

## Additional Material

### Ecosystem services

### Social and cultural values

The Vascão River valley has a grand landscape value and is a great place for several activities such as:

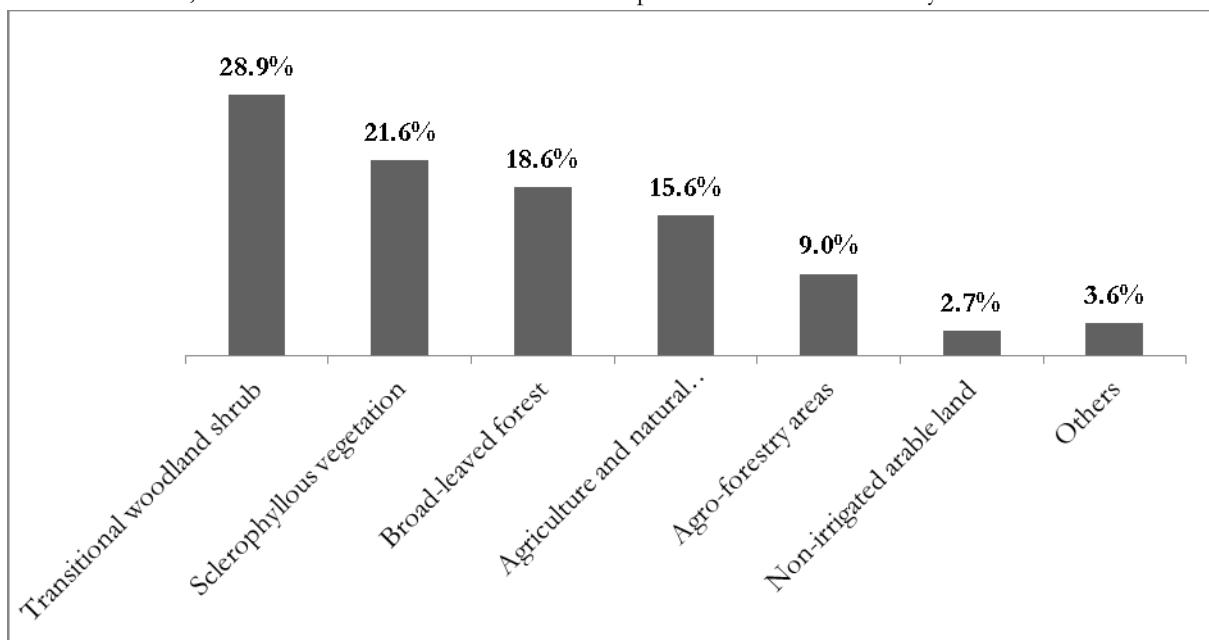
- Outdoor activities: hiking, picnics, geocaching, fauna and flora observation;
- Nature sports: sport fishing, hiking, orientation pros, peddy-papers;
- Environmental education, usually directed to the nearest schools; fauna and flora observation accompanied by experienced guides in the matter;
- Places with archeological value: in the site there are many structures that represent the very high archeological value of the region. The noteworthiness are:
  - Mills Route – this is a route that visits several waters mills and other hydraulic engineering structures that are no long running but are open for the public to visit them in order to participate in activities of environmental education, promotion and valorizations of the natural, cultural and social resources of the present and the past. In this route there are some hydraulic engineering with more than 5000 years (Guita, 1999). The principal mills on Vascão River are: Alferes Mill, Cancelas Novas Mill, Chavachã Mill and João Dias Mill.
  - Relíquias Castle – it is localized in Alcoutim municipality and dates from the Islamic period. It was a rural fortification that ruled a territory which included several villages and was rich in minerals and copper. On the exterior remain traces of an old village that existed facing the Vascão River (Catarino, 1999).
  - São Bartolomeu da Via Glória – is and old village from the roman and Islamic periods, occupied from the V-VI century until the XI-XII. It is located near the Vascão River and it is upon a rock platform with about 30 000 m<sup>2</sup>. The old habitation structures are yet visible. Near the village is the São Bartolomeu Chapel which has in its interior remains of architectural elements and gravestones from the VI-VII centuries and mannerist paintings from the century XVI. North of the Chapel were found several ceramic pieces, mostly of the Roman period (fragment Dolium and amphorae) and also from the Islamic period (common ceramic tiles) (Lopes, 2003).
  - Santa Cruz Church – is the oldest religious building of the county, and was part of the Santiago Military Order. On the main facade stands out the Manuelino gateway and, on the inside, the three aisles of the church, four lateral altars and the main altar on the center. Its construction began in 1955 and it was reconstructed and repaired several times, ordered by the General Direction of National Buildings and Monuments, since 1962.
  - Near Vascão River, we can also find the Santo António Chapel, the Nossa Senhora da Conceição Chapel and the Corte Figueira Chapel (IGESPAR, 2011).

The site is has not an archeological international importance. However, at a national level it presents an enormous value in this context. Around Vascão River were found innumerable artifacts with archeological value, the majority of them from the Roman or Islamic periods. Most of them are linked to little villages that existed in Vascão River margins, using the river has a source of sustenance. The numerous mills on the area are the most obvious proof of the village's existence. Also, there were found several orchards, weirs and wells vestiges near Vascão River, surrounded by hydraulic structures that presented the dragging of the fertile soils. These structures are inedited in the whole world and are described by the archeologists

as “little platforms on the base of the hill, dominating a fertile lowland on the left margin of the Vascão River” (IGESPAR, 2011).

## Current land use

On the catchment area of Vascão River, according to the Corine Land Cover 2006, the land use is mostly occupied by: transitional woodland shrub; sclerophyllous vegetation; broad-leaved forests; Land principally occupied by agriculture, with significant areas of natural vegetation; agro-forestry areas; non- irrigated arable land; water; and others (annual crops associated with permanent crops; Complex cultivation patterns; Fruit trees and berry plantations; Natural grasslands; Coniferous forest). The Vascão River occupies, in the normal period, 262.39 hectares, which is 0,6% of the site. However, this value does not consider the flood period neither the tributary's surface runoff.



**Graph I** – Land use in the Site Ribeira do Vascão.

To see the land use with better detail, please consult the Annex VI (Land Use Map) or the Annex X (Digital Project).

The number of residents, there are no precise numbers inside the Site. However, the number of residents of the surrounding council is shown on Image I.



**Image I** – Habitats of the councils around Vascão River.

## Scientific facilities

The Natural Park Vale do Guadiana receive interns and scientists for developing investigation projects. Currently there are going on the following projects:

- Monitoring of the fish community of Vascão River, by the Natural Park technicians;
- Master thesis of Tiago Navarro “Conservação dos peixes endémicos do Guadiana – *Alosa falax*” (Conservation of the endemic fish of Guadiana – *Alosa falax*), 2011;
- Master thesis of Diogo Venado “Ecologia Trófica do *Micropterus salmonoides*” (Trophic ecology of *Micropterus salmonoides*”), 2011;

On the last decade were realized several projects and studies about the Vascão River, such as:

- Evaluation of the order Odonata in Ribeira do Vascão in order to obtain Ramsar status, (Vieira, 2009), with the publication of the paper “Registry of four new Odonata species in Ribeira do Vascão” (Vieira *et al*, 2010);
- Numerical syntaxonomy of the forestall and pre-forestall communities in Baixo Alentejo (Capelo, 2007);
- Inventory of the vegetation of Ribeira do Vascão (Marinho, 2009);
- The Asian clam *Corbicula fluminea* in the Guadiana River Basin (Morais *et al*, 2009);
- Freshwater bivalves in the Guadiana Basin (Teodósio, 2003), that later was integrated in Atlas of Freshwater Bivalves in Portugal continental (Reis, 2006);
- Program Life-Nature “A conservation strategy for Jaramugo (*Anaecypris hispanica*), na endemism” (Collares-Pereira *et al*, 2008);

- Utilization of Guadiana river and its tributaries by the Otter (*Lutra lutra*) in the área of the Guadiana Valley Natural Park (Lopes, 1998).

### Current recreation and tourism

Vascão River site is used as a recreation area, mostly during the bathing season, where the population usually goes on the weekends for a bath in the river, picnics, and other leisure activities. The tourism is essentially local, however the numbers are unknown. In the site there are no installations to attend or host tourists but near there, Mértola village is a tourist center of excellence in Alentejo.

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## Legislation

### International legislation:

Berne Convention - Council Decision 82/72/EEC of 3 December 1981 concerning the conclusion of the Convention on the conservation of European wildlife and natural habitats.

Birds Directive - Council Directive 79/409/EEC of 2 April 1979, on the conservation of wild birds

Bonn Convention - Council Decision 82/461/EEC of 24 June 1982 on the conclusion of the Convention on the conservation of migratory species of wild animals.

CITES - Convention on International Trade in Endangered Species of Wild Fauna and Flora - Council Regulation – (EC) No. 338/97 on the protection of species of wild fauna and flora by regulating trade therein.

Habitats Directive – Council Directive 92/43/EEC of 21 May 1992, on the conservation of natural habitats and wild fauna and flora.

### National legislation:

Protecção do sobreiro e da azinheira – Decreto-Lei n.º 169/2001 de 25 de

Maio. Lei do Património – Decreto-Lei n.º 107/2001 de 8 de Setembro.

Regime jurídico dos terrenos do domínio público hídrico – Decreto-Lei n.º 468/71 de 5 de Novembro.

