

Biodiversity policy, strategy and Action Plan (BAP)

Macro Tasks to be developed

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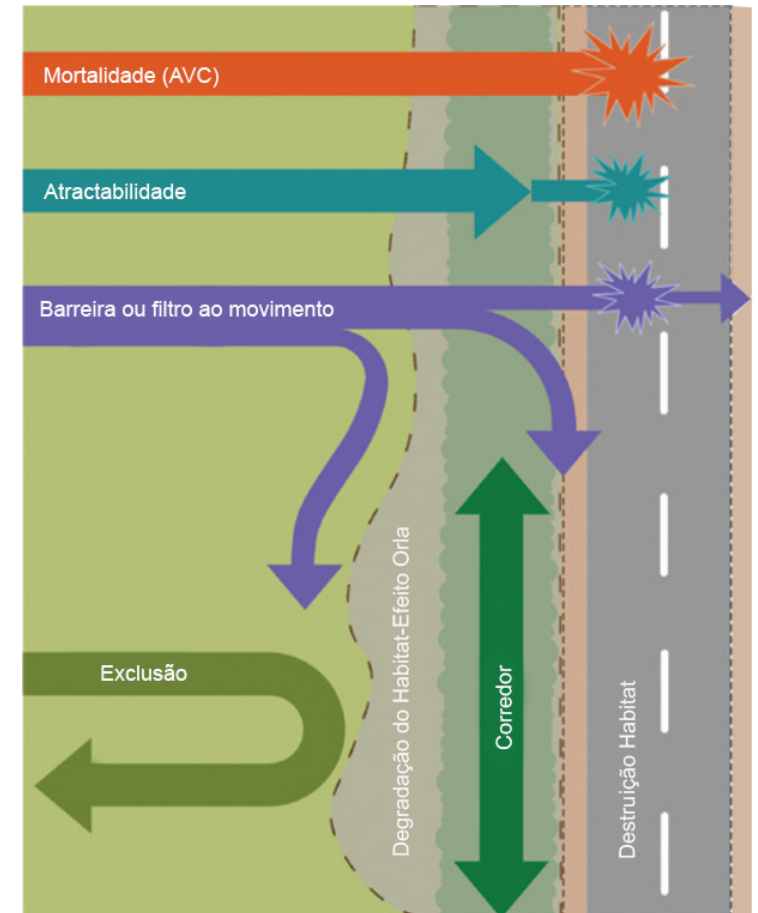
/ Ascendi, as a Road Networks concessionaire, plays an essential role in the intervention and change in ecosystems, for which reason we assume as a priority the commitment to sustainable resource use, **ecological transition and Biodiversity protection** in the network we operate

/ With Ascendi's Biodiversity Action Plan (BAP), we intend to act on the three strategic pillars that we have defined, based on our policy and to comply with legal and voluntary commitments assumed, e.g. GRESB, or BCSD.

Our main objectives are to: characterise/inventory, set targets, communicate, implement measures and analyse results

Scope - 5 concessions + 1 Sub-concession

BAP timeline - 2022 to 2026 (six-monthly review and evaluation)



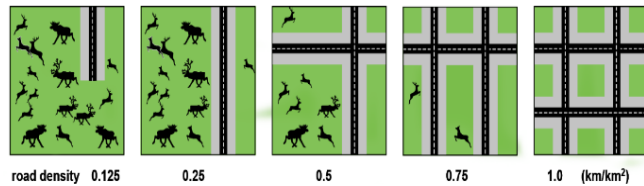
Main Impacts:

Deaths by
vehicle collisions



- / Major Cause of Wildlife Death
- / Risk to Road safety

Habitat
Fragmentation



- / One of the main causes of Biodiversity loss
- / Compromising ecosystem services
- / Population decline and habitat destruction

Exotic dispersion
vector



- / Roads and roadsides act as pathways to dispersal
- / One of the greatest threats to Biodiversity Loss

3.1- Information Collection, Systematic Monitoring

3.2 - Communication, Collaboration Awareness-raising

3.3 – Biodiversity Conservation

3.3.1 - Mortality Mitigation

3.3.2 - Fragmentation, Ecological Restoration, Corridor Replacement

3.3.3 - Exotic Species' Control, Flora Communities' Management



The strategy is based on monitorisation and analysis, communication and finally taking action to conserve Biodiversity. We consider it a priority to establish a sampling grid in the infrastructure. Only with a systematic collection of data will we be able to act in concert with our objectives.

Communication and awareness-raising is the Second pillar, we intend to be an agent for changing citizens' behaviour and producing knowledge for the community.

Finally, the last Pillar, to act and conserve Biodiversity and ecosystems, reverse the trend of decline and promote the preservation of the natural environment



SYSTEMATIC MONITORING

- Deaths by vehicle collisions
- Permeability - Fauna Crossings
- Species and Habitats Ascendi Network
- Dispersal of Exotic Species

DATA PROCESSING

- Definition of Mortality Hotspots, Mortality Space-time Patterns. Detection of Ecogeographical Variables that influence Mortality.
- Crossing Indices, modelling ecological corridors
- GIS integration of existing Biodiversity in the Ascendi network.
- Mapping of Exotic Species, Dispersion Models.

DEFINITION OF MEASURES



COMMUNICATION (INTERNAL | EXTERNAL)

- Publication of Internal Biodiversity Policy, inclusion of Biodiversity in internal processes.
- Consultation of Stakeholders
- Subscription to Voluntary Principles and Standards for Biodiversity and Sustainability
- Involvement of the Whole Organisation in the commitment to protect the environment and preserve Biodiversity,
- Publication and Dissemination of results of the application of minimisation measures - Sharing of acquired knowledge

COLLABORATION

- Establish partnerships with Academic and Scientific Research organisations.
- Collaborate with Schools in the Ascendi Network to Educate for Biodiversity
- Develop protocols with NGOs to support environmental conservation actions within the Ascendi network.
- Collaboration with Strategic Players in Biodiversity Conservation and Education

AWARENESS-RAISING

- Dissemination and awareness campaigns,
- Social networks,
- Training Actions,
- Volunteering Days.



Mortality Mitigation





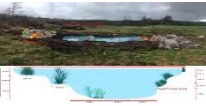



- Development and implementation of measures to mitigate or reduce animal mortality:
 - Increased impermeability of the fencing, creation of fauna routing beacons.

Fragmentation, Ecological Restoration, Corridor Replacement.

- Network symbiosis in the Natural environment - More ecological and sustainable Roads

Exotic Species' Control, Flora Communities' Management.

- Methodology Optimisation:
 - ✓ Maximisation of results;
 - ✓ Decrease in effort,
 - ✓ Integration into plant maintenance work.

Macro Tasks	Specific Measure	
3.1 -Collection of Information Systematic monitoring QAS - DOM - DSI	Automatic collection and identification system - UP Partnerships	
	Monitoring of existing crossings, quantification of the crossing rate.	
3.2 - Communication, Collaboration and Awareness-raising QAS - GM - DOM	Biodiversity Programme at Ascendi (5 Programmes on Mondays in May)	
	Ascendi Biodiversity Competition (Initiative with the school community in the municipalities covered by the Network)	
3.3.1 - Mitigation of Mortality QAS - DOM	Headlight Deflectors - minimising collisions with ungulate animals and Nocturnal Birds of Prey	
	Reinforcement of the Impermeability of the Fencing to the passage of Fauna Fauna Routing	
3.3.2 - Fragmentation, Ecological Restoration and Replacement of corridors QAS - DOM	Ecological restoration and creation of microhabitats, installation of shelter boxes for bats, nest boxes for passerines, etc.	
	Protection of Pollinators, following several directives namely the Initiative EU: EU Pollinators Initiative	
3.3.3 . - Control of Species Exotic species, Management of Flora Communities QAS - DOM	Promote the rapid re-vegetation of each site following sources of disturbance or actions to control exotic flora.	
	Reversing the paradigm - transforming roads into vectors for the propagation of native and protected flora	



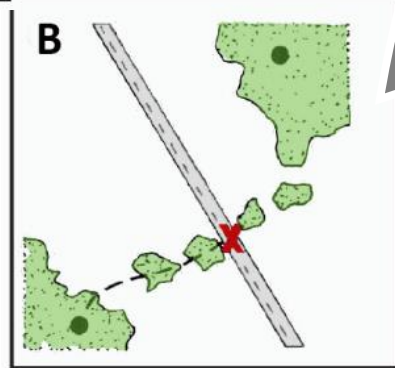
IDENTIFYING ECOLOGICAL CORRIDORS



- ▲ Determination of the main fauna dispersal corridors, particularly in the case of species with conservation status, e.g. Iberian wolf.
- ▲ Continuous monitoring of wildlife Crossings and passages,
- ▲ GIS study of the most relevant ecogeographical variables for the meta-population dynamics,
- ▲ **Fulfilment of assumed objectives, BCSD, GRESB – Development of Specific Management Measures, and Habitat restoration.**



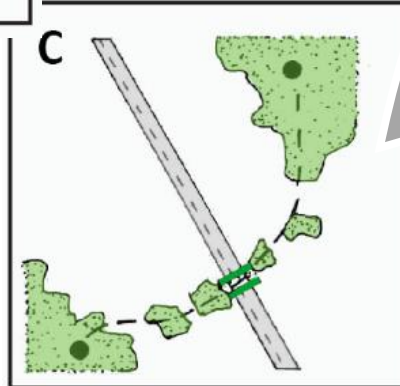
DEFINING MITIGATION MEASURES



- ▲ Reduce fragmentation and its effects, re-establishing corridors.
- ▲ Adaptation of crossings, ecological restoration of habitats reduction of human footprint and improvement of ecosystem resilience.







REDUCING FRAGMENTATION





- ▲ Continuous monitoring of the route's permeability
- ▲ Evaluation of the effectiveness of the measures, their constant adaptation to the evolution of the ecosystems adjacent to the roads





COLLABORATION WITH PLANT MAINTENANCE TEAMS

-  Scientific support on the ecology of each species
-  Definition of control and eradication methods adapted to each location, species and invaded area
-  Optimise the use of phytopharmaceuticals, where applicable, preferably by mechanical methods
-  **Compliance with assumed objectives, BCSD, GRESB – Habitat Restoration, increased composting practices.**

ACTIVE RE-VEGETATION AFTER ERADICATION

-  Promote re-vegetation with autochthonous flora and development of communities of autochthonous flora, in order to promote interspecific competition and prevent colonisation by exotic flora
-  Development of sowing plans, hydro-sowing, planting and natural engineering techniques

REVERSING THE TREND

-  Creation of seed banks of native species characteristic of each region
-  Rapid capacity to act after disturbances to natural communities, with the availability of greater control over floristic communities

THANK YOU

