ABSTRACT:
Morocco possesses a wealthy natural heritage which deserves to be recognized, valued and protected; it is characterized by vast outcrops of quality grounds which contain testimonies of phenomena and geological processes of an exceptional worth, in terms of geo-diversity. Every region of the country has particular landscapes and outcrops that draw the historical image of the area which only the geologist is able to translate them into common language. The geological component is harmoniously integrated into the natural and historical landscapes of High Atlas of Marrakesh. Ourika’s valley is a diversified territory, both in terms of geographical formations and in terms of climate. However, the importance of the geological heritage is actually underestimated and barely known. It is thus necessary to stimulate the interest and to draw the attention of the visitors by adequate means, so as they could discover and know about this kind of heritage as well as recognize it. In this sense, the integration of geo–tourism, that is considered a concept of sustainable development yet adapted to the environment, comes to value a type of tourism which protects and values the geographical character: its environment, its heritage, its beauty, its culture and the well-being of its residents. Seen from this angle, the geology opens to the general public and offers the opportunity to review the history of our area. Hence, the ultimate objective of this work is:

- To widen and to simplify the notion of the geological heritage so as the public can easily understand it.
- Strengthening the scientific knowledge of the natural heritage of the region for a better bearable touristic exploitation.
- Improving the tourism bound to the natural goods which is considered an added value of the territory.
- The Preservation and the valorization of the geological heritage as well as the possibility of activating adequate measures for the management of natural resources.

Key words: Geo-tourism, Geological heritage, Management, Ourika’s valley, High Atlas of Marrakesh.

INTRODUCTION
Morocco has assets and a natural heritage that deserve to be better known, valued and protected. As widely recognized by researchers, it is characterized by vast outcrops of high-quality land, of varying nature and age, containing testimony of geological phenomena and
processes of exceptional value, in terms of geo-diversity and eco-diversity. The geological and geomorphological component integrates harmoniously in the natural and historical landscapes of the high Atlas Mountains. However, geological, geomorphological and environmental heritage is currently undervalued and ignored by the general public. It is therefore necessary to stimulate interest and attract the attention of tourists through appropriate instruments for the discovery and knowledge of the geological, geomorphological and environmental heritage of Ourika’s Valley. This study aims to enrich the tourist attraction of this region through several recovery actions; It aims to support and strengthen the growth of a tourism economy through better management of the Territory's natural resources, based on the principles of sustainable development. Recognition, inventory of geo-sites and the geo-tourism of the natural heritage will allow:

- **Strengthening scientific knowledge of the environmental heritage**;
- The creation of a network of thematic pathways related to geological heritage, geo-diversity and diverse landscape potentialities;
- Developing the type of tourism related to natural property;
- Conservation and enhancement of geological, geomorphological and environmental heritage;

### Part I: GENERAL FRAMEWORK OF THE STUDY AREA

#### 1. Geographic Location of Ourika’s Watershed:

Ourika’s watershed is located in the High Western Atlas 35 km northeast of the city of Marrakech. Approximately 576 km², it is geographically between 31 ° and 31 ° 21 ' N and between 7 ° 30' and 7 ° 60 ' W longitude. It is restricted to the north by the Haouz plain, south by the high basin of oued Souss, east by the Zat watershed and in the west by the Rherhaya and Issil outlets.

The average altitude at the basin level is 2500 m with the predominance of the lands between 848 m and 3200 m (75%), the peak point of the basin is that of Jbel Iferouane (4001 m) and the outlet of the watershed is at an altitude of 848 m.

Three main physiographic units are individualized:
The areas of the piedmont with an altitude of around 600 m;
The Oued Ourika valleys and its tributaries;
High mountain areas and altitude plateaus.

Administratively, the area falls within the territory of three provinces:

- **Al Haouz Province**: 90% of the area;
- **Provinces of Ourazazate and Taroudant**: 10%.

2. Geomorphology and Geology:

The Ourika watershed is one of the basins of the Atlasic range (High Atlas of Marrakech) extending from the Atlantic Ocean to the west to Tunisia to the east, a typical intra-cratonic range, significantly elongated according to direction ENEWSW at E-W. According to (Saadi and Baou, 2005), the Ourika region is divided into four structural zones parallel to the Atlas axis and extended from South to North:

- **Axial Zone**: it concerns the highest part of the High Atlas with the Toubkal’s mountain which is 4165 m. It consists predominantly of granite from Precambrian land and the Toubkal andisite;
- **Highlands Zone**: located at about 2500 m, such as Adrar Yagour, Timenkar and Tizrag. It is a permo-triasic unit, usually formed by sandstones, conglomerate and red marts, however, dominant formations are the dominant pink biotite granite;
- **Piedmonts Zone**: it consists of a subatlantic area formed, made up of hills, depressions and plateaus. There is dominance of conglomerate formations from Lias Cretaceous, viséan flyschs, limestone and friable sandstone (1 st unit of Permo-Trias);
- **Area of the Haouz Plain**.

![Ourika Watershed Geological Map “Proust 1961”](image_url)
These four areas are morphologically, geologically and structurally different. From a structural point of view, this basin is affected by major inverted approximately N 70°-oriented faults. This orientation is parallel to the direction of the Atlasic range.

3. Climate:
On the bioclimatic front, Ourika’s watershed is subject to a semi-arid bioclimate with a cool variant, characterized by the dominance of the HPAE rainfall pattern, where peak precipitation is collected during winter and spring (Saadi and Baou, 2005). Indeed, over a period of 35 years, the annual rainfall varies between 525.9 mm at Agbhalou station and 321.2 mm at Agouns station. The summer season is characterized by strong thunderstorms causing brutal pulsations of the watercourse. The temperature for it varies between 48.2 °C and -7.2 °C, with an average of 27.8 °C.

PART II: OURIKA’S VALLEY OVERVIEW OF ITS DIVERSITY AND NATURAL HERITAGE:

1. The structural heritage in the Atlas of Marrakesh:
About 30 km from Marrakesh, we distinguish the most famous morphological units, the most famous places and peaks where the morphology presents a succession of rising rock steps towards the south:

- **The subatlasic area:** corresponds to the first reliefs that vary between 1,000 m and approximately 1,500 m. It consists of tertiary and Cretaceous terrain (Jbel Saal) and then permo-triassic based on carboniferous terrain (Isk n’Tanoumri, Tilboura n’Igourram);

- **The Highlands Zone:** between 2300 m and 2700 m, such as the Yagour, Timenkar and Tizerag (Oukaimeden), corresponding to the Triassic glowing rocks;

- **The axial zone:** a magmatic and metamorphic of Precambrian age, the peaks of which exceed 3500 m: Meltsen, Taska-n-Zat, Tougrouladen, Arjout, Angour, and more to the southwest, the Toubkal, Ouanoukrim and Tazaghart.

This morphological layout reflects the organization of structural units, consisting of increasingly old material toward the axis of the range which has by major faults during atlasic compression.

2. Geomorphosites with strong structural components:
The Ourika Valley geomorphosites are distributed through different geological and geomorphological zonations:

**Stop: The North Ataskic Front in Tnine Ourika**
GPS: 31 ° 21 ' 58 "N; 7 ° 46 ' 57 "W (alt. 900 m)

The stop is ~ 1.5 km to the SE of the agglomeration, on the upper terrace of Ourika, where the view rises on the opposite shore. It allows us to observe a highly repaired marly chalky series (Eocene), limiting the molassic series itself to the south (figure 3). Cretaceous lands forming the anticlinal are separated from the Triassic further south by a straddling fault.

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Optional section: If time permits, it is easy to make the section of the Eocene series and the base of the molasses by dealing with a runway down to the N in the right of l’oued. This track (visible on fig. 3) follows an overlapping fault that overlaps the vertical side of the frontal fold. molasses exhibit fluvial sedimentation, with polygenic conglomerates, and rare conglomeratic levels with oblique stratification. From our point of observation, the view is also clear towards the Ourika Valley. This is a popular destination for the habitants of Marrakech and external tourists: The valley offers freshness in summer and serves the Oukaimeden ski resort.

**Road:** The Ourika road runs along the foot of hilly triassic basalts. In red sandstones of Permian, which form the basis of the essentially fluvial series, which rises to the upper Triassic. Merchants of minerals, fossils and carpets are waiting for tourists.

**Fig.3:** Vertically folded Subatlas series at Tnin Ourika

![Fig.3: Vertically folded Subatlas series at Tnin Ourika](image)

*Source: Geological Guide of the High Atlas of Marrakech*

**Fig.4:** Frictional striations on a dextral tranverse fault in the triassic oukaimden sandstones, south of Tnine Ourika

![Fig.4: Frictional striations on a dextral tranverse fault in the triassic oukaimden sandstones, south of Tnine Ourika](image)

*Source: Geological Guide of The High Atlas*
A ~ 4 km from stop 4, at the "Aghbalou" kilometer, in a large convex turn to NE, the permo-triassic sandstone outcrops may warrant an optional stop. There are current wrinkles and fine friction strings (fig. 4) on a dextre N 160 ° E fault mirror. Approximately 3 km south, we go into the pelitic series of flysch, lower Carboniferous age (Visean) which carries Trias. In Aghbalou, turn right towards Oukaimeden. The road climbs on the flyschs following the valley of a left side tributary of the Ourika, the assif Leqaq, which comes from Oukaimeden.

Stop: Flysch carboniferous
GPS 31 ° 18 ' 37 "N; 7 ° 45 ' 20 "W (alt. 1070 m)

The stop is located at the bridge, 2 km from the Aghbalou crossroad. Flysch shows open flexural folds of NE axis without axial cleavage (figure 5). This lack of any syntectonic metamorphism is typical of the High Atlas of Marrakech, often called the Bloc of Ouzellarh, which connects to the area of the Anti-Atlas, in regard to hercynian tectonics, although located at the N of the South-Atlasic Fault. In this, the Uzbek Bloc contrasts with the old Western Atlas Bloc, which is separated by the Tizi No Test fault (Mattauer et al., 1977; Ouanaimi & Petit, 1992; Michard et al., 2010).

In the High Atlas of Marrakesh, Flysch carboniferous is a date of Viséan-Namurien (Vachard et al., 1991), like that of the Jbilet, but contrary to the latter (successor to Devonian), it lies in discordance on the lower Paleozoic or directly on the Precambrian.

The finely stratified formations of flysch form a ductile level in all this area which allows the removal of the Precambrian basement, cutting into rigid blocks, and plated mesozoic cover (fig. 5). Another level of separation occurs at the roof of the triassic sandstones. Figure 5 presents a schematic view of the tectonic style of the region, with high-hanging faults leading the Precambrian base on the Carboniferous flysch and the Triassic sandstones. It is recognized that these faults derive from the neogenic inversion of the triassic rifting paleo-faults.

Road: The road continues along the Leqaq Valley towards SW. The thick layers of triasic red sandstone dominate the valley or defer flysch to N and south. Several stops are possible to admire the landscape and outcrops of Grès de l'Oukaimeden.
Stop: Zone of High Plateaux; The Triassic of Aghbalou-Iraghf
GPS: 31 ° 17 ' 51 "N; 7 ° 43 ' 59 "W

In this area, the Jbel Tadrart presents a sharp section (figure 6) in the triassic F 4 (Ramuncho silstones) and F 5 (Ukaimeden) formations. The first is predominantly silty with sandstone channel intercalations; the deposit medium is essentially continental, with footprints of vertebrae and paleosols, but with brief marine incursions (traces of sea Lamellibranches; Biron, 1982). The F 5 formation, which constitutes the armature of the highlands, is essentially fluvial, with wind and tidal deposits at the peak (Benaouiss et al., 1996; Fabuel- Perez et al., 2009).

This set of sandstone deposits of the triasic rift is a rigid, almost horizontal block that has simply undergone, as a last resort, a simple vertical translation, by movements on its coastal faults, that of Sidi Fars and that of the Oukaimeden we are going to cross in the locality of Iraghf (Irghaf).

Road: Approximately 500 m further, sandstone channels can be seen in the F 4 formation (optional stop, GPS: 31 ° 17 ' 43 "N; 7 ° 42 ' 58'). Then the itinerary passes through the Oukaimeden fault in Irgaf. This generally opposite fault makes the pre-triassic bedrock very different from the Ourika’s inlier (figure 7).
The inlier of the Ourika:
The inlier of Ourika (figure 7) (Proust, 1961; Ouanaimi, 1983) is a small geological museum dedicated to the oldest triassic land, which has survived through three tributaries (Cha'bat or Chaabat) of Ourika, orients ENE-WSW, along the coastal fault of the Oukaimeden: Cha'bat tighjazrit at SW and the Cha'bat of Tadrart and Tachmacht at NNW. It is one of the few places where it is possible to see the magnitude of the carboniferous movements that have disappeared the whole series from the Middle Cambrian to Devonian in the unstable promontory of Ouzellarh. A second discordance, the post-hercynian discordance, separates the Triassic from the paleozoic and Precambrian substratum. From the village of Iraghaf, the valley plunges into a thick series of massive conglomerates (~ 400 m), first subhorizontal and then a low angle dipping to the NW. For about 2 km, multiple stops are possible, but here we prefer to make a stop at the Ulmès Bridge for the beauty of the site.

(Stop: Lower Cambrian conglomerates (Ulmès Bridge)

GPS: 31°16' 46"N; 7°41' 43"W"

The stop is close to a seasonal waterfall and a high bridge that joins the eastern shore of the Ourika (fig. 8 A). The relatively thick benches are washed and their composition is visible, varying according to the benches, but generally they are Precambrian pebbles or gravels, lavas (rhyolites, andesites, dacites…), quartzites and granitoids (fig. 8 B). There are even carbonate elements that suggest (in addition to the discordance of the conglomerates base) an inferior Cambrian age (Proust 1961).

Fig. 8 A. Massive Cambrian conglomerates at Oualmès footbridge /B. Close view of conglomeratic bed next to the road

Source: Geological Guide of High Atlas

It will be noted that these conglomerates are affected by many small removals northward, reported to hercynian tectonics. The conglomerates are followed by a sort of volcanism which is visible only in the north, near Iraghaf and which is closer to that known more west at the lower Cambrian passage. From our stop spot, the discordance of the base Triassic (F 3), subhorizontal, and cliff-based red triassic (F 3) bases, which are directly transgressive on the Cambrian layers, will be observed.
Road: For at least 3 km, the road passes through Cambrian conglomerates, and the choice is made to make other stops. The outburst of these conglomerates at the level of the oued is stopped by contact with lavas, interpreted as a normal fault in contemporary part of the deposit of conglomerates. Indeed, the thickness of the conglomerates under the average Cambrian is more than 400 m north to the north to forty meters scarcely south. Soon, we arrive at the Precambrian substratum at the level of the outed gaging station, which also became one of the main alarm stations since the dramatic flood in the summer of 1995.

Stop: Normal flaw in PIII washers at Tazzitount station

GPS: 31 ° 16 ' 16. N; 7 ° 41 ' 13.23 "W

This site has double interest, preventative and geological (fig 9), one of the many varieties of rhyolitic lava of Neoproterozoic terminal. These are clear and rubaned threads with a middle-south stain. They are cut by a normal subequatorial rejection. This is the witness of one of the well-represented triassic extensions in the inlier. Higher, in the cliffs the two conglomerates, cambrian and triassic, overlap while they are separated by a major but weakly angular discordance.

Road: For almost 3 km, before the next stop, the road will circulate in essentially rhyolitic and ignimbritic lavas, but dacites and andesites can also be found. This group is very fragmented and is affected mainly by a multitude of small hercynian overlaps identical to those affecting conglomerates. By location, we can see small normal faults, post-overlapping but still imprecise, probably triasic. The volcanism belonging to the Ouarzazate group is very widespread throughout southern Morocco, particularly in the High Atlas of Marrakech, or it has a thickness close to 2,000 m (Proust, 1973). It represents a stage of late pan-african extension (Soulaimani et al., 2003; Aarab et al., 2005; Nefly & Sintubin, 2007).

Near the community of Tazzitount (the Olive Tree), attached to the left side by a cemented bridge this time, a trail goes back in zigzagant, the cambrian conglomerates, here reduced, and a silty set refers to the transgressive formation of the «Shale paradoxe» (medium Cambrian), always covered by the Triassic base conglomerate. The road approaches the turn of Setti Fadma or «Ourika Elbow» and then moves west between gites, habitats and shops. The tar ends at Setti Fadma's parking lot on the north shore of the Ourika.
Stop: Setti Fadma gneissic complex  
GPS: 31° 13' 37"N; 7° 40' 26"W

The tourist site is dominated by the gneiss complex of Ourika (Figure 10). Fresh outcrops are accessible over the seguia (small betting channel) or gneissic gneissical facies and migmatites with basic enclaves are observable.

Fig.10: Two structural sketch maps of the setti Fadma Proterozoic gneiss complex with indication of the foliation trajectories: A. after proust (1973) and B. after nefly 1998 C-C: cross-section showing the dome structure of the complex

They are part of the gneiss complex of elongated ENE-WSW and limited by the major faults of Meltsene to the north different facies of the complex, but there is no doubt that it includes the oldest rocks in the axial zone of the High Atlas of Marrakech. The first age obtained on gneiss was that of "rejuvenation" by nearby granitoids (pink granites of 580 Ma and granodiorite a 610 Ma). The current age estimate of this complex is made by analogy with similar facies of the Tachakoucht region, dates (U-Pb zircon) a ~ 743} 14 Ma for crystallization and ~ 663} 13 Ma for deformation (Chevalier et al., 2000; Gresse et al., 2000)

In the new subdivisions, the complex would be equivalent to the formation of Iriri (Bleida Group). The establishment of the complex is linked to the pan-African range, either in a sheer context connected to the FOT (Raji 1988) or as a diapiric dome in the context of late pan-African expansion (Nefly, 1998, Nefly & Sintubin, 2007).

3. Contribution to knowledge the biodiversity in the Ourika's Valley:  
The High Atlas is the main outbreak of endemism at the national level, the number of endemic species in the High Atlas is 425, because high North African
altitudes were refuges during Quaternary glaciations. The High Atlas (precisely the High Atlas of Toubkal) also has great floristic significance with 250 endemic and rare species in Morocco. Toubkal National Park is of great ecological and landscape value where it houses high summits in North Africa (Toubkal with 4,167 m altitude). It is a site rich in fungal flora, especially at the jbel Tizrag. The park is very rich in Moroccan endemic, about 58 species and subspecies, of which 16 are special at the site. The fauna of Toubkal National Park that is located between Al Haouz Province and Taroudant is characterized by the presence of a large population of sheep (Ammotragus lervia), about 400 animals, concentrated on the Takherkhort reserve. The most southerly population of monkeys is located in Upper Ourika. The park also includes rare mammals (in addition to the headscarf, the wild cat, the cutoff...).

Flora and Fauna:

**Flora:**

This protected area offers a unique and diverse flora: In this way, we can meet the stands of Green Oak and Cedar trees, ecosystems in Red and _Thuriferous Juniper_, but also the thorny xerophytes in cushions and very beautiful moist grasslands characteristics of the High Atlas. In addition, the Toubkal National Park contains nearly 24 species that are strictly endemic to the area. According to (Ouhammou, 1982), the main plant formations found at the Ourika’s watershed, presented from downstream to upstream, are as follows:

- “Tetraclinaie” (_Tetraclinis articulata_) associated with “Juniperaies” (_Juniperus phoenicea L_) and oak trees at _Quercus rotundifolia Lam_.
- “Juniperaie” at _Juniperus phoenicea L_. in internal areas;

- _Retama dasycarpa Coss. and Adenocarpus anagyrofolius_ replacing the _phenicia juniper_ upstream of the internal valleys.

- _Quercus rotundifolia Lam_ covers the upper upstream, ocean spacing of the first permo-triassic unit and a few northern slopes of the internal domains.

- _Thuriferaie (_Juniperus thurifera L_) is mainly present in the upper inner valleys. Its scarcity and even its absence are noted on the north side of the landforms of the ocean escarpment. Green oak forms the tree limit at this level.

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5 SEAU GLOBAL. Etude d’évaluation intégrée de l’environnement pour la région de Marrakech Tensift Al Haouz. Direction Régionale de l’Environnement et de développement durable Marrakech-Safi P 54
6 SEAU GLOBAL. Etude d’évaluation intégrée de l’environnement pour la région de Marrakech Tensift Al Haouz. Direction Régionale de l’Environnement et de développement durable Marrakech-Safi P 51
Spiny xerophyte formations and altitude grasslands characterize the domain of high mountains. Alyssum is the xerophyte which covers the largest area, extending from 2050 m to 3600 m. It is dominant on the north sides (Ilmen, 2004).

Other species found in other formations are as follows:

- The carob (Ceratonia siliqua L.);
- Wild olive tree (Olea europaea subsp. europaea var sylvestris (L.) (Mill.) Lehr) is found in isolated feet or in bouquets mainly on hot slopes;
- Undergrowth species consist of mastic trees (Pistacia lentiscus L.), (Phillyrea spp.) and (Cistus spp.) A natural riparian vegetation consisting of: angustifolia (Fraxinus angustifolia Vahl), white poplars (Populus alba L.) and black (Populus nigra L.), acute willow (Salix atrocinerea Brot.) (Affo Biao, 2015; Ilmen, 2004). This floristic and ecosystem diversity has resulted in a very diverse fauna at the “PNT” level, a park that is distinguished primarily by the presence of North Africa's largest population of barbary sheep (Ammutragus lervia).

Wildlife: As for the very rich nesting avian fauna, it consists of nearly 95 species, with remarkable birds such as the Royal Eagle, the Beared vulture, the Alpine Accentor or the Rose-Wing Bullfinch.

Herpetfauna is also directly part of the biological values of “PNT”, with high endemism, and some very rare or endemic species such as the Schokar Snake or the Atlas Viper. The presence of 9 species of endemic butterflies in the park or in
the High Atlas, such as the Copper-coloured one of the Atlas.
From the ornithological angle, some 95 species of birds are breeding, including the rare white back (Apus caffer). Several species of raptors are threatened or in danger (royal eagle, beared vulture, the booted eagle, bony eagle, ciraet, peregrine falcon...) 30 species of reptiles (Psammophis Schokari, Atlas's lizard, Adreansky lizard, eyelid gecko) as well as many invertebrates.

PART III: GEOTOURISTIC VALORIZATIONS OF ORIKA'S VALLEY NATURAL HERITAGE

Our study on geological, geomorphological and environmental heritage in Ourika’s Valley aims to:

- Establish a series of media documents and tools available to the general public;
- To develop the tourist attraction for Ourika’s Valley;
- Offer free walking circuits to follow for walkers or being accompanied by guides
- To value geological, geomorphological and environmental development activities of the study region;
- Offer documents that are in several languages.

Following our inventory of the natural heritage elements in our study area, it is possible to propose several types of actions and enhancement documents:

**ACTION 1: RESTORATION OF AN INTERPRETIVE TRAIL "SIGNS ILLUSTRATING OUTSTANDING POINTS"**

"Interpretation is a communication approach designed to reveal to the public the meaning of our natural and cultural heritage in direct contact with monuments, sites or landscapes " (Peart and Wood, 1976, Canada)

The common objective of any interpretive process is to allow visitors to better understand the meaning and value of a site, while adding in it the pleasure. The principle is to make visitors discover/feel the attraction of a site based on a scenario and a theme.

**ACTION 2: POSTERS OF PRESENTATION**

Poster or series of posters for presentation of geological, geomorphological and environmental context to walkers and hikers. It is also possible to set up some animated days as an itinerary with some stops explained by an expert.

**ACTION 3: CREATION OF AN EXHIBITION**

Realization of an exhibition with posters, «land formations» models, games on the theme of "Geological, geomorphological and environmental heritage of Ourika’s Valley" to be put in place in a public space «for example»

**ACTION 4: ITINERARIES/CIRCUITS**

Set up itineraries or circuits - cars, bikes -raising the questions about the geological and geomorphological heritage of Ourika’s Valley "Circuits to all types of public".

**ACTION 5: USE OF VISUAL MEDIA**

Use of visual media (digital model) during a guided tour on Ourika’s Valley geomorphosites. Digital media, by its variety, have special links to let us be closer to reality. Portable digital
devices (personal assistant, mobile phone) linked to GPS directly link information presented to the user's position (Dias, 2007).  

**ACTION 6: ORGANISATION OF CONFERENCES AND MEETINGS**
Conferences on geological, geomorphological and environmental heritage, on geological history and abundance, themes refocused on the study area and its surroundings.

**CONCLUSION:**
Heritage protection cannot be limited to its physical and natural components alone. At the same time, there is a heritage that is the work of man, consisting of material elements (architectural, monumental, historical, archeological, etc.) as well as intangible (traditions, practices, rites, know-how, etc.), whose protection, in the face of destructive and destabilizing impacts of modern life, proves to be all, as important as the demands of sustainable sustainable development. The region is rich in the diversity of its natural environments, its ecosystems, contrasted and typical. It is a mosaic of landscapes, where there are plains and plateaus, lakes and forests, large and vineyards. This fragile heritage is subject to protection, prevention and recovery measures. The attractiveness of this valley is due to its geological, geomorphological and cultural heritage, being an area with many resources for visitors, tourists and especially for its inhabitants. Due to the state of degradation and the lack of infrastructure at the level of the area, the latter remains a minor factor in the choice of tourist destination. As a result, its development and improvement could help to enhance its image among visitors.

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