



IC 27 – Monte Francisco – Odeleite (12 km)

Ecological Aspects

1. General Overview

- Highway included in the National Road Network of Portugal, Alternative route to the Eastern areas of Algarve;
- Project was submitted in to an Environmental Impact Assessment (Public Consultation; Government ratification; Public Discussion);
- Project is located 5 km distance from the Guadiana's River Natural Park (Natural Protected Area);
- The Project do not cross the nature 2000 site approved by the National Legislation (Ministry Resolution Consul n.º 142 / 97);

2. Region's Description Summary:

Typical landscape of the interior part of Algarve. Has an accentuated uneven relief, deep valleys, several seasonally water lines presence. Characterized by three different kinds of land occupation (not including human occupation):

- Agriculture zones;
- Autochthonous forest areas;
- Marginal brook areas

3. Highway Project Phase – (Environmental Impact Study)

Flora and Fauna Aspects

a) Main Objectives:

- Analyse possible measures to facilitate a free movement for different animal species;
- Maintain and preserve as long as possible the original habitat conditions;
- Avoid habitat loss or habitat fragmentation.
- Offer safe passages to wild existing fauna

b) Negative Impacts Prediction:

- Barrier effect for fauna species;
- Habitat loss and habitat fragmentation;
- Risk of Car Accidents causing by the presence of large mammals on the highway;
- Trampling risk of important animal species;
- Temporary alterations/ destruction of the existing flora of the river-banks borders;



c) Study Methodology

- Camp Visits "in situ";
- Local Contacts (e.g. local persons, shepherds, farmers);
- Technical Bibliography Consulting;
- Local Maps Analysis (Project maps, Autarchy maps, others);
- Flora and Fauna Appropriate Software Models (Habitats Valuation Models);

d) Results

Table 1 – Characterization of the most important fauna species vs landscape units, included on EIS

Landscape Unit	Summary of the important species
Agriculture zones (agriculture land fields; grass camps)	Birds of prey; <ul style="list-style-type: none"> • <i>Falco tinnunculus</i>; • <i>Buteo buteo</i>; Screech – owl species <ul style="list-style-type: none"> • <i>Tyto alba</i> Bat species <ul style="list-style-type: none"> • <i>Rhinolophus hipposiderus*</i>
Autochthonous forest areas (e.g. <i>Quercus Rotundifolia</i> ; <i>Cerantonia siliqua</i> ; <i>Pinus pinea</i>)	Mammals <ul style="list-style-type: none"> • <i>Felis sylvestrin</i>; • <i>Mustela putorius</i>; • <i>Sus scrofa</i> – wild boar*; • <i>Cervus elephus</i>- deer*
Marginal brook areas (e.g. <i>Tamarix africana</i> ; <i>Nerium oleander</i> ; <i>Pistacia lentiscus</i> ; <i>Olea europaea sylvestrin</i>)	Amphibious <ul style="list-style-type: none"> • <i>Triturus memnoratus*</i>; • <i>Salamandra salamandra*</i>; • <i>Rana perezi*</i>; Reptiles <ul style="list-style-type: none"> • <i>Muraenys leprosa*</i>; • <i>Natrix natrix*</i> Mammals <ul style="list-style-type: none"> • <i>Lutra lutra</i>

*Confirmed Species

e) Mitigation Measures

- I) Light and View Reducing Measures
 - Implantation of 156 warning bird mirrors specially used for avoid accidents provoked by some bird species foreground by night.
 - Total Cost: Around € 5 000.
- II) Fences
 - a. Implantation of combined fences all over the highway
 - b. Fences Specifications:
 - Height : 1,6 meters (wire spacing in the first 0,6 meters : 0,05 m);
 - Wire thickness : 2 millimetres;



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