspace above important terrestrial areas where the species regularly occur as part of their utilization of the area; or (ii) an airspace linking two or more nearby sites in the same landscape where there is frequent (especially low altitude) movement of birds.

For this Project, relevant ecological uses of the terrestrial habitat by migratory birds would include using the site as a stopover for roosting or resting or low-altitude movements associated with the proximity to the [Gebel el Zeit](#) Key Biodiversity Area (KBA). This KBA is also an Important Bird Area (IBA), which was established because it is the narrowest point in the southern part of the Gulf of Suez, where thousands of birds cross to and from Sinai. During the bird surveys conducted for the Project (Camina 2025c, 2025d) there was no evidence of roosting or resting sites or that the Project area was regularly used as a stopover site. However, EBRD (2026) considers that where topographical or other physical attributes of the ground or sea area contribute to high concentrations of low-flying birds the airspace may be included in the delineation of an EAAA. This includes areas near sea crossings, where the distance between shorelines is shortest and migratory soaring birds concentrate.

The Project' location within the Gulf of Suez migratory corridor, close to the Gebel el Zeit crossing point, reinforces the need to consider whether the area could trigger CH for some migratory soaring bird species (or even other migratory birds). Although defining a biologically meaningful EAAA for migratory soaring birds within a broad flyway is challenging, the Project area is ecologically linked to the Gebel el Zeit IBA/KBA. This is because a substantial proportion of the birds that cross the IBA/KBA, or stop there to rest, is likely to pass through the Project area at relatively low flight heights, due to the geographical location and topographical characteristics of the area. In Autumn, birds arriving from Sinai will use thermal currents within or near the Project area to gain altitude after crossing the Gulf of Suez (or stop to rest), while in Spring they may similarly gain altitude before attempting to cross. The airspace up to 240 m was included in the EAAA to include the use of the area by low flying birds (that will profit from thermals) and birds that stop to rest (Figure 2).

Regarding resident species, as a first step, an area of assessment was initially established as the Project concession area plus a buffer distance of 10 km around the wind farm area. Within this buffer, the dominant habitats within the Project area were used to refine the EAAA. Escarpment areas above 250 m asl were excluded, because (i) they represent very different habitat types to the sand plain desert habitat within which the Project occurs and (ii) Project impacts (direct or indirect) on these systems are unlikely. The buffer distance applied reflects a conservative distance beyond the Project boundary that a highly mobile resident species (e.g. a lark or a Dorcas Gazelle) might occur and still reasonably be expected to interact with Project infrastructure (Reitz & Benellem 2023; Kemp *et al.* 2024). For some species (e.g. terrestrial flora and less mobile species like reptiles) a 10 km buffer is likely to be highly conservative as potential impacts to species are unlikely to occur more than a few hundreds of meters beyond the Project boundary. Following this exercise, bespoke EAAAs, based on landscape features, habitat availability, and species potential home ranges were defined for the species that were considered potential CH triggers (Table 4, see Section 2.3 - CH determination).

Table 4 Species/groups of species with bespoke EAAAs

Biodiversity group	Common name	Scientific name
Insects (Lepidoptera)	Painted Lady	<i>Vanessa cardui</i>
Insects (Odonata)	Vagrant Emperor	<i>Anax ephippiger</i>
Reptiles	Egyptian Spiny-tailed Lizard	<i>Uromastyx aegyptia</i>
Mammals	Nubian Ibex	<i>Capra nubiana</i>
Mammals	Dorcas Gazelle	<i>Gazella dorcas</i>
Mammals	Greater Mouse-tailed Bat	<i>Rhinopoma microphyllum</i>
Migratory Soaring Birds		

For all species, except the Greater Mouse-tailed Bat (*Rhinopoma microphyllum*), the area of assessment was retained as the original EAAA (Figure 3). This approach is justified because, according to available information (Soorae 2018; Reitz & Benellem 2023; Wikelski *et al.* 2026), typical daily movements of these species, not related with migration, fall within a 10 km radius (see above).

For the Greater Mouse-tailed Bat, a specific and wider EAAA was defined based on the known maximum foraging movement distance of 90 km (Wilson & Mittermeier 2026). The EAAA was delineated by establishing a buffer of 90 km radius around the project perimeter, excluding marine areas but retaining mountainous area as these may also provide suitable habitat for the species (Figure 3).

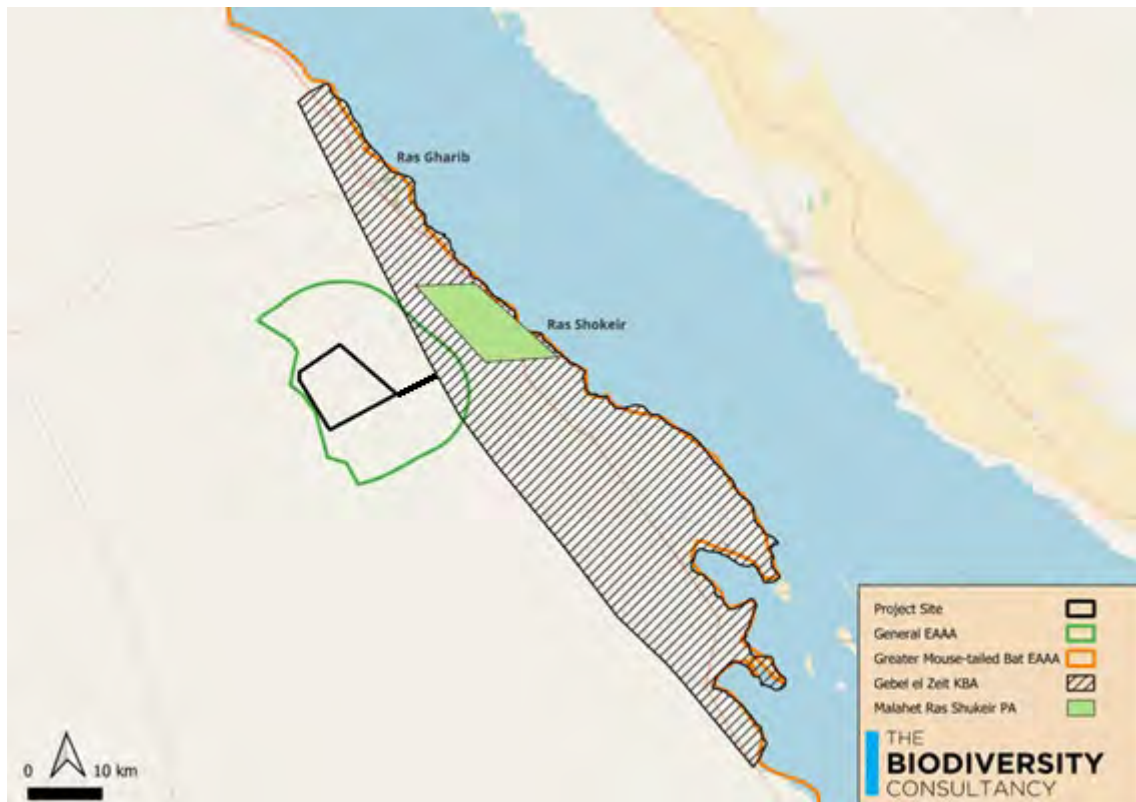


Figure 2: The Project boundary constitutes the Ecological Appropriate Area of Analysis (EAAA) for CH-determination for migratory soaring birds. The airspace below 240 m above ground is included in the EAAA as the area is ecologically linked to the Gebel el Zeit IBA/KBA.

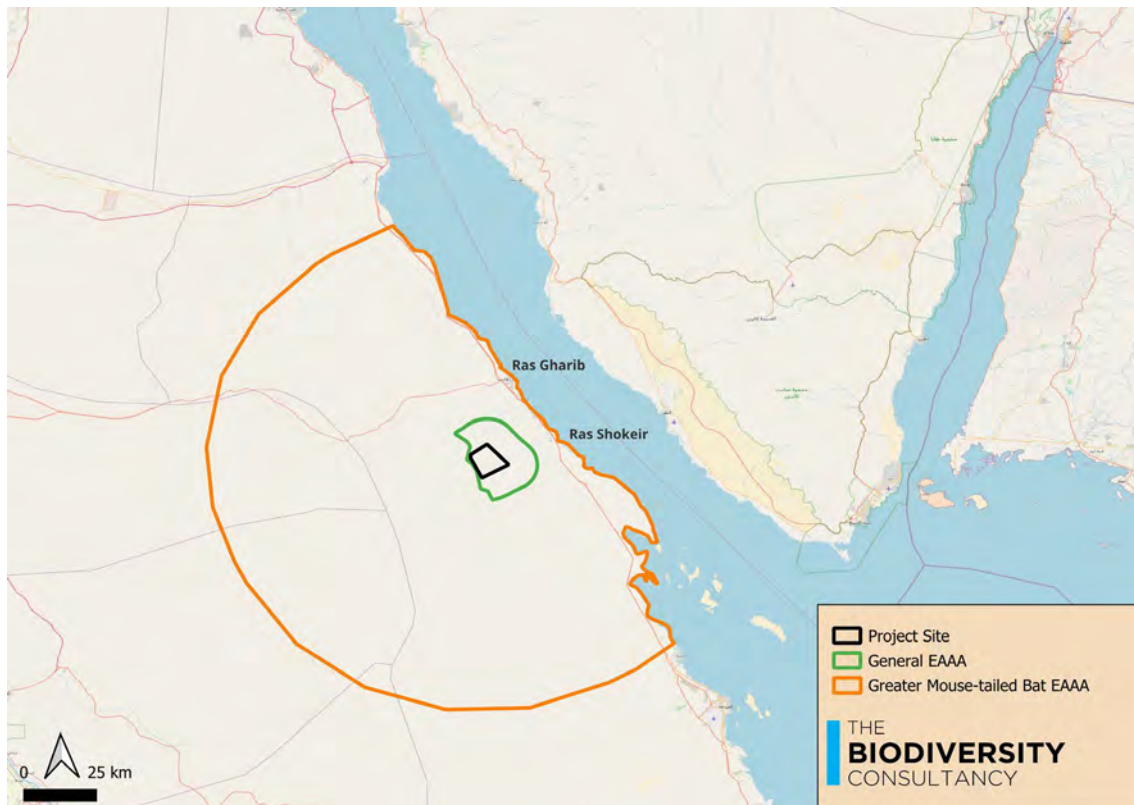


Figure 3. Ecological Appropriate Areas of Analysis considered in the Critical Habitat Assessment. The Project boundary constitutes the Area of Analysis for CH-determination for migratory soaring birds.

2.3 CH Determination

To support the identification of CH-qualifying features, TBC conducted an IFC PS6/EBRD ESR6/EIB ESS4 aligned biodiversity screening, to identify a shortlist of species for more detailed assessment. These included:

- All globally or nationally Critically Endangered (CR), Endangered (EN) and Vulnerable (VU) species with overlap between the EAAAs and their global ranges and potential presence in the EAAAs
- All restricted-range species
- Migratory and congregatory species, either i) with greater than 1% overlap between the EAAAs and their respective global ranges, or ii) recorded in the EAAAs in numbers that possibly exceed 1% of the global population
- Species triggering KBA and/or IBA criteria in the KBAs/IRAs overlapping, or in proximity to, the EAAAs.

The shortlist of species was then assessed against the applicable CH criteria and thresholds (Appendix 1) and informed by field survey data (Safe Soar 2024, 2025; Camina 2025b, 2025a), secondary data and expert input on their status and distribution within the EAAAs. Field surveys included migratory soaring bird monitoring throughout the Spring and Autumn seasons in 2025, (daily observations from vantage points), 22-day survey of Egyptian Spiny-tailed Lizard, flora terrestrial fauna surveys, also conducted in 2025. Where population data was not available, the overlap between the species range and the EAAA was used as a proxy for the population likely to be present.

Five categories of certainty were used based on the evidence that a species qualifies as triggering CH:

- **Certain** – if data demonstrate exceedance (e.g. numbers based on field surveys);
- **Likely** – if the range overlap, or other evidence, suggests the EAAA is likely to exceed the threshold, and the species' presence has been confirmed in the Project area;
- **Possible** – if the range overlap is close to the threshold, or there is the potential for the EAAA to have a higher proportion of the population than average, and the species' presence has been confirmed in the Project area;
- **Non-conclusive** - If the outcome of the assessment would have otherwise been likely/possible CH, but the species presence has not been confirmed in the Project area; and,
- **Does not qualify** – if available evidence is that the threshold is not exceeded.

As mentioned in the previous section, the next step was to refine the EAAAs for species that could potentially trigger CH (see Section 2.2). These species were then reassessed against the CH criteria in relation to the refined EAAA.

For soaring bird species, the highest number of individuals recorded in any one season flying through the Project area (AoI) at a height with potential to interact with the turbines (i.e. <240 m) was compared with the global population of each species (IUCN Red List). For some species, the IUCN data only provides an estimated number of mature individuals. In that case, we converted IUCN's reported minimum number of mature individuals into an approximate total number of individuals, applying a demographic correction factor to account for juveniles and immatures. Following common practice for long-lived raptors, we assumed that mature individuals represent approximately 2/3 of the total population. Total population size was therefore estimated by dividing the number of mature individuals by 0.67.

2.4 Constraints and limitations

Potential constraints to the desktop-based analysis for this CHA include the usage of some global biodiversity datasets, which may not yet include species that could be present, but which have not yet been evaluated on the IUCN Red List.

Those species with national Red List assessments were possible to assess against Criterion 1.c (IFC 2019) but this criterion does not provide quantitative thresholds for assessment, requiring the use of expert judgement.

Additionally, the application of the quantitative CH thresholds should be considered precautionarily, due to lack of population data for some species. In some cases, lack of precise information on species distribution makes it challenging to determine whether a species is likely to meet the IFC PS6 GN6 thresholds for criteria 1-3 and equivalent criteria for EBRD ESR6 and EIB ESS4.

The presence and number of individuals of migratory soaring species was only surveyed in one Autumn and one Spring season, which may not be fully representative of the average number of individuals that cross the area each season or percentage of individuals that fly at collision risk height.

3 Results of the CHA

3.1 Critical habitat-qualifying species

A total of 377 species were identified for CH screening based on their potential presence in the relevant EAAAs (or bird AoI) as indicated in IUCN Red List distribution maps, other global datasets such as GBIF, eBird or BirdLife data zone, or from field survey data.

Refer to Appendix 2 for a subset of screened species that met one or more of the following criteria: an IUCN or national threat status of CR, EN or VU or migratory status, including migratory birds potentially crossing the Project airspace. No restricted-range species were identified within the EAAA.

Migratory soaring birds were assessed in more detail against CH criteria, as well as six non-bird species: the butterfly Painted Lady (*Vanessa cardui*), the dragonfly Vagrant Emperor (*Anax ephippiger*), the mammals Nubian Ibex (*Capra nubiana*), Dorcas Gazelle (*Gazella dorcas*) and Greater Mouse-tailed Bat (*Rhinopoma microphyllum*), and the reptile Egyptian Spiny-tailed Lizard (*Uromastix aegyptia*).

Two bird species, the Steppe Eagle (*Aquila nipalensis*) and the White Stork (*Ciconia ciconia*) qualify the EAAA as critical habitat under IFC PS6 Criterion 3, EBRD ESR6 Criterion 4 and EIB ESS4 Criterion 4/IFC PR6, EBRD ESR6 and EIB ESS4 CH criteria. The details of the assessment are provided in Tables 5 and 6.

Table 5. Bird species assessed in detail against critical habitat criteria. For a longer list of species screened, refer to Appendix 2. Critical habitat-triggering species are in bold.

Species	IUCN Status*	National Status**	Presence in EAAA	Criteria considered	Minimum global population estimate (IUCN 2026)***	Commentary	Conclusion
Steppe Eagle (<i>Aquila nipalensis</i>)	EN	-	Confirmed	PS6: 1a, 3a ESR6: 2b, 4a ESS4: 2a, 4a	78,042	Surveys within the Project area recorded a maximum number of 1,465 individuals flying within the EAAA. This constitutes 1.9% of the global population, therefore exceeding the threshold for qualification under Criteria PS6 3a/ESR6 4a/ESS4 2a.	The EAAA qualifies as Critical Habitat for this species IFC PS6 Criterion 3, EBRD ESR6 Criterion 4 and EIB ESS4 Criterion 4
White Stork (<i>Ciconia ciconia</i>)	LC	-	Confirmed	PS6: 3a ESR: 4a ESS4: 2a	785,075	The number of White Storks that were recorded flying within the EAAA (14,357) constitutes 1.8% of the global population. This exceeds the threshold for qualification under Criteria PS6 3a/ESR6 4a/ESS4 2a.	The EAAA qualifies as Critical Habitat for this species IFC PS6 Criterion 3, EBRD ESR6 Criterion 4 and EIB ESS4 Criterion 4

Species	IUCN Status*	National Status**	Presence in EAAA	Criteria considered	Minimum global population estimate (IUCN 2026)***	Commentary	Conclusion
Black Kite (<i>Milvus migrans</i>)	LC	-	Confirmed	PS6: 3a PR6: 4a ESS4: 2a	5,970,150	Surveys within the Project area recorded a maximum number of individuals within the EAAA of 2,317 individuals. The available count data on this species fall below the Critical Habitat-qualifying thresholds.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF.
Black Stork (<i>Ciconia nigra</i>)	LC	-	Confirmed	PS6: 3a ESR6: 4a ESS4: 2a	32,110	233 Black Storks were counted on the Aol. However, this represents 0.7% of the global population, therefore below the 1% threshold for PS6 criterion 3a and ESR5 4a..	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Booted Eagle (<i>Hieraaetus pennatus</i>)	LC	-	Confirmed	PS6: 3a ESR6: 4a ESS4: 2a	223,881	Surveys within the Project area recorded 111 individuals within the EAAA, which constitute a negligible percentage of the global population.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Common Crane (<i>Grus grus</i>)	LC	-	Confirmed	PS6: 3a ESR6: 4a ESS4: 2a	718,160	Common Crane numbers were very low during baseline surveys. The seasonal maximum recorded within the EAAA was seven individuals, which are less than 0.01% of the global population.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Common Kestrel (<i>Falco tinnunculus</i>)	LC	-	Not confirmed	PS6: 3a ESR6: 4a ESS4: 2a	6,020,000	The Common Kestrel is frequently detected in bird surveys in the region. However, no individuals were detected in the Aol during the baseline surveys. It is considered extremely unlikely that >1% of the species' minimum global population migrates through the EAAA.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF

Species	IUCN Status*	National Status**	Presence in EAAA	Criteria considered	Minimum global population estimate (IUCN 2026)***	Commentary	Conclusion
Crested Honey Buzzard (<i>Pernis ptilorhynchus</i>)	LC	-	Not confirmed	PS6: 3a ESR6: 4a ESS4: 2a	100,000	Only a very small portion of this species population migrates through the Rift Valley/Red Sea Flyway and counts along observation points along the Gulf of Suez are always low. In this case, the species was not recorded during the surveys.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Eastern Imperial Eagle (<i>Aquila heliaca</i>)	VU	-	Confirmed	PS6: 1b, 3a ESR6: 2c, 4a ESS4: 2b, 4a	23,881	The percentage of the global population of the Eastern Imperial Eagle that was recorded within the Aol was only 0.025% of the global population (six individuals).	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Egyptian Vulture (<i>Neophron percnopterus</i>)	EN	-	Confirmed	PS6: 1a, 3a ESR6: 2c, 4a ESS4: 2a, 4a	18,600	Surveys within the Project area recorded a seasonal maximum number of individuals flying through the Aol of 45 individuals. This represents 0.2 % of the species' minimum global population. Therefore, the area does not qualify as CH for this species under Criteria PS6 3a/ESR6 2c, 4a/ESS4 2a, 4a.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Eleonora's Falcon (<i>Falco eleonora</i>)	LC	-	Confirmed	PS6: 3a ESR6: 4a ESS4: 2a	48,600	Eleonora's Falcon is scarce in the Project area. Only three individuals were observed. This constitutes a negligible percentage of the global population.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Eurasian Sparrowhawk (<i>Accipiter nisus</i>)	LC	-	Confirmed	PS6: 3a PR6: 4a ESS4: 2a	2,985,075	Eurasian Sparrowhawk is one the most abundant raptors in Eurasia. But this species numbers in the Gulf of Suez are not very expressive. Only 18 individuals were detected within the EAAA during the surveys. This corresponds to less than 0.001% of the global population.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF

Species	IUCN Status*	National Status**	Presence in EAAA	Criteria considered	Minimum global population estimate (IUCN 2026)***	Commentary	Conclusion
Eurasian (Steppe) Buzzard (<i>Buteo buteo vulpinus</i>)	LC	-	Confirmed	PS6: 3a ESR: 4a ESS4: 2a	2,985,075	Surveys in the Project area recorded 4,471 birds within the EAAA. This represents 0.15% of the global population, consequently not exceeding the threshold for qualification under Criteria PS6 3a/ESR6 4a/ESS4 2a.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Eurasian Hobby (<i>Falco subbuteo</i>)	LC	-	Not confirmed	PS6: 3a ESR6: 4a ESS4: 2a	1,260,000	The Hobby was not recorded in the Project area, although it is considered a regular, but scarce, migrant in region. It is considered very unlikely that >1% of the species' minimum global population migrates through the EAAA.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
European Honey-buzzard (<i>Pernis apivorus</i>)	LC	-	Confirmed	PS6: 3a ESR6: 4a ESS4: 2a	432,836	European Honey-buzzards are very numerous as a migrant in the region. However, they are mostly detected flying at very high altitudes. This means that the number of individuals that were recorded flying within the EAAA only constitute 0.19% of the global population, thus not reaching the threshold for qualification under Criteria PS6 3a/ESR6 4a/ESS4 2a.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Great White Pelican (<i>Pelecanus onocrotalus</i>)	LC	-	Confirmed	PS6: 3a ESR6: 4a ESS4: 2a	265,000	2,282 individuals have been recorded during the surveys flying below 240 m. This number constitutes 0.86% of the global population, therefore not exceeding the threshold for qualification under Criteria PS6 3a/ESR6 4a/ESS4 2a.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Greater Spotted Eagle (<i>Clanga clanga</i>)	VU	-	Confirmed	PS6: 1b, 3a ESR6: 2c, 4a ESS4: 2b, 4a	16,998	Although the Greater Spotted Eagle was recorded during the surveys (11 individuals), no individuals were detected within the EAAA airspace	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF

Species	IUCN Status*	National Status**	Presence in EAAA	Criteria considered	Minimum global population estimate (IUCN 2026)***	Commentary	Conclusion
Griffon Vulture (<i>Gyps fulvus</i>)	LC	-	Not confirmed	PS6: 3a ESR6: 4a ESS4: 2a	80,000	The Griffon Vulture is an uncommon bird in the region and was not detected in the EAAA	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Lanner Falcon (<i>Falco biarmicus</i>)	LC	-	Confirmed	PS6: 3a ESR6: 4a ESS4: 2a	100,001	Surveys within the Project area recorded only four individuals flying lower than 240 m. These counts represent less than 0.01% of the species' global population and it is considered unlikely that >1% of the species' minimum global population migrates through the EAAA.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Lesser Kestrel (<i>Falco naumanni</i>)	LC	-	Not confirmed	PS6: 3a ESR6: 4a ESS4: 2a	120,000	No Lesser Kestrels were detected during the surveys, although the species is considered a regular migrant in the region, with a high count of 45 individuals in the Gebel el Zeit IBA (https://ebird.org/checklist/S84991296). Despite being a trigger species for the Gebel el Zeit IBA, and notwithstanding that day-time surveys may be less accurate for this species, which also migrates at night (Camina <i>et al.</i> 2024) it is unlikely that >1% of the species' minimum global population migrates through the EAAA.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Lesser Spotted Eagle (<i>Clanga pomarina</i>)	LC	-	Confirmed	PS6: 3a PR6: 4a ESS4: 2a	59,701	Surveys within the Project area recorded a maximum seasonal count of 189 individuals within the EAAA. This constitutes 0.32% of the global population, therefore not exceeding the threshold for qualification under Criteria PS6 3a/ESR6 4a/ESS4 2a.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF

Species	IUCN Status*	National Status**	Presence in EAAA	Criteria considered	Minimum global population estimate (IUCN 2026)***	Commentary	Conclusion
Levant Sparrowhawk (<i>Accipiter brevipes</i>)	LC	-	Confirmed	PS6: 3a ESR6: 4a ESS4: 2a	14,925	Only seven Levant Sparrowhawks were recorded flying within the EAAA. This represents 0.05% of the global population.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Long-legged Buzzard (<i>Buteo rufinus</i>)	LC	-	Confirmed	PS6: 3a ESR6: 4a ESS4: 2a	149,254	Surveys within the Project area recorded a seasonal maximum of 60 individuals within the EAAA. This constitutes a small percentage of the global population (0.04%).	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Montagu's Harrier (<i>Circus pygargus</i>)	LC	-	Confirmed	PS6: 3a ESR6: 4a ESS4: 2a	447,761	Seven Montagu's Harriers were recorded within the EAAA during a whole season. This constitutes less than 0.01 of the global population.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Osprey (<i>Pandion haliaetus</i>)	LC	-	Confirmed	PS6: 3a ESR6: 4a ESS4: 2a	149,254	Surveys within the Project area recorded a maximum of eight Ospreys during one season. These counts represent less than 0.01% of the species' minimum global population and it is considered unlikely that > 1% of the species' minimum global population migrates through the EAAA.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Pallid Harrier (<i>Circus macrourus</i>)	NT	-	Confirmed	PS6: 3a ESR6: 4a ESS4: 2a	26,866	Surveys within the Project area recorded a maximum of three Pallid Harriers within the EAAA during one season. These counts represent 0.01% of the species' minimum global population and it is considered unlikely that > 1% of the species' minimum global population migrates through the EAAA	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF

Species	IUCN Status*	National Status**	Presence in EAAA	Criteria considered	Minimum global population estimate (IUCN 2026)***	Commentary	Conclusion
Peregrine Falcon (<i>Falco peregrinus</i>)	LC	-	Not confirmed	PS6: 3a ESR6: 4a ESS4: 2a	140,000	No Peregrine Falcons were recorded during the surveys. It is considered unlikely that >1% of the species' minimum global population, which is relatively high, migrates through the EAAA	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Red-footed Falcon (<i>Falco vespertinus</i>)	VU	-	Not confirmed	PS6: 1b, 3a ESR6: 2c,4a ESS4: 2b, 4a	402,500	The Red-footed Falcon is an uncommon migrant in the region. Despite the fact that it is usually detected during baseline or monitoring surveys (in low numbers) it was not detected in the EAAA.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Saker Falcon (<i>Falco cherrug</i>)	EN	-	Not confirmed	PS6: 1a, 3a ESR6: 2b, 4a ESS4: 2a, 4a	18,300	The species has not been recorded during spring and autumn surveys within the Project area. It is generally rare in the region, and it is not detected every year. It is unlikely that the species occurs in sufficient numbers to qualify the Migratory Bird EAAA as CH.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Short-toed Eagle (<i>Circus gallicus</i>)	LC	-	Confirmed	PS6: 3a ESR6: 4a ESS4: 2a	74,627	211 individuals have been recorded during the surveys flying below 240 m. This number constitutes 0.28% of the global population, therefore not exceeding the threshold for qualification under Criteria PS6 3a/ESR6 4a/ESS4 2a.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Sooty Falcon (<i>Falco concolor</i>)	VU	-	Confirmed	PS6: 1b, 3a ESR6: 2c,4a ESS4: 2b, 4a	4,179	Only nine Sooty Falcons were recorded flying within the EAAA. This represents 0.2% of the global population.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF

Species	IUCN Status*	National Status**	Presence in EAAA	Criteria considered	Minimum global population estimate (IUCN 2026)***	Commentary	Conclusion
Western Marsh Harrier (<i>Circus aeruginosus</i>)	LC	-	Confirmed	PS6: 3a ESR6: 4a ESS4: 2a	895,522	Surveys within the Project area recorded a maximum of 46 Western Marsh Harriers during one season. These counts represent less than 0.01% of the species' minimum global population and it is considered unlikely that > 1% of the species' minimum global population migrates through the EAAA	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF

Table 6. Non-bird species assessed in detail against critical habitat criteria. For a longer list of species screened, refer to Appendix 2.

Species	IUCN Status ¹	National Status ²	Presence in EAAA	Criteria considered	Minimum global population estimate	Commentary	Conclusion
Painted Lady	LC	-	Not confirmed	PS6: 3a ESR6: 4a ESS4: 4a	Unknown (van Swaay <i>et al.</i> 2014)	This is a migrant species from North Africa colonizing Europe and the Near East each year. Although it is listed in the Egyptian Red List of Butterflies (Gilbert & Zalut 2007), its national conservation status was not assessed because it is not considered a resident species in Egypt. As the EAAA represents less than 0.01% of the species' global range, it is unlikely to hold more than 1% of the global population and therefore does not trigger PS6 Criterion 3a, ESR6 Criterion 4, or EIB ESS4 Criterion 4a.	The EAAA does not qualify as Critical Habitat for this species.
Vagrant Emperor	LC	-	Not confirmed	PS6: 3a ESR6: 4a ESS4: 4a	Unknown (Subramanian 2016)	This species is a common Afrotropical migratory and congregatory taxon that expands northward with the seasonal monsoon fronts (Subramanian 2016). As the EAAA represents less than 0.01% of the species' global range, it is unlikely to hold more than 1% of the global population and therefore does not trigger PS6 Criterion 3a, ESR6 Criterion 4, or EIB ESS4 Criterion 4a.	The EAAA does not qualify as Critical Habitat for this species.

Species	IUCN Status ¹	National Status ²	Presence in EAAA	Criteria considered	Minimum global population estimate	Commentary	Conclusion
Egyptian Spiny-tailed Lizard	VU	-	Confirmed	PS6: 1b ESR6: 2c ESS4: 2b	Unknown (Wilms <i>et al.</i> 2012)	The Egyptian Spiny-tailed Lizard has a distribution extending across most of the Arabian Peninsula and northeast Egypt. Its population size is unknown, although its occurrence is very patchy and it appears to be uncommon and declining in Egypt (Wilms <i>et al.</i> 2012). The Egyptian Spiny-tailed Lizard has a range of 2,953,120 km ² , of which 0.02% overlaps with the EAAA. This species occurs in open, flat, gravelly, stony and rocky areas, and it is infrequently seen in sandy areas (Wilms <i>et al.</i> 2012). The species is confirmed to occur within the Project area (Safe Soar 2024), where 111 active and inactive burrows and 89 individuals were recorded, indicating the presence of a healthy local population. However, given the EAAA represents such a small proportion of the species' range, it is unlikely that it supports a sufficient number of individuals whose loss, would cause the species to be upgraded to EN, and thus the species does not qualify under ESR6 Criterion 2b, EIB ESS4 Criterion 2b or PS6 Criterion 1b.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF.
Nubian Ibex	VU	EN	Confirmed	PS6: 1b ESR6: 2b,d ESS4: 2b,d	4,500 (Ross <i>et al.</i> 2020)	This species typically occurs in rocky desert mountains with steep slopes and hills. It is also found in associated plateaus, canyons and wadis (Ross <i>et al.</i> 2020). The global population is estimated at approximately 4,500 individuals. In Egypt, two main populations are recognized, the Eastern Desert Population, and the South Sinai population, with a combined estimated size ranging from 600 to 1250 individuals. The species is classified as Endangered in the National Red List (Basuony <i>et al.</i> 2010) due to reductions in its area of occupancy and habitat fragmentation. At least one individual was detected within the Project area (Safe Soar 2025), which was considered to be a vagrant, as it does not represent typical mountain habitat and does not contain relevant grazing areas. Additionally, the EAAA represents 0.15% of the species; global range (344,026 km ²) making it unlikely that it could support a number of individuals whose loss would cause the species status to be upgraded to EN. Therefore, the species does not qualify under PS6 Criterion 1b, ESR6 Criteria 2b,d or EIB ESS4 Criteria 2b,d. The species is not considered a PBF as the observed individuals are likely vagrants and not regularly present at the site (SafeSoar <i>pers. comm.</i>)	The EAAA does not qualify as Critical Habitat for this species. Not considered a PBF

Species	IUCN Status ¹	National Status ²	Presence in EAAA	Criteria considered	Minimum global population estimate	Commentary	Conclusion
Dorcas Gazelle	VU	VU	Confirmed	PS6: 1b ESR6: 2b ESS4: 2b	Unknown (IUCN SSC Antelope Specialist Group 2017)	There is uncertainty regarding the species' current global population size, as the most recent comprehensive estimate is over 20 years old. More recent reports indicate declines across much of its range and the disappearance of the species from several areas of former occurrence (IUCN SSC Antelope Specialist Group 2017). In Egypt, the population is estimated at 1,000–2,000 individuals (IUCN SSC Antelope Specialist Group 2017) and is considered to be in decline (Basuony <i>et al.</i> 2010). One individual was recorded within the Project area (Safe Soar 2025). The EAAA represents only 0.01% of the species' global range (9,951,434 km²), making it unlikely to hold a sufficient number of individuals whose loss would result in the species being uplisted to Endangered. Therefore, the species does not qualify under PS6 Criterion 1b., ESR6 Criterion 2b or EIB ESS4 Criterion 2b.	The EAAA does not qualify as Critical Habitat for this species. Considered a PBF
Greater Mouse-tailed Bat	LC	VU	Not confirmed	PS6: 3a ESR6: 4a ESS4: 4a	Unknown (Monadjem <i>et al.</i> 2017)	The species is distributed from northern Africa through southwest Asia to Afghanistan, Pakistan and India having an estimated range of 7,186,267 km² (Monadjem <i>et al.</i> 2017). It is a migratory species, typical of arid areas. Roosts in crevices, small caves, mines, underground tunnels, wells, old monuments and buildings. Despite the species being considered uncommon and classified as Vulnerable at the national level (Basuony <i>et al.</i> 2010), colonies of several thousand individuals have been reported in Egypt (Monadjem <i>et al.</i> 2017). As the EAAA represents 0.01% of the species range it is unlikely that it holds more than 1% of the population and triggers PS6 Criterion 3a, ESR6 Criterion 4 or EIB ESS4 Criterion 4a.	The EAAA does not qualify as Critical Habitat for this species. Not considered a PBF
¹Red List (RL) status: CR = Critically Endangered; EN = Endangered; VU = Vulnerable; NT = Near Threatened; LC = Least Concern; DD = Data Deficient; NE = Not Evaluated (IUCN 2025) ² Butterflies: (Gilbert & Zalut 2007); Mammals (Basuony <i>et al.</i> 2010)							

3.2 Priority Biodiversity Features (PBFs)

The EAAAs overlap the range of 13 species which are globally Endangered or Vulnerable and so require consideration under Criterion 2b of EBRD ESR6. Of these:

- Six EN or VU bird species, Egyptian Vulture (*Neophron percnopterus*), Eastern Imperial Eagle (*Aquila heliaca*), Greater Spotted Eagle (*Clanga clanga*), Red-footed Falcon (*Falco vespertinus*), Sooty Falcon (*Falco concolor*), Turtle Dove (*Streptopelia turtur*) are considered PBFs.
- Two other species, Egyptian Spiny-tailed Lizard and Dorcas Gazelle, are considered to qualify as a PBF under EBRD ESR6 Criterion 2 (c), as they are globally listed as Vulnerable and were recorded (Safe Soar 2025) within the Project site. The presence of several Egyptian Spiny-tailed Lizard individuals and burrows indicates that the EAAA supports a local population of this species. Only one individual of the Dorcas Gazelle was recorded in the Project area, where no suitable grazing habitats for the species were identified (Safe Soar 2025). This record appears to be far from any other recent known population of the species, so it should be treated as a newly discovered population and handled with caution.
- Another globally Vulnerable species, the Nubian Ibex, was recorded in the Project site, but was not considered a PBF. The species is typical of mountain habitats, and individuals recorded in the area are therefore considered vagrants (Safe Soar 2025, SafeSoar *pers. comm.*).
- The Golden Eagle (globally Least Concern) is considered a PBF on the basis of stakeholder concern. Although the species is not globally threatened, it is very rare in Egypt and the wider region, and survey evidence suggests the presence of a breeding pair (EcoConsult & Safe Soar 2025) in the vicinity of the Project, in an area where the species had not previously been known to occur.

Habitats within the Project area are unlikely to support populations of four threatened species: Nubian Ibex (*Capra nubiana*), Broad-billed Sandpiper (*Calidris falcinellus*), Curlew Sandpiper (*Calidris ferruginea*) and Grey Plover (*Pluvialis squatarola*), and therefore these are not considered as PBFs.

In addition, some migratory species regularly occurring in the Project area of impact that are not CH-qualifying or globally Endangered or Vulnerable were be considered as PBFs under EBRD ESR6 Criterion 4a (Table 7). According to ESR6, PBF are subset of biodiversity, which are irreplaceable or vulnerable, but at a lower priority level than critical habitat. For the Project, these include migratory soaring birds such as the European Honey Buzzard (*Pernis apivorus*), Black Stork (*Ciconia nigra*), Great White Pelican (*Pelecanus onocrotalus*), Pallid Harrier (*Circus macrourus*), Black Kite (*Milvus migrans*), Eurasian Sparrowhawk (*Accipiter nisus*), Long-legged Buzzard (*Buteo rufinus*), Short-toed Eagle (*Circaetus gallicus*), Western Marsh Harrier (*Circus aeruginosus*), Montagu's Harrier (*Circus pygargus*), Lanner Falcon (*Falco biarmicus*), Eleonora's Falcon (*Falco eleonora*), Lesser Kestrel (*Falco naumanni*), Peregrine Falcon (*Falco peregrinus*), Eurasian Hobby (*Falco subbuteo*), Common Kestrel (*Falco tinnunculus*) Griffon Vulture (*Gyps*

fulvus), Booted Eagle (*Hieraaetus pennatus*), Osprey (*Pandion haliaetus*), and Crested Honey Buzzard (*Pernis ptilorhynchus*). The full list of species classifying as PBFs can be found in Table 7.

Egypt has a national Red Lists of threatened species for mammals and butterflies (Gilbert & Zalut 2007; Basuony *et al.* 2010). However, no species of these two groups qualified as PBFs under Criterion 2d of EBRD ESR6.

Table 7. PBF species for the Project.

Class	Scientific Name	Common Name	IUCN Red List Category*	National Red List Category**	EBRD ESR6 Criterion
AVES	<i>Accipiter nisus</i>	Eurasian Sparrowhawk	LC	-	4a
	<i>Clanga clanga</i>	Greater Spotted Eagle	VU	-	2b, 4a
	<i>Buteo rufinus</i>	Long-legged Buzzard	LC	-	4a
	<i>Circus aeruginosus</i>	Western Marsh-Harrier	LC	-	4a
	<i>Circus macrourus</i>	Pallid Harrier	NT	-	4a
	<i>Circus pygargus</i>	Montagu's Harrier	LC	-	4a
	<i>Clanga clanga</i>	Greater Spotted Eagle	VU	-	2b
	<i>Aquila chrysaetos</i>	Golden Eagle	LC	-	-
	<i>Aquila heliaca</i>	Eastern Imperial Eagle	VU	-	2b, 4a
	<i>Gyps fulvus</i>	Griffon Vulture	LC	-	4a
	<i>Neophron percnopterus</i>	Egyptian Vulture	EN	-	2b, 4a
	<i>Hieraaetus pennatus</i>	Booted Eagle	LC	-	4a
	<i>Milvus migrans</i>	Black Kite	LC	-	4a
	<i>Pernis apivorus</i>	European Honey Buzzard	LC	-	4a
	<i>Pernis ptilorhynchus</i>	Oriental Honey-buzzard	LC	-	4a
	<i>Pandion haliaetus</i>	Osprey	LC	-	4a
	<i>Ciconia nigra</i>	Black Stork	LC	-	4a
	<i>Pelecanus onocrotalus</i>	Great White Pelican	LC	-	4a
	<i>Streptopelia turtur</i>	European Turtle-dove	VU	-	2b
	<i>Falco biarmicus</i>	Lanner Falcon	LC	-	4a
	<i>Falco concolor</i>	Sooty Falcon	VU	-	2b
	<i>Falco eleonorae</i>	Eleonora's Falcon	LC	-	4a
	<i>Falco naumanni</i>	Lesser Kestrel	LC	-	4a
	<i>Falco peregrinus</i>	Peregrine Falcon	LC	-	4a
	<i>Falco subbuteo</i>	Eurasian Hobby	LC	-	4a
	<i>Falco tinnunculus</i>	Common Kestrel	LC	-	4a
	<i>Falco vespertinus</i>	Red-footed Falcon	VU	-	2b, 4a
	<i>Turdus philomelos</i>	Song Thrush	LC	-	4a
MAMMALIA	<i>Gazella dorcas</i>	Dorcas Gazelle	VU	VU	4a
REPTILIA	<i>Uromastix aegyptia</i>	Egyptian Spiny-tailed Lizard	VU	-	2b

3.3 Highly Threatened or Unique Ecosystems

A Red List Assessment of Ecosystems has not been produced for Egypt. Therefore, highly threatened and/or unique ecosystems were considered through a screening-level assessment, using ecosystem information and expert judgement. This assessment suggested that habitat present in the Project area does not likely satisfy the thresholds for highly threatened or unique ecosystems.

The west coast of the Gulf of Suez is within the Red Sea coastal desert ecoregion, which covers 58,899 km² and which has the status of Vulnerable (i.e. not highly threatened, which would imply a status of CR or EN: IFC 2019; EIB 2022) and no additional information on the status of ecosystems within the ecoregion is available. The habitats within the Project area, primarily sand and gravel plains and shallow wadis appear unlikely to qualify under IFC PS6 Criterion 4, EBRD ESR6 Criterion 1 and EIB ESS4 Criterion 4 based on a qualitative visual analysis using aerial imagery, due to low risk of significant reduction in their area or quality resulting from the Project, their large spatial extent, and the lack of evidence that they contain unique plant or animal assemblages (with the exception of migrating birds, the area hosts a low diversity of plants and animals (Safe Soar 2025).

3.4 Key Evolutionary Processes

Indicators for the potential presence of key evolutionary process include certain features of a landscape, including high spatial heterogeneity, environmental gradients, connectivity between habitats and sites of demonstrated importance for climate change adaptation. No quantitative thresholds exist for this criterion, so there is a reliance on expert opinion and qualitative value judgement. Review of existing information did not identify any structural attributes of the landscape within the EAAAs that are likely to be associated with key evolutionary processes, suggesting the Project area would not qualify as CH under IFC PS6 Criterion 5.

3.5 Biodiversity of socio-economic value (EIB criterion)

EIB ESS4 contains a CH criterion (Criterion 5) that is additional to IFC PS6 and EBRD ESR6 on biodiversity of socio-economic value, which states that *"areas of semi-natural and natural habitat used by indigenous peoples and local communities to obtain essential or priority benefits will be considered critical from an ecosystem service perspective."*

Review of existing information identified no biodiversity or ecosystems of significant social, economic or cultural importance to local communities and indigenous groups within the EAAA (EcoConsult & Safe Soar 2025). Therefore, no areas are likely to qualify as CH under Criterion 5 of EIB ESS4.

3.6 Natural and modified habitat

Both the Project area and the EAAAs are in NH (desert) under IFC PS6, EBRD ESR6 and EIB ESS4, with residual areas of Modified Habitat) (Figure 4), based on satellite-derived landcover layers (European Space Agency (ESA) WorldCover 2021) and aerial imagery (GoogleEarth, viewed January 2026). NH is represented by desert, including wadis and rock outcrops. Most of this desert is composed of bare areas with no or minimal vegetation, composed of widespread and non-threatened species. Small patches of vegetation are present, especially along the wadis. The Greater Moused-tailed bat EAAA also includes mountainous desert. The ESIA considers that the Natural Habitat within the EAAA is highly disturbed and degraded (presence of many access roads and offroad tracks and different types of infrastructure), and not considered a priority (EcoConsult & Safe Soar 2025). Modified Habitat is comprised of wind farm infrastructure (outside the Project area), roads, and the Rhas Garib and Ras Shokeir urban areas that are within the Greater Moused-tailed bat EAAA.

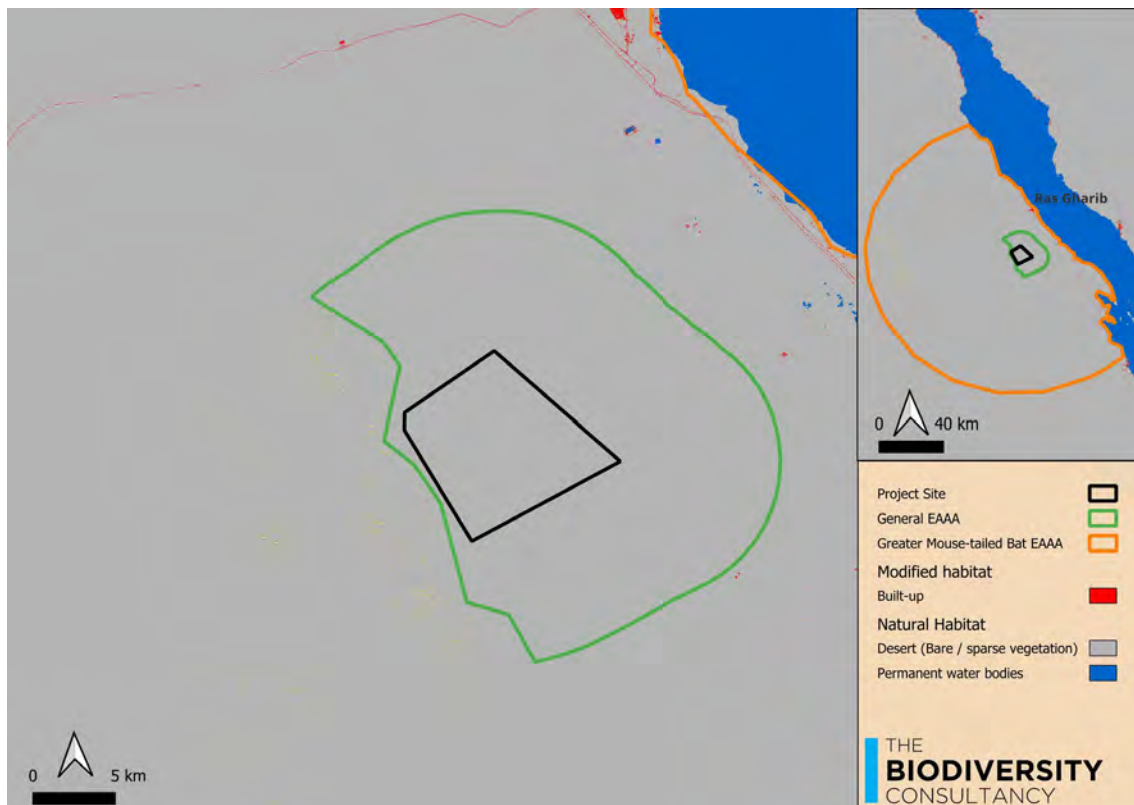


Figure 4. Map of land cover, including natural and modified habitats, across the EAAAs.

3.7 Legally Protected Areas and Internationally Recognised Areas

The Project does not overlap any Legally Protected Area or Internationally Recognized Area.

It is located at 6 km from the Gebel el Zeit KBA, which is also an Important Bird Area (IBA) (Figure 4). This KBA covers 1,584 km² of the Gulf of Suez coast from Ras Gharib in the north to the bay of Ghubbet El Gemsa in the south. It represents a globally important migration corridor for soaring migratory birds, particularly birds of prey, pelicans and storks, which are funnelled through this stretch of coast, between the Gulf of Suez and the Red Sea Mountains, on their spring and/or autumn migrations. Birds of prey, storks and pelicans migrate through and usually land, rest or roost near the coastline and on the surrounding desert plains and hills. Gebel El Zeit itself serves as a stepping-stone for birds that make the crossing between the western coast of the Gulf of Suez and south Sinai in spring. In autumn the area is especially critical as many birds, after crossing the Gulf of Suez, arrive tired, flying at low altitudes and often land in large numbers. The KBA was last assessed in 2001, when counts from the KBA triggered Important

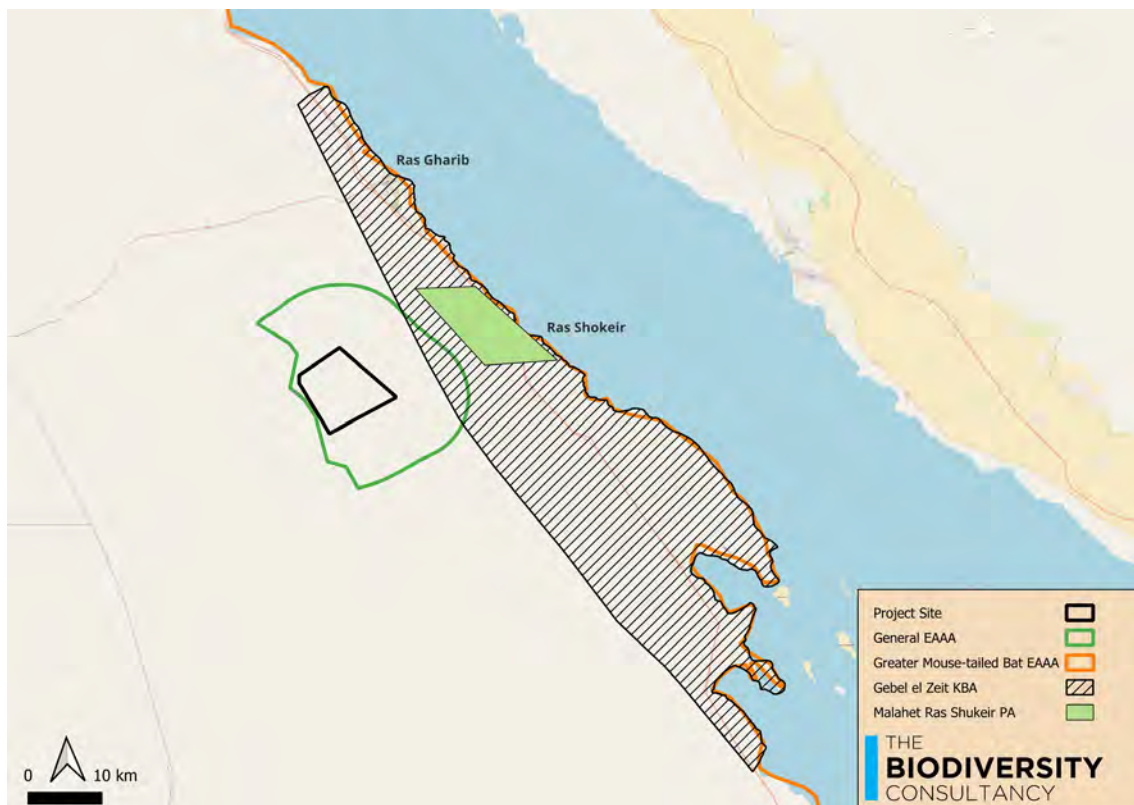


Figure 5. Map of Protected Areas and Internationally Recognised Areas in the context of the EAAAs.

Bird Area (IBA) criteria⁴ A1⁵ (for White-eyed Gull, Eastern Imperial Eagle, Pallid Harrier, and Lesser Kestrel) and A4⁶ (species group – soaring birds/cranes). The KBA has not been formally assessed against the more recent global KBA standard, and while it is possible that one or more of the initial trigger species/groups may not qualify, there is strong evidence that multiple additional species would trigger the designation of the area as a KBA (Key Biodiversity Areas Partnership 2026).

Despite the proximity of the Project from the KBA, it is considered that the Project does not compromise the integrity, conservation objectives and/or biodiversity of the KBA (EcoConsult & Safe Soar 2025).

Project infrastructure is located approximately 12 km West of the proposed Malahet Ras Shukier Protected Area (UNEP-WCMC 2026) (IUCN management category not recorded), which covers an area of 107 km² that encompasses permanent hypersaline wetlands and flat sand plain. It is unlikely that the Project will impact (either directly or indirectly) on biodiversity features in the proposed Malahet Ras Shukier Protected Area (EcoConsult & Safe Soar 2025).

4 Conclusion and recommendations

Based on the available data, this CHA finds that the Project is within an area that meets the IFC/EBRD/EIB definitions of CH for White Stork and Steppe Eagle.

The Project is in an area of mostly NH (desert). Therefore, the Project is required under IFC PS6 to fully exercise the mitigation hierarchy, with an emphasis on measures aimed at avoiding and minimizing impacts. Where significant residual impacts on NH remain, additional remediation and offset measures are likely to be required to achieve NNL, where feasible, on NH and associated significant biodiversity.

The Project is within an area that meets the EBRD definition of PBFs for Dorcas Gazelle and Egyptian Spiny-tailed Lizard and many migratory bird species (see Table 7). Additional surveys directed to the Dorcas Gazelle and associated grazing habitats should be undertaken to confirm that the species regularly occur in the Project area of influence, as the record apparently corresponds to a newly discovered population of this threatened species. EBRD ESR6 requires

⁴ <https://datazone.birdlife.org/site/factsheet/6217-gebel-el-zeit>

⁵ IBA Criterion A1 refers to threatened species

⁶ IBA Criterion A4 refers to congregations: the site is known or thought to hold congregations of more than 1% of the global population of one or more species on a regular or predictable basis

NNL and preferably a NG of PBFs over the long term, to achieve measurable conservation outcomes.

It is especially relevant to manage biodiversity risks to migratory soaring birds, which are particularly at risk from impacts generated by the Project (IFC 2019; EBRD 2025). More than one million migratory soaring birds, including threatened species, cross the flyway during the spring and autumn migratory periods (Porter 2005; Jobson *et al.* 2021). The Project area, in particular, is crossed by thousands of individuals (Camina 2025d, 2025c), which are exposed to the risk of collision with turbines and transmission lines. The NNL requirements for NH, outlined in IFC PS6 13-15 paragraphs, apply to the bird species using the airspace. In addition, EBRD ESR6 paragraph 11 indicates that biodiversity risks should be managed in accordance with the mitigation hierarchy and good industry practice, adopting a precautionary approach and applying adaptive management practices.

IFC PS6 recommends that for high-risk projects, a mitigation strategy should be developed in a Biodiversity Action Plan (BAP). The BAP should describe the strategy to achieve NG for the two critical habitat triggering species and NNL for NH, where feasible, and also for PBFs including the migratory soaring birds.

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Appendix 1 Critical habitat criteria and thresholds

Table A1. Lenders' criteria and thresholds for critical habitat used for this Critical Habitat Assessment (CHA), according to IFC PS6⁷, EBRD ESR6⁸ and EIB ESS4⁹.

	IFC PS6	EBRD ESR6	EIB Standard 4
Globally and regionally threatened species			
Criteria	Criterion 1: Species threatened with global extinction and listed as CR and EN on the IUCN Red List of Threatened Species Species that are listed nationally/regionally as CR or EN in countries that adhere to IUCN guidance shall be determined on a project-by-project basis	Criterion 2: Threatened species (b) IUCN Red List EN or CR species (c) IUCN Red List VU species (d) Nationally or regionally (for example, Europe) listed EN or CR species	Criterion 2: A habitat of priority and/or significant importance to critically endangered, endangered or vulnerable species, as defined by the IUCN Red List of threatened species and in relevant national legislation.
Critical Habitat Thresholds	(a) Areas that support globally important concentrations of an IUCN Red-listed EN or CR species ($\geq 0.5\%$ of the global population AND ≥ 5 reproductive units of a CR or EN species) (b) Areas that support globally important concentrations of an IUCN Red-listed Vulnerable (VU) species, the loss of which would result in the change of the IUCN Red List status to EN or CR and meet the thresholds in (a)	(b) EAAA supports ≥ 0.5 per cent of the global population AND ≥ 5 reproductive units of a CR or EN species (c) EAAA supports globally significant population of VU species necessary to prevent a change of IUCN Red List status to EN or CR, and satisfies threshold (b) (d) EAAA for important concentrations of a nationally or regionally listed EN or CR species	a) A population of an IUCN Red-listed endangered or critically endangered species that is $\geq 0.5\%$ of the global population and/or ≥ 5 established reproductive units of an endangered or critically endangered species b) Significant concentration of an IUCN Red-listed vulnerable species or of multiple IUCN Red-listed vulnerable species, especially where the loss of the area would result in the change of the IUCN Red List status to endangered or critically endangered

⁷ (IFC 2019)

⁸ (EBRD 2025)

⁹ (EIB 2018, 2022)

	IFC PS6	EBRD ESR6	EIB Standard 4
	(c) As appropriate, areas containing important concentrations of a nationally or regionally listed EN or CR species		c) Nationally or regionally important concentration of a species listed as endangered or critically endangered on a regional/national IUCN Red List, or equivalent on national/regional listing.
Priority Feature Threshold	-	(b) Species in the area of impact with IUCN global Red List status of VU, EN or CR. (c) Species in the area of impact with national or regional status of EN or CR	
Endemic and restricted range species			
Criteria	Criterion 2: For terrestrial vertebrates and plants, restricted-range species are defined as those species that have an Extent of occurrence (EOO) less than 50,000 square kilometers (km²). For marine systems, restricted-range species are provisionally being considered those with an EOO of less than 100,000 km². For coastal, riverine, and other aquatic species in habitats that do not exceed 200 km width at any point (for example, rivers), restricted range is defined as having a global range of less than or equal to 500 km linear geographic span (i.e., the distance between occupied locations furthest apart).	Criterion 3: Range-restricted species	Criterion 3: A habitat of priority and/or significant importance to a population, range or distribution of endemic or restricted-range species, or highly distinctive assemblages of species For terrestrial vertebrates and plants, restricted-range species are defined as those species that have an Extent of occurrence (EOO) less than 50,000 square kilometers (km²). For marine systems, restricted-range species are provisionally being considered those with an EOO of less than 100,000 km². For coastal, riverine, and other aquatic species in habitats that do not exceed 200 km width at any point (for example, rivers), restricted range is defined as having a global range of less than or equal to 500 km linear geographic span (i.e., the distance between occupied locations furthest apart).
Critical Habitat Thresholds	Areas that regularly hold ≥10% of the global population size AND ≥10 reproductive units (the minimum number and combination of mature individuals necessary to trigger a successful reproductive event) of a species.	(a) EAAA regularly holds ≥ 10 per cent of global population AND ≥ 10 reproductive units of the species	a) They regularly hold ≥10% of the global population size and support ≥10 reproductive units of an endemic or restricted-range species b) They are considered by relevant specialists to support unique or rare assemblages of species that occur there

	IFC PS6	EBRD ESR6	EIB Standard 4
			habitually, predictably or repeatably. The constituent species may not meet other critical habitat thresholds mentioned here in their own right, but may present assemblages that are considered important to maintain high biodiversity in the area
Priority Feature Threshold	-	(a) All range-restricted species in the area of impact	
Migratory and congregatory species			
Criteria	Criterion 3: Migratory species are defined as any species of which a significant proportion of its members cyclically and predictably move from one geographical area to another Congregatory species are defined as species whose individuals gather in large groups on a cyclical or otherwise regular and/or predictable basis.	Criterion 4: Migratory and congregatory species	Criterion 4: A habitat required for the survival of migratory species and/or congregatory species
Critical Habitat Thresholds	(a) Areas known to sustain, on a cyclical or otherwise regular basis, ≥ 1 percent of the global population of a migratory or congregatory species at any point of the species' lifecycle (b) Areas that predictably support ≥ 10 percent of the global population of a species during periods of environmental stress	(a) EAAA sustains, on a cyclical or otherwise regular basis, ≥ 1 per cent of the global population at any point of the species' lifecycle (b) EAAA predictably supports ≥ 10 per cent of global population during periods of environmental stress	a) They sustain ≥ 1% of the global population of a migratory or congregatory species at any point of the species' lifecycle on a cyclical or otherwise regular basis b) They are needed to support migratory or congregatory species during periods of environmental stress
Priority Feature Threshold	-	(a) All migratory species in the area of impact	
Highly Threatened or Unique Ecosystems			
Criteria	Criterion 4: The IUCN is developing a Red List of Ecosystems; this should be used where formal IUCN assessments have been performed. Where formal IUCN assessments have not been performed, make	Criterion 1: (b) IUCN Red List EN or CR ecosystems	Criterion 1: A highly threatened and/or unique ecosystem;

	IFC PS6	EBRD ESR6	EIB Standard 4
	assessments using systematic methods at the national/regional level.		
Critical Habitat Thresholds	a) Areas representing ≥5% of the global extent of an ecosystem type meeting the criteria for IUCN status of CR or EN. b) Other areas not yet assessed by IUCN but determined to be of high priority for conservation by regional or national systematic conservation planning.	(b) EAAA ≥ 5 per cent of global extent of an ecosystem type with IUCN status of CR or EN (c) EAAA is ecosystem determined to be of high priority for conservation by national systematic conservation planning	a) Priority Habitats (listed in Annex I of the Habitats Directive) and habitats considered to be their equivalent in countries outside the EU b) ≥5% of the global extent of an ecosystem type meeting the criteria for IUCN's Red List of Ecosystems with a status of critically endangered or endangered c) Examples of ecosystems outside the EU and not yet assessed by IUCN, but determined to be of high priority for conservation on the basis of regional or national level systematic conservation planning or informed specialist input
Priority Feature Threshold	-	(b) Ecosystem type with IUCN status of EN or CR	
Key Evolutionary Processes			
Criteria	Criterion 5: The structural attributes of a region can influence the evolutionary processes that give rise to regional configurations of species and ecological properties. For illustrative purposes, some potential examples of spatial features associated with evolutionary processes are as follows: • Landscapes with high spatial <i>heterogeneity</i>. • <i>Environmental gradients</i>, also known as <i>ecotones</i>. • <i>Edaphic interfaces</i> are specific juxtapositions of soil types (for example, serpentine outcrops, limestone, and gypsum deposits). • <i>Connectivity</i> between habitats (for example, biological corridors). • Sites of demonstrated importance to <i>climate change adaptation</i> for either species or ecosystems are also included within this criterion.		Criterion 6: A habitat of key scientific value and/or associated with key evolutionary processes. This may include, but is not limited to, exceptional representations of: a) Landscapes with high spatial <i>heterogeneity</i> b) <i>Environmental gradients</i>, also known as <i>ecotones</i> c) <i>Edaphic interfaces</i> that juxtapose soil types (e.g. serpentine outcrops, limestone and gypsum deposits) d) <i>Connectivity</i> between habitats (e.g. biological corridors) e) Sites of demonstrated importance to <i>climate change adaptation</i> for either species or ecosystems

	IFC PS6	EBRD ESR6	EIB Standard 4
Critical Habitat Thresholds	The significance of structural attributes in a landscape that may influence evolutionary processes will be determined on a case-by-case basis, and the determination of critical habitat will be heavily reliant on scientific knowledge.	Expert Judgement required, no fixed thresholds	Expert Judgement required, no fixed thresholds
Priority Feature Threshold		Expert Judgement required, no fixed thresholds	
Biodiversity of socio-economic value			
Criteria	-	-	Criterion 5: Biodiversity and/or an ecosystem of significant social, economic or cultural importance to local communities and indigenous groups;
Critical Habitat Thresholds	-	-	Areas of semi-natural and natural habitat used by indigenous peoples and local communities to obtain essential or priority benefits will be considered critical from an ecosystem service perspective. Criteria for identifying priority ecosystem services should be developed for each project

Internationally recognized areas

IFC PS6 Guidance Note (GN) 54 (IFC 2019) also states that certain internationally recognized areas of high biodiversity value may be recognized as critical habitat and should be given special attention during assessments. Examples include the following:

- Areas that meet the criteria of the IUCN's Protected Areas Categories Ia, Ib and II (Dudley 2008);
- Key Biodiversity Areas (KBAs), which encompass Important Bird and Biodiversity Areas (IBAs)

Appendix 2 Species screened as part of the CHA

Table A2. List of species initially considered for critical habitat screening within the relevant EAAA boundary derived from the IUCN Red List of Threatened Species. Spatial data accessed via IBAT, and supplemented with species recorded during Project surveys and GBFI data. For the short list of species screened in detail in relation to critical habitat, refer to Table 5.

Scientific Name	Common Name	Class	IUCN Red List Category	National Red List Category	Migratory
<i>Accipiter brevipes</i>	Levant Sparrowhawk	AVES	LC	-	Full Migrant
<i>Accipiter nisus</i>	Eurasian Sparrowhawk	AVES	LC	-	Full Migrant
<i>Aquila chrysaetos</i>	Golden Eagle	AVES	LC	-	Full Migrant
<i>Aquila fasciata</i>	Bonelli's Eagle	AVES	LC	-	Full Migrant
<i>Aquila heliaca</i>	Eastern Imperial Eagle	AVES	VU	-	Full Migrant
<i>Aquila nipalensis</i>	Steppe Eagle	AVES	EN	-	Full Migrant
<i>Buteo buteo vulpinus</i>	Steppe Buzzard	AVES	LC	-	Full Migrant
<i>Buteo rufinus</i>	Long-legged Buzzard	AVES	LC	-	Full Migrant
<i>Circus gallicus</i>	Short-toed Snake-Eagle	AVES	LC	-	Full Migrant
<i>Circus aeruginosus</i>	Western Marsh-Harrier	AVES	LC	-	Full Migrant
<i>Circus macrourus</i>	Pallid Harrier	AVES	NT	-	Full Migrant
<i>Circus pygargus</i>	Montagu's Harrier	AVES	LC	-	Full Migrant
<i>Clanga clanga</i>	Greater Spotted Eagle	AVES	VU	-	Full Migrant
<i>Clanga pomarina</i>	Lesser Spotted Eagle	AVES	LC	-	Full Migrant
<i>Gyps fulvus</i>	Griffon Vulture	AVES	LC	-	Full Migrant
<i>Hieraaetus pennatus</i>	Booted Eagle	AVES	LC	-	Full Migrant
<i>Hieraaetus wahlbergi</i>	Wahlberg's Eagle	AVES	LC	-	Full Migrant
<i>Milvus aegyptius</i>	Yellow-billed Kite	AVES	LC	-	Full Migrant
<i>Milvus migrans</i>	Black Kite	AVES	LC	-	Full Migrant
<i>Neophron percnopterus</i>	Egyptian Vulture	AVES	EN	-	Full Migrant
<i>Pernis apivorus</i>	European Honey-buzzard	AVES	LC	-	Full Migrant
<i>Pernis ptilorhynchus</i>	Oriental Honey-buzzard	AVES	LC	-	Full Migrant
<i>Pandion haliaetus</i>	Osprey	AVES	LC	-	Full Migrant
<i>Anas acuta</i>	Northern Pintail	AVES	LC	-	Full Migrant
<i>Anas crecca</i>	Common Teal	AVES	LC	-	Full Migrant
<i>Anas platyrhynchos</i>	Mallard	AVES	LC	-	Full Migrant
<i>Aythya fuligula</i>	Tufted Duck	AVES	LC	-	Full Migrant
<i>Mareca strepera</i>	Gadwall	AVES	LC	-	Full Migrant
<i>Spatula clypeata</i>	Northern Shoveler	AVES	LC	-	Full Migrant
<i>Spatula querquedula</i>	Garganey	AVES	LC	-	Full Migrant
<i>Tadorna ferruginea</i>	Ruddy Shelduck	AVES	LC	-	Full Migrant
<i>Tachymarptis melba</i>	Alpine Swift	AVES	LC	-	Full Migrant

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<i>Upupa epops</i>	Common Hoopoe	AVES	LC	-	Full Migrant
<i>Apus apus</i>	Common Swift	AVES	LC	-	Full Migrant
<i>Caprimulgus aegyptius</i>	Egyptian Nightjar	AVES	LC	-	Full Migrant
<i>Burhinus oedicephalus</i>	Eurasian Thick-knee	AVES	LC	-	Full Migrant
<i>Charadrius alexandrinus</i>	Kentish Plover	AVES	LC	-	Full Migrant
<i>Charadrius hiaticula</i>	Common Ringed Plover	AVES	LC	-	Full Migrant
<i>Charadrius leschenaultii</i>	Greater Sandplover	AVES	LC	-	Full Migrant
<i>Pluvialis squatarola</i>	Grey Plover	AVES	VU	-	Full Migrant
<i>Vanellus leucurus</i>	White-tailed Lapwing	AVES	LC	-	Full Migrant
<i>Vanellus spinosus</i>	Spur-winged Lapwing	AVES	LC	-	Full Migrant
<i>Cursorius cursor</i>	Cream-coloured Courser	AVES	LC	-	Full Migrant
<i>Glareola nordmanni</i>	Black-winged Pratincole	AVES	NT	-	Full Migrant
<i>Haematopus ostralegus</i>	Eurasian Oystercatcher	AVES	NT	-	Full Migrant
<i>Chlidonias hybrida</i>	Whiskered Tern	AVES	LC	-	Full Migrant
<i>Chlidonias leucopterus</i>	White-winged Tern	AVES	LC	-	Full Migrant
<i>Chlidonias niger</i>	Black Tern	AVES	LC	-	Full Migrant
<i>Gelochelidon nilotica</i>	Common Gull-billed Tern	AVES	LC	-	Full Migrant
<i>Hydroprogne caspia</i>	Caspian Tern	AVES	LC	-	Full Migrant
<i>Larus armenicus</i>	Armenian Gull	AVES	LC	-	Full Migrant
<i>Larus cachinnans</i>	Caspian Gull	AVES	LC	-	Full Migrant
<i>Larus fuscus</i>	Lesser Black-backed Gull	AVES	LC	-	Full Migrant
<i>Larus genei</i>	Slender-billed Gull	AVES	LC	-	Full Migrant
<i>Larus ichthyaetus</i>	Pallas's Gull	AVES	LC	-	Full Migrant
<i>Larus ridibundus</i>	Black-headed Gull	AVES	LC	-	Full Migrant
<i>Onychoprion anaethetus</i>	Bridled Tern	AVES	LC	-	Full Migrant
<i>Himantopus himantopus</i>	Black-winged Stilt	AVES	LC	-	Full Migrant
<i>Recurvirostra avosetta</i>	Pied Avocet	AVES	LC	-	Full Migrant
<i>Actitis hypoleucos</i>	Common Sandpiper	AVES	LC	-	Full Migrant
<i>Arenaria interpres</i>	Ruddy Turnstone	AVES	NT	-	Full Migrant
<i>Calidris alba</i>	Sanderling	AVES	LC	-	Full Migrant
<i>Calidris alpina</i>	Dunlin	AVES	NT	-	Full Migrant
<i>Calidris canutus</i>	Red Knot	AVES	NT	-	Full Migrant
<i>Calidris falcinellus</i>	Broad-billed Sandpiper	AVES	VU	-	Full Migrant
<i>Calidris ferruginea</i>	Curlew Sandpiper	AVES	VU	-	Full Migrant
<i>Calidris minuta</i>	Little Stint	AVES	LC	-	Full Migrant
<i>Calidris pugnax</i>	Ruff	AVES	LC	-	Full Migrant
<i>Gallinago media</i>	Great Snipe	AVES	NT	-	Full Migrant
<i>Limosa lapponica</i>	Bar-tailed Godwit	AVES	NT	-	Full Migrant
<i>Limosa limosa</i>	Black-tailed Godwit	AVES	NT	-	Full Migrant
<i>Numenius arquata</i>	Eurasian Curlew	AVES	NT	-	Full Migrant

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<i>Numenius phaeopus</i>	Whimbrel	AVES	LC	-	Full Migrant
<i>Tringa nebularia</i>	Common Greenshank	AVES	LC	-	Full Migrant
<i>Tringa stagnatilis</i>	Marsh Sandpiper	AVES	LC	-	Full Migrant
<i>Tringa totanus</i>	Common Redshank	AVES	LC	-	Full Migrant
<i>Xenus cinereus</i>	Terek Sandpiper	AVES	LC	-	Full Migrant
<i>Ciconia ciconia</i>	White Stork	AVES	LC	-	Full Migrant
<i>Ciconia nigra</i>	Black Stork	AVES	LC	-	Full Migrant
<i>Oena capensis</i>	Namaqua Dove	AVES	LC	-	Full Migrant
<i>Spilopelia senegalensis</i>	Laughing Dove	AVES	LC	-	Full Migrant
<i>Alcedo atthis</i>	Common Kingfisher	AVES	LC	-	Full Migrant
<i>Coracias garrulus</i>	European Roller	AVES	LC	-	Full Migrant
<i>Merops apiaster</i>	European Bee-eater	AVES	LC	-	Full Migrant
<i>Clamator glandarius</i>	Great Spotted Cuckoo	AVES	LC	-	Full Migrant
<i>Cuculus canorus</i>	Common Cuckoo	AVES	LC	-	Full Migrant
<i>Falco cherrug</i>	Saker Falcon	AVES	EN	-	Full Migrant
<i>Falco concolor</i>	Sooty Falcon	AVES	VU	-	Full Migrant
<i>Falco eleonorae</i>	Eleonora's Falcon	AVES	LC	-	Full Migrant
<i>Falco naumanni</i>	Lesser Kestrel	AVES	LC	-	Full Migrant
<i>Falco peregrinus</i>	Peregrine Falcon	AVES	LC	-	Full Migrant
<i>Falco subbuteo</i>	Eurasian Hobby	AVES	LC	-	Full Migrant
<i>Falco tinnunculus</i>	Common Kestrel	AVES	LC	-	Full Migrant
<i>Falco vespertinus</i>	Red-footed Falcon	AVES	VU	-	Full Migrant
<i>Coturnix coturnix</i>	Common Quail	AVES	LC	-	Full Migrant
<i>Anthropoides virgo</i>	Demoiselle Crane	AVES	LC	-	Full Migrant
<i>Grus grus</i>	Common Crane	AVES	LC	-	Full Migrant
<i>Crex crex</i>	Corncrake	AVES	LC	-	Full Migrant
<i>Porzana porzana</i>	Spotted Crake	AVES	LC	-	Full Migrant
<i>Zapornia pusilla</i>	Baillon's Crake	AVES	LC	-	Full Migrant
<i>Acrocephalus arundinaceus</i>	Great Reed-warbler	AVES	LC	-	Full Migrant
<i>Acrocephalus palustris</i>	Marsh Warbler	AVES	LC	-	Full Migrant
<i>Acrocephalus schoenobaenus</i>	Sedge Warbler	AVES	LC	-	Full Migrant
<i>Acrocephalus scirpaceus</i>	Common Reed-warbler	AVES	LC	-	Full Migrant
<i>Hippolais icterina</i>	Icterine Warbler	AVES	LC	-	Full Migrant
<i>Hippolais languida</i>	Upcher's Warbler	AVES	LC	-	Full Migrant
<i>Hippolais olivetorum</i>	Olive-tree Warbler	AVES	LC	-	Full Migrant
<i>Iduna pallida</i>	Eastern Olivaceous Warbler	AVES	LC	-	Full Migrant
<i>Calandrella brachydactyla</i>	Greater Short-toed Lark	AVES	LC	-	Full Migrant
<i>Emberiza caesia</i>	Cretzschmar's Bunting	AVES	LC	-	Full Migrant
<i>Emberiza cineracea</i>	Cinereous Bunting	AVES	NT	-	Full Migrant

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<i>Delichon urbicum</i>	Northern House Martin	AVES	LC	-	Full Migrant
<i>Hirundo rustica</i>	Barn Swallow	AVES	LC	-	Full Migrant
<i>Ptyonoprogne obsoleta</i>	Pale Rock Martin	AVES	LC	-	Full Migrant
<i>Ptyonoprogne rupestris</i>	Eurasian Crag Martin	AVES	LC	-	Full Migrant
<i>Lanius collurio</i>	Red-backed Shrike	AVES	LC	-	Full Migrant
<i>Lanius excubitor</i>	Great Grey Shrike	AVES	LC	-	Full Migrant
<i>Lanius isabellinus</i>	Isabelline Shrike	AVES	LC	-	Full Migrant
<i>Lanius nubicus</i>	Masked Shrike	AVES	LC	-	Full Migrant
<i>Lanius phoenicuroides</i>	Red-tailed Shrike	AVES	LC	-	Full Migrant
<i>Lanius senator</i>	Woodchat Shrike	AVES	NT	-	Full Migrant
<i>Locustella fluviatilis</i>	River Warbler	AVES	LC	-	Full Migrant
<i>Anthus campestris</i>	Tawny Pipit	AVES	LC	-	Full Migrant
<i>Anthus cervinus</i>	Red-throated Pipit	AVES	LC	-	Full Migrant
<i>Anthus trivialis</i>	Tree Pipit	AVES	LC	-	Full Migrant
<i>Motacilla alba</i>	White Wagtail	AVES	LC	-	Full Migrant
<i>Motacilla flava</i>	Western Yellow Wagtail	AVES	LC	-	Full Migrant
<i>Cercotrichas galactotes</i>	Rufous-tailed Scrub-robin	AVES	LC	-	Full Migrant
<i>Ficedula albicollis</i>	Collared Flycatcher	AVES	LC	-	Full Migrant
<i>Ficedula parva</i>	Red-breasted Flycatcher	AVES	LC	-	Full Migrant
<i>Ficedula semitorquata</i>	Semi-collared Flycatcher	AVES	LC	-	Full Migrant
<i>Luscinia megarhynchos</i>	Common Nightingale	AVES	LC	-	Full Migrant
<i>Luscinia svecica</i>	Bluethroat	AVES	LC	-	Full Migrant
<i>Monticola saxatilis</i>	Rufous-tailed Rock-thrush	AVES	LC	-	Full Migrant
<i>Monticola solitarius</i>	Blue Rock-thrush	AVES	LC	-	Full Migrant
<i>Muscicapa striata</i>	Spotted Flycatcher	AVES	LC	-	Full Migrant
<i>Oenanthe cyriaca</i>	Cyprus Wheatear	AVES	LC	-	Full Migrant
<i>Oenanthe hispanica</i>	Black-eared Wheatear	AVES	LC	-	Full Migrant
<i>Oenanthe isabellina</i>	Isabelline Wheatear	AVES	LC	-	Full Migrant
<i>Oenanthe lugens</i>	Mourning Wheatear	AVES	LC	-	Full Migrant
<i>Phoenicurus ochruros</i>	Black Redstart	AVES	LC	-	Full Migrant
<i>Phoenicurus phoenicurus</i>	Common Redstart	AVES	LC	-	Full Migrant
<i>Saxicola rubetra</i>	Whinchat	AVES	LC	-	Full Migrant
<i>Saxicola torquatus</i>	Common Stonechat	AVES	LC	-	Full Migrant
<i>Oriolus oriolus</i>	Eurasian Golden Oriole	AVES	LC	-	Full Migrant
<i>Phylloscopus collybita</i>	Common Chiffchaff	AVES	LC	-	Full Migrant
<i>Phylloscopus orientalis</i>	Eastern Bonelli's Warbler	AVES	LC	-	Full Migrant
<i>Phylloscopus sibilatrix</i>	Wood Warbler	AVES	LC	-	Full Migrant
<i>Phylloscopus trochilus</i>	Willow Warbler	AVES	LC	-	Full Migrant
<i>Curruca cantillans</i>	Subalpine Warbler	AVES	LC	-	Full Migrant

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<i>Curruca communis</i>	Common Whitethroat	AVES	LC	-	Full Migrant
<i>Curruca crassirostris</i>	Eastern Orphean Warbler	AVES	LC	-	Full Migrant
<i>Curruca curruca</i>	Lesser Whitethroat	AVES	LC	-	Full Migrant
<i>Curruca melanothorax</i>	Cyprus Warbler	AVES	LC	-	Full Migrant
<i>Curruca mystacea</i>	Menetries's Warbler	AVES	LC	-	Full Migrant
<i>Curruca nisoria</i>	Barred Warbler	AVES	LC	-	Full Migrant
<i>Curruca ruppeli</i>	Rüppell's Warbler	AVES	LC	-	Full Migrant
<i>Sylvia atricapilla</i>	Eurasian Blackcap	AVES	LC	-	Full Migrant
<i>Sylvia borin</i>	Garden Warbler	AVES	LC	-	Full Migrant
<i>Turdus philomelos</i>	Song Thrush	AVES	LC	-	Full Migrant
<i>Ardea cinerea</i>	Grey Heron	AVES	LC	-	Full Migrant
<i>Ardea purpurea</i>	Purple Heron	AVES	LC	-	Full Migrant
<i>Ardeola ralloides</i>	Squacco Heron	AVES	LC	-	Full Migrant
<i>Bubulcus ibis</i>	Cattle Egret	AVES	LC	-	Full Migrant
<i>Egretta garzetta</i>	Little Egret	AVES	LC	-	Full Migrant
<i>Pelecanus onocrotalus</i>	Great White Pelican	AVES	LC	-	Full Migrant
<i>Platalea leucorodia</i>	Eurasian Spoonbill	AVES	LC	-	Full Migrant
<i>Plegadis falcinellus</i>	Glossy Ibis	AVES	LC	-	Full Migrant
<i>Jynx torquilla</i>	Eurasian Wryneck	AVES	LC	-	Full Migrant
<i>Pterocles senegallus</i>	Spotted Sandgrouse	AVES	LC	-	Full Migrant
<i>Asio flammeus</i>	Short-eared Owl	AVES	LC	-	Full Migrant
<i>Heliothis peltigera</i>	Bordered Straw	INSECTA	-	-	Full Migrant
<i>Vanessa cardui</i>	Painted Lady	INSECTA	LC	-	Full Migrant
<i>Anax ephippiger</i>	Vagrant Emperor	INSECTA	LC	-	Full Migrant
<i>Sympetrum fonscolombii</i>	Red-veined Darter	INSECTA	LC	-	Full Migrant
<i>Capra nubiana</i>	Nubian Ibex	MAMMALIA	VU	EN	Not a Migrant
<i>Gazella dorcas</i>	Dorcas Gazelle	MAMMALIA	VU	VU	-
<i>Rhinopoma microphyllum</i>	Greater Mouse-tailed Bat	MAMMALIA	LC	VU	Full Migrant
<i>Uromastix aegyptia</i>	Egyptian Spiny-tailed Lizard	REPTILIA	VU	-	-