

EMERGENCY • EMERGENCY • EMERGENCY •

GOLD TRIANGLE OF THE PÉRIGORD NOIR

MAJOR THREAT

TO THE HEART OF THE DORDOGNE BIOSPHERE RESERVE

To the attention of:

Mr Qunli HAN,

Director of UNESCO Division of Ecological
and Earth Sciences
Secretary of the MaB Programme.

Mr Didier BABIN,

President of the MaB-France Programme
President of the MaB International Coordination Council.

And Experts,

Members of the MaB International Advisory Committee.



“ *...Improve human environment.
Preserve natural ecosystems.* ”

The Programme “Man and Biosphere” (MaB) has been launched in early 1970’s by the UNESCO to gather scientific evidence in order to improve relationships between People and Environment.

What is a **Biosphere Reserve**?

The MaB Programme seeks innovative ways

to promote a development in harmony and in respect of the social, cultural and ecological values. It aims at striking a balance between different requirements, sometimes in conflict with each other: preserve the biodiversity, promote economic development and protect cultural values.

Biosphere Reserves are sites committed to this global objective. It is not a legal duty, but a label rewarding sites for their environmental quality.

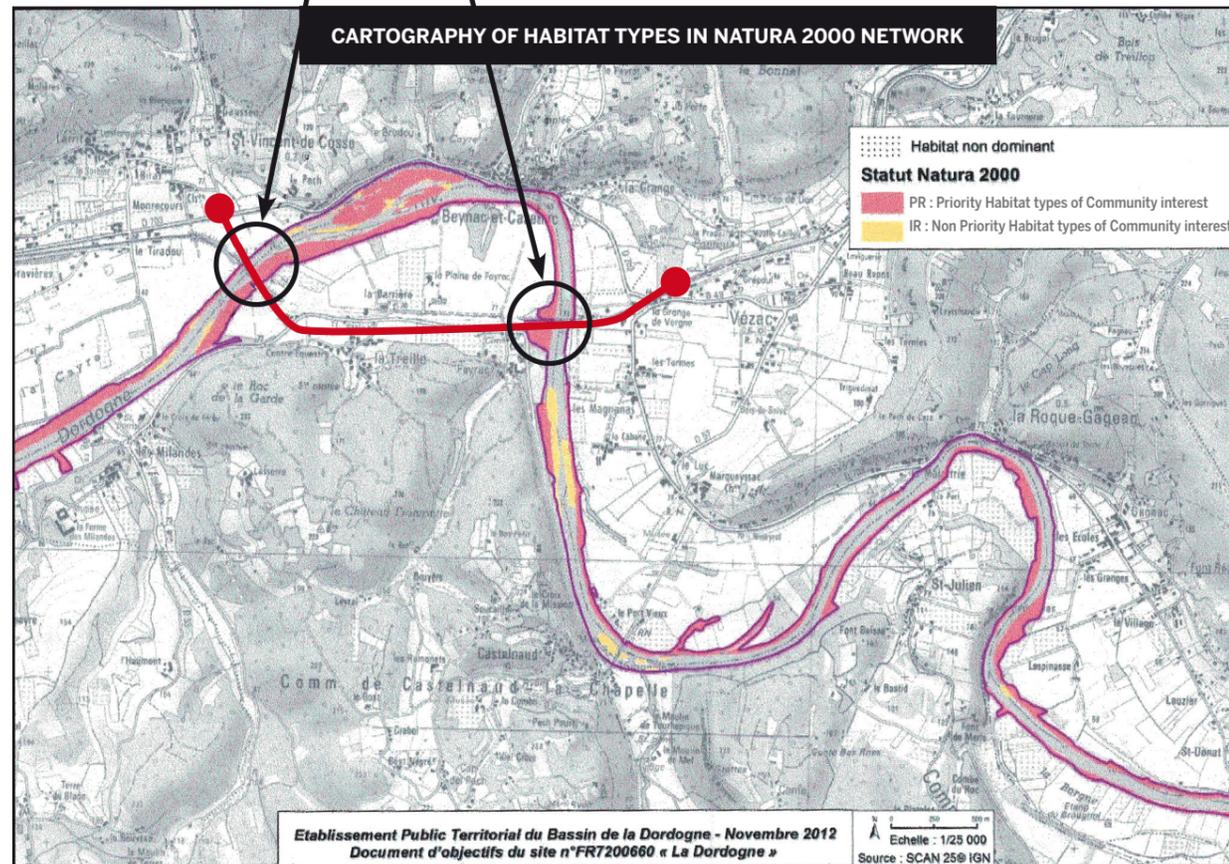
This label is an incentive to promote sustainable development in areas of high ecological interest.

MaB Programme combines inputs from different strands of science to protect human environment and preserve natural ecosystems.

The Biosphere Reserves (669 in the World) are under the sovereign jurisdiction of the concerned States (120), and their promoters can share good ideas and good practices through a worldwide network based at the UNESCO, in Paris. ■



Two areas of Natural Habitat types of Community interest



 Areas of main impact due to the bypass projet.

The Biosphere Reserve of the Dordogne Basin

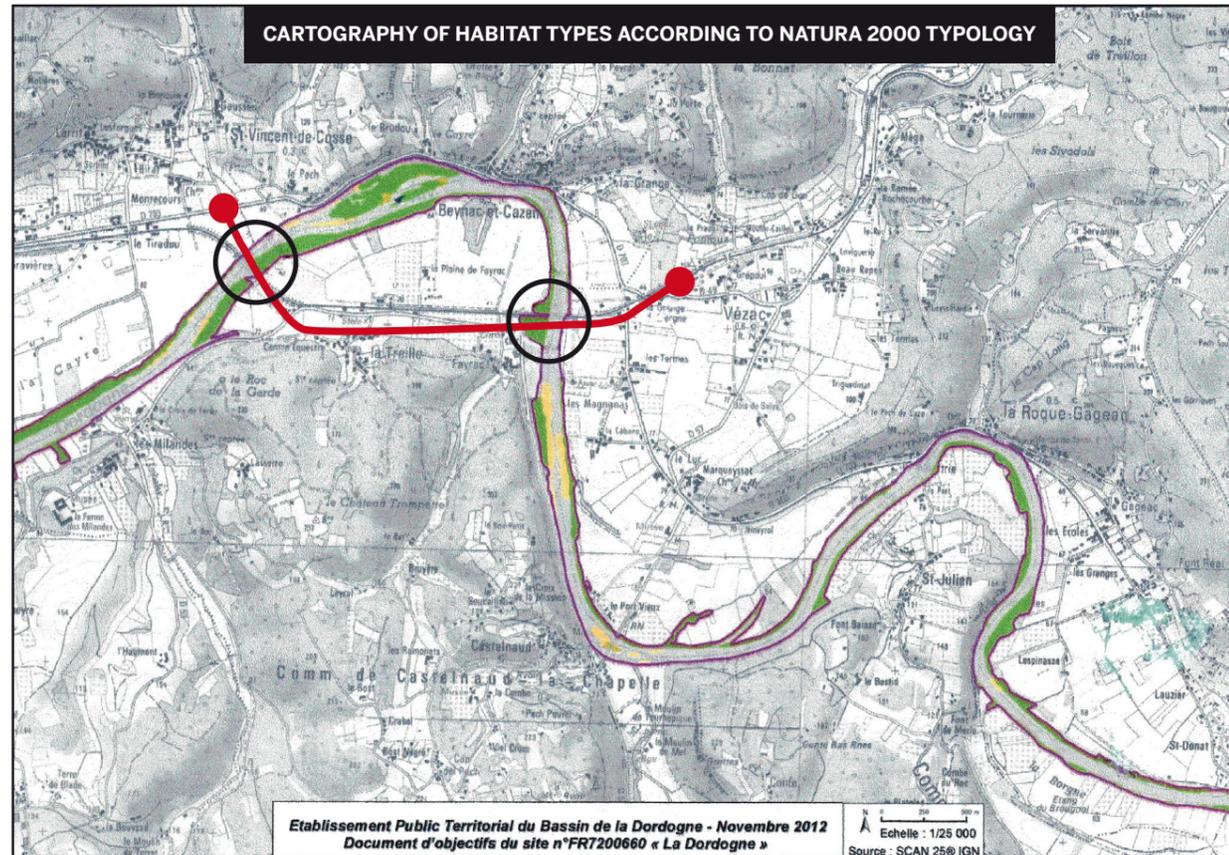
Mrs Meriem Bouamrane, in charge of the UNESCO MaB Programme, came in Bergerac in 2012 to award the Biosphere Reserve label during the Dordogne General Assembly.

The Dordogne Biosphere Reserve, the most important of France, is truly unique in the world, as it integrates a whole hydrographic basin.

Characteristics of the Dordogne Biosphere Reserve:

- 1,451 municipalities
- 1,3 millions inhabitants
- 24,000 km²
- 3 Regions
- 9 Departments

The Reserve includes the whole hydrographic basin, with the Dordogne River as core area. ■



The great natural assets of the Dordogne Biosphere Reserve

The MaB Programme and the Natura 2000 sites are linked. Beynac area belongs to both, which increases its value at European and international levels. The CORINE* data have been most useful for zoning the Biosphere Reserve.

The Dordogne Basin has about 56 natural habitats of Community interest — EU Directives**— representing 8% of the territory. Among them, 11 habitats are defined as “priority”, because they are in danger of disappearance. The European Union has the responsibility to preserve them. Some of these habitats are emblematic for the management of water and aquatic environments. Moreover, some of them are endemic habitats in the Dordogne Basin. ■

-  Ripisylve or riparian forest with Black alder (*Alnus glutinosa*) and Ash excelsior (*Fraxinus excelsior*)
-  Vegetation composed of *Ranunculus fluitans* and *Callitriche-batrachion*.
-  Road alignment of the bypass project.
-  Areas of main impact of the bypass projet, (Core Area of the Biosphere reserve and Natura 2000 site).

*“CORINE” stands for Coordination et Recherche de l’Information en Environnement (Coordination and Research of Information on Environment). In CORINE Biotope, data refer to the typology of natural habitats and semi-natural habitats (agricultural landscapes, etc.)

** The EU Birds Directive (1979) and Habitats Directive (1992) underpin the creation of the European Network Natura 2000.



Red kite (*Milvus milvus*)



European sturgeon (*Acipenser sturio*)

Fishes in the Dordogne River

The Dordogne River singles out with its remarkable diversity of fishes, with 39 referenced species. It is also the very last refuge for all the “sea-river” migratory fishes, including European sturgeon (*Acipenser sturio*), allis shad (*Alosa alosa*), twaite shad (*Alosa agone*), eel (*Anguilla anguilla*), river lamprey (*Lampetra fluviatilis*), marine lamprey (*Petromyzon marinus*), Atlantic salmon (*Salmo salar*), and sea trout (*Salmo trutta trutta*).

These migratory fishes shape the identity of the River, with numerous other sedentary species which contribute to its richness. Among these species, 18 are targeted in national or international regulations.

Birds

The great diversity of birds is due to the quality of the water and the variety of environments, as well as to the numerous invertebrates, which are an important source of feeding. Short-toed snake eagle (*Circaetus gallicus*), osprey (*Pandion haliaetus*), kingfisher (*Alcedo atthis*), grey heron (*Ardea cinerea*), eagle owl (*Bubo bubo*), white-throated dipper (*Cinclus cinclus*), black stork (*Ciconia nigra*), sand martin (*Riparia riparia*), and little ringed plover (*Charadrius dubuis*) live around the River and its core area between Argentat and Bergerac.



European otter (*Lutra lutra*).



Otter on the river bank (picture taken near Vezac, from the Vezac municipal bulletin, Spring 2016).



Floating water-plantain (*Luronium natans*).



Reptiles, amphibians, flora, and habitats

The Dordogne Basin has several habitats of Community interest (Habitats Directive and CORINE Classification), with floating water-plantain (*Luronium natans*), officinal gratiola (*Gratiola officinalis*), summer snowflake (*Leucojum aestivum*), pulicaria (*Pulicaria vulgaris*), and Roman squill (*Bellevalia romana*) to name just a few.

Specific wildlife species

The double ecological corridor made up by the Dordogne river and its forest gallery is of uttermost importance for the wildlife, and above all for some protected species, including the European otter (*Lutra lutra*). Evidence (pictures and faeces) demonstrates that there are otters around Beynac, both downstream and upstream. Both otters' populations have started to join, resulting in a genetic mixing beneficial to the survival of the species, and should continue shouldn't large infrastructure projects, like the most harmful Beynac bypass, impede it. ■



Historic monuments
and timeless
landscapes went
through centuries
keeping their
soul until now.

River landscapes around Beynac

From Grolejac to Beynac, the Dordogne River offers its great majestic meanders, one of the most emblematic landscapes of the Valley.

The landscapes were shaped both by the River and Man. Human presence and activity are attested in various areas since a very long time. Hills are covered by deep forests, with oaks (*Quercus*) and chestnut trees (*Castanea sativa*). The holm oak (*Quercus ilex*) is the dominant species on the sunny hillsides.

In the Middle Ages, there were villages with troglodytic habitats on the cliffs. The slopes and the upper terraces of the Valley come from the breakdown of cretaceous limestone, and there are traces of the ancient vineyards from the Middle Ages until the 19th century (Phylloxera crisis). The alluvial plain is used for agricultural activities: mixed crops, cereals and walnuts (*Juglans regia*). The River is used for navigation and sailing.

The landscape patterns have not radically changed, except for the field crops (maize and wheat) with, at some places, market gardening (strawberry, asparagus, etc.) in open field, and the traffic of gabarres and canoes on the River.

The castles of Castelnaud and Beynac are remarkable observatories, with the exceptional scenery they offer on the Valley. ■



Below Beynac, the Dordogne River flows with nonchalance but continues to shape the landscape.

The Biosphere Reserve in the Dordogne Basin

As all Biosphere Reserves, the Dordogne Valley is composed of 3 areas:

- The core area is strictly protected for the conservation of the landscapes, ecosystems, and species.
- The buffer area surrounds the core area, and activities with sound ecological practices are allowed.
- The transition area is the part of the Reserve where many activities are allowed to foster economic and human development, but in a socio-culturally and ecologically sustainable way.

Our Dordogne Biosphere Reserve is very specific:

- The core area is of prime ecological interest: it is the Dordogne River itself, limited to its bed and banks, from Argental to Bergerac.
- The buffer area, which strengthens the protection of the core area, is the flood plain of the River.
- The transition area is very large and covers the whole hydrographic basin (the Dordogne River and its affluents), i.e. 24,000 km². ■



A bypass road in the Core Area of the Biosphere Reserve: how compatible with the MaB principles?

The Dordogne Department Council wants to build a new road to bypass the village of Beynac.

This project implies:

- Transforming a touristic road (D703) in a main road to ease traffic in summer;
- Building a new road of 3.5 km, with two bridges on the River, one railway tunnel, several roundabouts and one left turn;
- Building a parallel road to Castelnaud and Les Milandes.

In the middle of a Biosphere Reserve?

The projected road, "Voie de la Vallée", with the Beynac bypass, would leave a deep and indelible scar in the landscape and would have strong negative impacts on the Reserve's ecosystems, because it would cross not only the buffer zone but also the core area with two bridges.

At the same time, in Beynac, works engaged to widen the road in order to ease traffic are almost finished: vans and trucks will have wider lanes, pedestrians will walk on secure zones and the village will be even more beautiful. ■



Negative impacts of the Beynac bypass

Before launching their project, the promoters must consider the ecological sensitivity of this part of the Dordogne Valley, comply with all existing environmental regulations and obtain all administrative authorizations.

The environmental approach is a three-steps process known as "Avoid-Limit-Compensate"* according to the Biodiversity and Water Laws:

1. Avoid negative impacts;
2. Limit negative impacts, if they are unavoidable;
3. Compensate for negative impacts if there is no other solution.

Impacts on the ecological corridors and wetlands

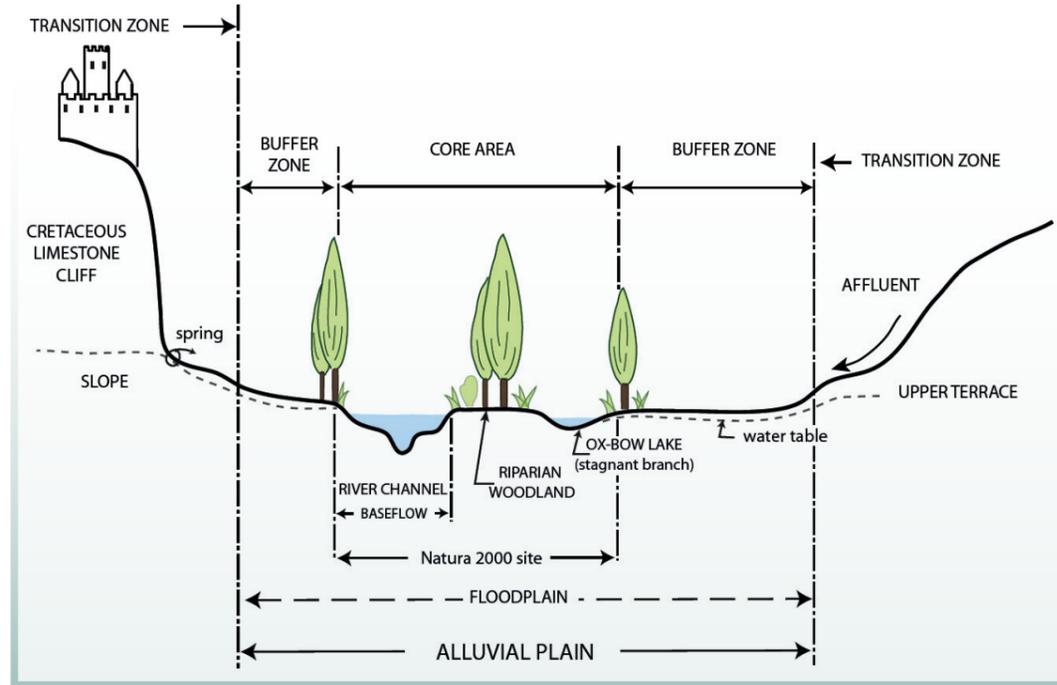
The first step of the planned works is to clear the river banks, i.e. to destroy riparian woodlands which are mainly composed of ash trees and willows. These areas are very important ecological corridors between aquatic and land environments and ensure continuity between Natura 2000 sites.

The riverine habitats are very sensitive, as they are spawning and breeding grounds for many species of birds and fishes and mammals such as the otter. The vernacular and Latin name of the species are listed supra. A lot of them are present in these wetlands on the stagnant branches of the river or ox-bow lakes. The project threatens all of them.

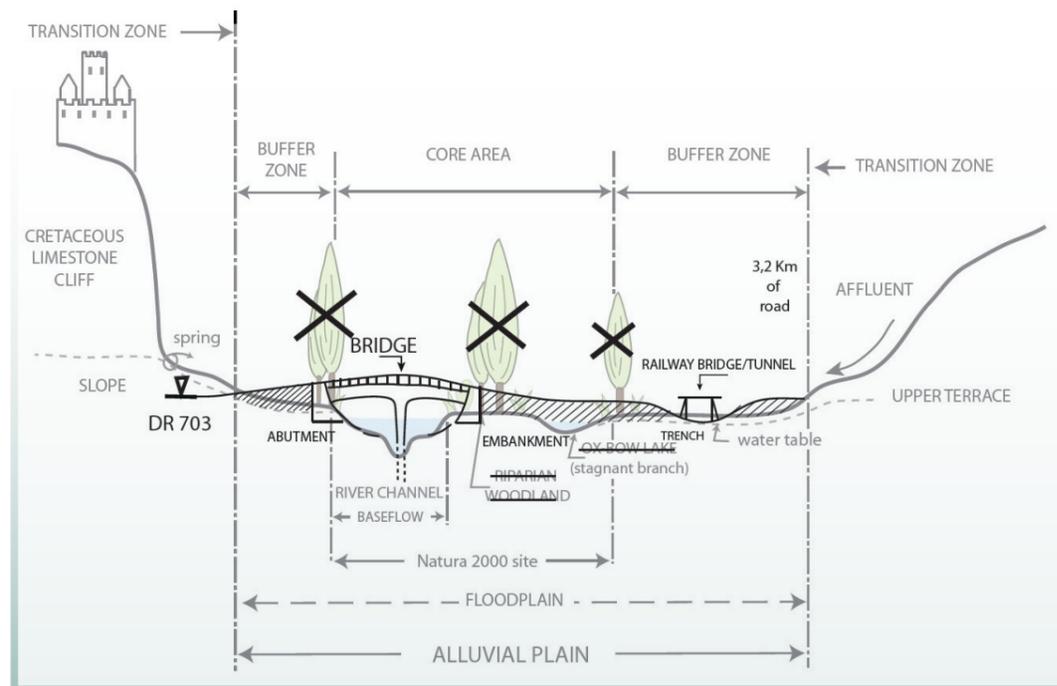
* This principle "Avoid-Limit-Compensate" has been strengthened for all the land use planning projects by the new Law on Biodiversity (2016/08/08)..



DORDOGNE VALLEY BIO/GEOMORPHOLOGICAL CROSS-SECTION BIOSPHERE-RESERVE (MAB)



DORDOGNE VALLEY BIO/GEOMORPHOLOGICAL CROSS-SECTION BIOSPHERE-RESERVE (MAB)



Impacts on agricultural lands

The second most important impact is the loss of agricultural lands, to be used to build the road. Large areas of rich agricultural land would disappear or lose their fertility.

The road embankments would become permanent barriers blocking ecological corridors, and any further ecological connections.

Pollution from works

The projected works imply extracting resources, excavating and building embankments, resulting in a huge traffic of heavy trucks, with all harmful effects related to dust and noise during several months.

The construction of the bridge piers and abutments, the foundation works and the injection of concrete in the river bed are also source of important pollutions due to operational leaks which would destroy aquatic ecosystems and habitats protected under the Core Area standards.

Impact on water* and aquatic environments

This project would destroy exceptional ecological environments. Hydraulic and hydrological phenomena would generate strong currents between the piers of the bridges, and also some erosion problems along the bridge abutments and the river banks. These phenomena would have a direct impact on aquatic and riparian habitats.

* Under the EU Water Framework Directive and the French Law on water, protecting water quality (surface water and groundwater) is a top priority to ensure good quality of water according to affectation (drinking water, irrigation, agroindustry, fishing and bathing).



Impact on groundwater*

The water table in the flood plain is closely tied to the Dordogne River and local ground waters (replenishing and supplying processes). This alluvial aquifer would be strongly impacted in case of pollution by oil, chemicals or other dangerous substances (spillage in case of truck accident), particularly in the tunnel section of the road.

Through underground channels or drainage systems, these aquifers can also be in close relationships with karst areas which are very sensitive to pollution.

Impacts on landscape

The bypass road would be visible from most of the promontories and other sight-seeing points in the landscape: from the castles of Beynac, Marqueyssac, Castelnaud, Lacoste, Fayrac, and Les Milandes, and also from sites such as Le Roc de la Garde, Le Pech, La Croix de St-Vincent de Cosse, La Treille, etc. The project would ruin the harmonious balance between this magnificent scenery and traditional human activities — mainly agriculture — which is the foundation of the Biosphere Reserve label for the Dordogne Valley.

With their concrete structure, the bridges would gash a millenary landscape around Beynac, and the view on the aquatic scenery would be deeply impacted, as large portions of the wooded river banks would be destroyed.

The projected bypass road is very close to the old railway, but this is not enough to claim that its physical and ecological impacts are moderate. This railway was built in 1885, in the socio-economical context of that time, and has become, with its old stone bridges, a real work of art. With about only a dozen trains a day, its environmental impact has proven to be minor, and, unlike a high-speed road, it is not a real barrier for the ecological connections as it does not prevent animals to move around the river. Nothing to compare with the huge traffic the road project would imply (see infra).

Geotechnical hazards and consequences

Building piers just upstream from the railway bridges would create vortex effects and whirlpools which would undermine foundations of these railway bridges, as they were not designed to support such phenomena.

Vulnerability to climate change

The fact that the projected road is designed to go through a tunnel under the existing railway on the La Treille side (located in the flood plain) would require excavation and a road section with an open trench profile.

Because of its design and its location in the Dordogne flood plain, this tunnel would be particularly vulnerable to climate change, and it would be flooded in case of violent thunderstorms and heavy rains. ■



Noise nuisances

If the bypass project and its high-speed road is adopted, many trucks in transit in the Department would prefer to use this express lane in place of the toll motorway A89.

And what about the noise generated by the traffic of trucks and motor bikes riding at 90 km/h, instead of 30 km/h, in Beynac.

The noise reverberating on the calcareous cliffs would deeply disturb people and would be most stressful for several species of birds including eagle owl, wild ducks and swans.

Impact on traffic jams

In Beynac, traffic jams are due to the fact that the road is too narrow for tourist buses or camper vans, and the problem is about to be solved with the widening of the lanes under way.

Various traffic counts have been carried out and confirm traffic peaks in summer. In 2015, PCR Mesure & Analyse made a first count in Beynac during one week in August, the month with highest traffic: 9.500 vehicles were recorded per day in average (in both directions). The table* below shows the daily averages:

Light vehicles	8.850 (i.e. 93% of tourists)
Light commercial vehicles	210
Trucks	90
Camper vans	300
Buses	50

* Excerpt from the Beynac Municipal Bulletin *La Lanterne* no 8, July 2016.

The main conclusions of this study are as follows:

- Traffic is blocked during short periods of time due to the fact that lanes are too narrow for trucks, buses or camper vans to cross.
- Between 4 or 5 pm and 7 pm, flux of vehicles is continuous, inducing traffic jams.

A new count has been done recently at the request of the Departmental Council, but the results have not yet been released.

The Beynac bypass project could reduce the traffic jams in summer, but wouldn't eradicate them completely. It would not prevent tourists to cross the village and go up to the castle. And the bottlenecks would move just a little further towards Sarlat.

Moreover, the projected road would often be closed as the tunnel under the existing railway would most probably be flooded in case of heavy rains (see supra).

Risk of accidental pollution

The projected road would increase the risk of car and truck accidents, especially in a valley where morning fogs are frequent and particularly thick. The risk of spillage of hazardous products and engine leaks is quite real.

As explained supra, the risks on aquatic environments and aquifers are extremely high.

Impact on local economy

The destruction of the exceptional environment at the heart of the Biosphere Reserve, around the Dordogne Valley and its millennial landscape, would reduce the touristic value of the Gold Triangle. The bypass road would severely impact the economic activity in Beynac, particularly during the off-season.



“ ...*Improve human environment.
Preserve natural ecosystems.* ”

Conclusion and proposal

Evidence detailed above demonstrates that the technical, social, and economical interest of the Beynac bypass road project is very low.

Considering all the standards applicable to the Core and Buffer Areas, such a project is not compatible with the goals and the management of the Dordogne Biosphere Reserve.

We are convinced that the bypass project would be useless, as traffic counts confirm, AND devastating for the landscapes and the environment, not to mention its excessive cost.

We call for a two-year moratorium to ascertain that the wider lanes made in Beynac (for a final cost of less than 10% of the bypass project) are efficient. ■

Feb 16th 2017

