



Enviroment and Climate
Regional Accession Network

ECRAN

TAIEX-ECRAN Sub-Regional Workshop on Appropriate Assessment of the Lake Tuz (Tuz Gölü) Pilot Site (Natura 2000)

Workshop II: Main Assessment

Topic: Appropriate Assessment of Tuz Cargo Airport - II

Ankara, Turkey 27 – 28 October 2015



This Project is funded by the European Union



A project implemented by Human Dynamics Consortium

2. Field survey

- Current biological situation within the assessed area
- Possible location of target features within the assessed area: data on affected target features must relate to project location, not only to SPA/SCI
- Quantification of target features within the assessed area
- Quantification of affected target features within whole SPA/SCI where these data are not available
- Assessment of possible cumulative effects of the assessed project with other projects and trends within the SPA/SCI
- Field survey helps to understand ecological relations within the project location, interactions with other projects, landuse and any other factor of possible cumulative effects

2. Field survey

- **Who should carry out the field survey:**
 - Ornithologist if assessed project applies to a SPA
 - Botanist if target features of a SCI are plant species or habitats
 - Zoologist with corresponding specialization depending on target animal species within the SCI
- **Appropriate assessment field survey is frequently a team work of various specialists**
- **Appropriate assessment should be guaranteed by one responsible expert experienced in biology as well as in relevant legislation**

2. Field survey

What is unnecessary to carry out during the field survey:

- Impacts on non-target features within SPA/SCI (subject of other types of assessments, e.g., EIA)
- General environmental impacts (subject of EIA)
- Influences on landscape scenery

2. Field survey

What is unnecessary to carry out during the field survey:

- Impacts on landuse outside location of target features (if this is not in conflict with target features ¹⁾)
- Architectural design of the project (if this is not in conflict with target features ²⁾)

¹⁾ possible changes of landuse influencing habitats for target features

²⁾ possible risks of glass walls for birds, changes in bat refuges on buildings, design of potential migration corridors and other possible influences of architectonical arrangements on animals

2. Field survey

Possible location of target features of SCI within the assessed sites

- Target habitats (Annex I of HD):

Not listed for Turkey yet, it will be necessary to prepare the list of habitats for this biogeographical region

- Target species (Annex II of HD):

Not listed for Turkey yet, it will be necessary to prepare the list of species for this biogeographical region

2. Field survey

Possible location of target features of SCI within the assessed area

- During field survey populations of some species from Annex II of Habitats Directive were observed, some of these species were frequent



Greek Tortoise
(*Testudo graeca iberica*)

European Ground Squirrel
(*Spermophilus citellus*)



Pond Turtles (*Emys orbicularis*)



2. Field survey

Possible location of target features of SPA within the assessed area

- During the field survey there were observed:

Breeding Species	BD Annex	Population estimated
Eastern Imperial Eagle (<i>Aquila heliaca</i>)	I	1 pair
Greater Flamingo (<i>Phoenicopterus roseus</i>)	I	About one thousand
Lesser Kestrel (<i>Falco naumanni</i>)	I	1 pair
Montagu's Harrier (<i>Circus pygargus</i>)	I	1 pair
Yellow-legged gull (<i>Larus michahellis</i>)		tens

Wintering and passaging species	BD Annex	Population estimated
Common Shelduck (<i>Tadorna tadorna</i>)		About 20 individuals
Ruddy Shelduck (<i>Tadorna ferruginea</i>)	I	2 pairs
Other waterfowl		hundreds

2. Field survey

Possible location of target features of SPA within the assessed sites

- During the field survey other bird species listed in Annex I of Birds Directive were observed like:
 - Calandra Lark (*Melanocorypha calandra*)
- Bird species living outside Europe and not listed in Annex I, for example
 - Black-headed Wagtail (*Motacilla flava feldegg*)



2. Field survey

Quantification of affected target features within the whole SPA/SCI where these data are not available

- In case of real AA, field survey focused on gathering of quantitative data should be carried out for a long time
- Lake Tuz is quite a large area and real assessment would take a lot of time for the field survey

2. Field survey

Quantification of affected target features within the whole SPA/SCI where these data are not available

In case of the real AA, field survey should include:

- *Quantification of populations of target species and habitats within the areas is impossible to calculate without knowledge (list) about target species and target habitats*
- *Verification of numbers of wintering, migrating and nesting birds on each local site would take at least **30 man-days***

2. Field survey

Assessment of possible cumulative effects of the assessed project with other projects and trends within the SPA/SCI

- Intensive agriculture on arable land (nutrients (N, P), organic matter and soil outwash production)
- Spreading of weeds, nitrophytic and ruderal habitats and invasive species by intensive agriculture
- Decrease of number of stock and reduction of pastoral areas

3. AA findings and results

- Clear decision on the likely impacts
- Affected target features within the assessed areas
- Quantification of affected target features
- Mitigation measures proposed where appropriate
- Clear decision if the identified impacts would have significant effect on target features
- Conclusions on the impact on site integrity

3. AA findings and results

Likely affected target bird species within the assessed site (SPA)

Species	Season	Population estimated
Eastern Imperial Eagle (<i>Aquila heliaca</i>)	breeding	2 breeding pairs
Greater Flamingo (<i>Phoenicopterus roseus</i>)	breeding	14,000 breeding pairs
Waterfowl species	wintering and migrating	more than 100,000 individuals



Flamingoes on temporary lake near the village Sağlık



Common shelduck on marches south from Düden Gölü

Pied avocets on marches near the village Zincirlikuyu

3. AA findings and results

Likely affected target features within the assessed site (pSCI)

There are no reference lists nor lists of target features from Annex I and Annex II of Habitats Directive for Lake Tuz

- For proposed SCI Lake Tuz quantitative data on area of habitats and population parameters do not exist
- Some species listed in Annex II, were observed close to the road proposed as route for sand transportation during airport construction



3. AA findings and results

Quantification of the impacts on particular target features and decision on the impact significance (SPA)



Greater Flamingos (*Phoenicopterus roseus*) on Lake Düden Gölü near the town Kulu

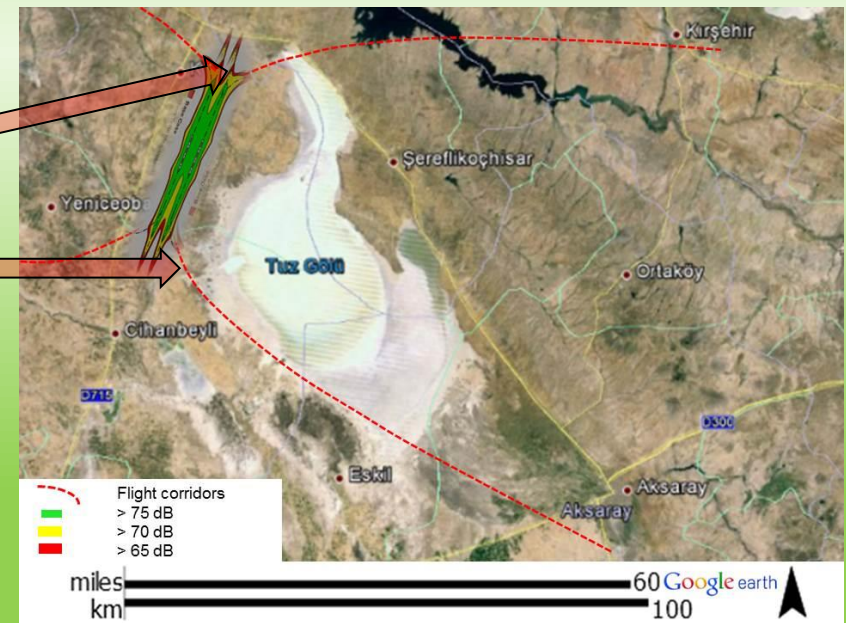
3. AA findings and results

Quantification of the impacts on particular target features and decision on the impact significance (SPA)

About one thousand of Flamingos use round the year Lake Düden Gölü near town Kulu and several hundreds of Flamingos use temporarily small wetlands and lakes during winter and spring. It represents at least 4 % of that population.

Lake Düden Gölü

Temporary lake near village Sağlık



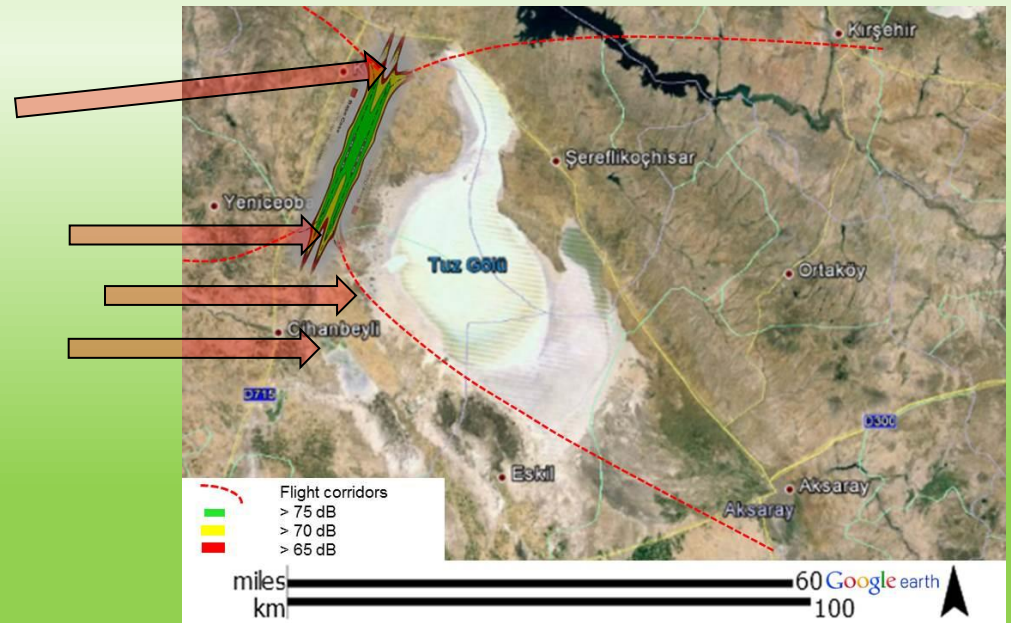
3. AA findings and results

Quantification of the impacts on particular target features and decision on the impact significance (SPA)

Migrating and wintering birds use feeding sources on Lake Düden Gölü as well as temporary marches near the proposed airport

Lake Düden Gölü

Temporary lake near villages Sağlık, Zincirlikuyu and Tuzyaka, where flocks of migrating birds were observed during the field survey

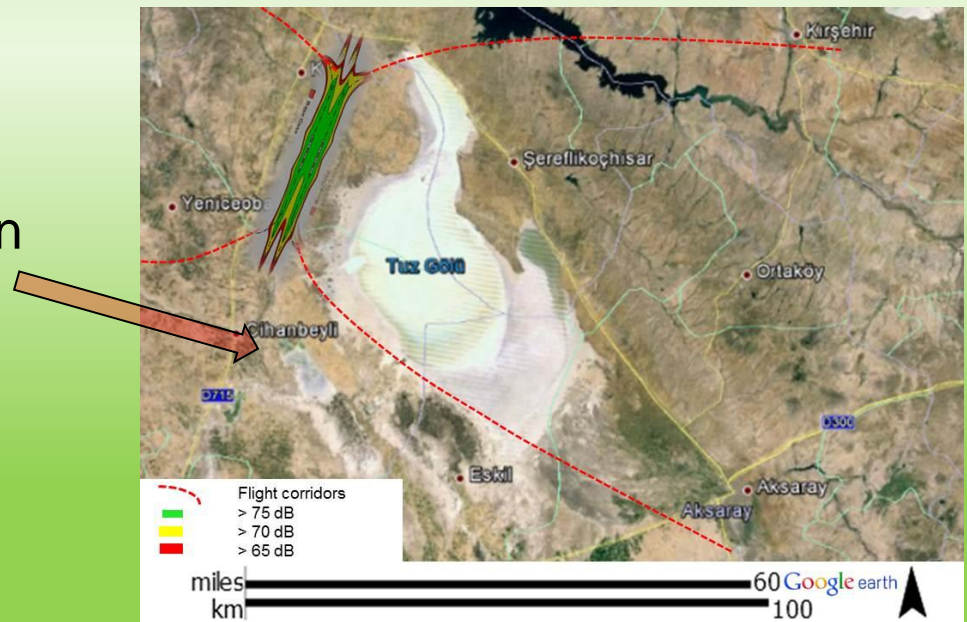


3. AA findings and results

Quantification of the impacts on particular target features and decision on the impact significance (SPA)

One pair (50% of the local population) of Eastern Imperial Eagles (*Aquila heliaca*) was observed close to the limestone quarry south of Cihanbeyli where the cement production is planned. These birds need large territories. Any disturbance would limit the territory of eagles.

The area where the pair of Eastern Imperial Eagles was observed during the field survey



3. AA findings and results

Quantification of the impacts on particular target features and decision on the impact significance (SPA)

Lack of listed target features from Annex I and Annex II of Habitats Directive & lack of quantitative data on possible target features



impact significance impossible to assess

3. AA findings and results

Conclusions on the impact on site integrity

- If any target feature is likely to be significantly affected, the site integrity will be adversely affected, too
- The appropriate assessment proves that the implementation and especially operation of the Tuz Cargo Airport will significantly adversely affect some target features and their habitats (especially feeding sources) of the proposed SPA Lake Tuz.
- That is why the ascertained impact of the project on these birds has been assessed as having the adverse impact on site integrity.

Therefore, the project must not be authorised.

3. AA findings and results

Clear decision if the assessed impacts would be possible to mitigate

- The results of the appropriate assessment have proven significant negative effects of the implementation and operation of the Tuz Cargo Airport project on site target features
- The project was proposed without alternatives, project design excludes any mitigation measure (=impacts of the project cannot be mitigated)

4. Lack of data necessary for AA of the pilot project

- No available data on the abundance and density of target populations of plants and animals within assessed pSCI as well as within the whole country
- No available data on target habitats within assessed pSCI as well as within the whole country

4. Lack of data necessary for AA of the pilot project

- For the real assessment of this project it would be necessary to invest at least about 30 expert man-days of the field work into ornithological surveys, including winter observation of wintering and migratory bird feeding sites.