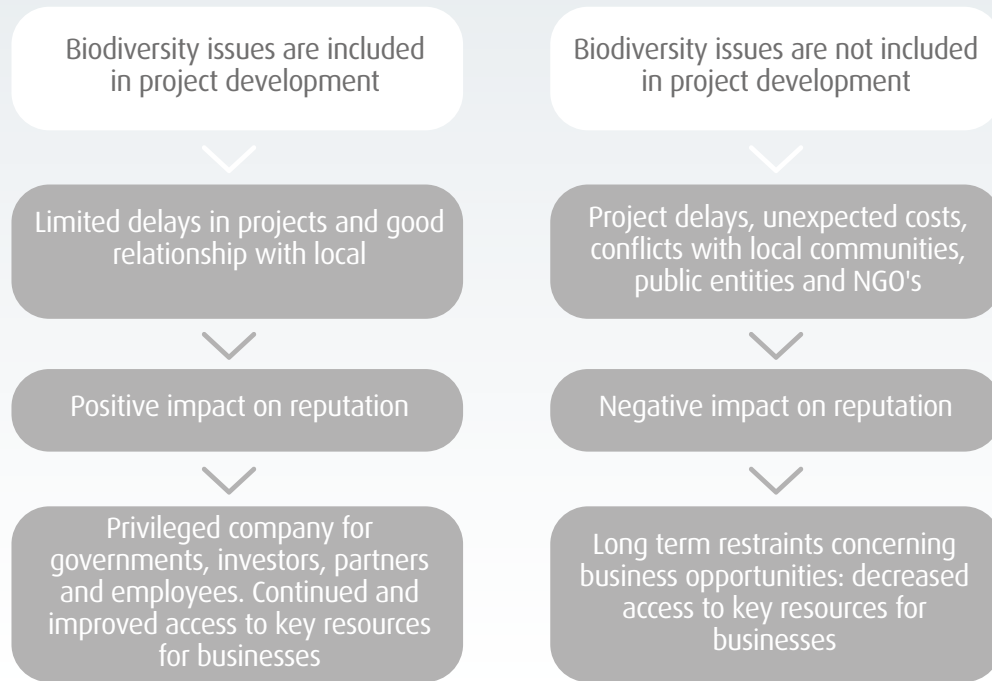


## 2. The risks of not considering Biodiversity in business planning

Key words are: performance, reputation, regulatory risks, access to resources, and access to capital:



## 3. System G+ and Good Practices in Biodiversity Management

The Guide of Good Practices in Biodiversity Management establishes guidelines to integrate Biodiversity in business management and operations and evokes the various elements of Galp Energia Management System for Safety, Health and Environment - System G+ - which explicitly and implicitly guide Biodiversity conservation.

This short document systemises the relationship between System G+ and Biodiversity. This system gathers all HSE components which are inextricably connected and inseparable from the Organisation's Sustainability strategy. In fact, in a business sector such as Galp Energia's, the main risks derive from the hazardousness of produced, handled and transported goods. Protecting the environment is so often to ensure the adequacy and safety of processes, procedures, facilities and equipment and to guarantee people's safety. It is in this context that at Galp Energia and within the framework of its System G+, the three aspects are jointly considered. Biodiversity also beholds this indissociability. Biodiversity is part of the environment and its protection depends on the tools, procedures and practices implemented within the System, with its due and natural specificities.



Rua Tomás da Fonseca, Torre A • 1600-209 Lisboa | Portugal  
Mail interno: AmbAQSCorp@galpenenergia.com  
T: 217 242 500 F: 217 242 965

# Biodiversity at Galp Energia



## KEY QUESTIONS ANSWERED BY THIS BROCHURE

What is Biodiversity?

See Point 1

Why should Biodiversity be considered in business management?

See Point 2

Does Galp Energia manage Biodiversity through System G+?

See Point 3

What are the main Standard Procedures we have to ensure the protection of Biodiversity?

See Point 4

Biodiversity? How can I tell the difference between Priority Conservation Areas and Protected Areas?

See Point 5

## 1. Biodiversity

Biodiversity is a complex network of genetic codes, species, ecosystems and ecological processes which support life on Earth, providing food, pharmaceutical assets, natural resources and a set of ecological services and spiritual, cultural and recreational benefits to human societies. This immeasurable value is presently more at stake than it ever was due to anthropogenic activities.

Biodiversity is one - though not the only one - of the vectors of the sustainability of human activities. Fully aware of the importance and concern surrounding Biodiversity, Galp Energia published a Guide of Good Practices (available on the Corporate EQS site of the intranet), in order to assure continuous integration of Biodiversity issues in the different vectors of Sustainability's trinomial areas: Economy, Environment and Society.

### Figures:

- Over 145 countries have National Strategies and Plans for Biodiversity.
- There are approximately 96,000 Biodiversity Protected Areas in the World.
- Protected Areas cover approximately 1.9 billion hectares.
- 11% of the world's land area is under protection

As known, System G+ is based on a set of 22 elements - 12 of cultural nature and 10 of operational nature - establishing the necessary principles and guidelines to achieve performance excellence in these areas. The following diagram shows these same elements whereas their tools and specific and relevant relationship with Biodiversity are described further below. Notwithstanding, since Biodiversity is an intrinsic part of the Environment, it is implicitly or explicitly present in all elements of System G+.



#### Element 01: Management's commitment

Biodiversity – whilst a part of the Environment - is taken into account in all projects, strategies and decisions. It falls to the Company's Management to show such commitment. This principle compromises the Organisation vertically, through example, but it also raises confidence as to its Sustainability.

Note: There are many examples in the world showing that pushing the analysis of environmental and safety risks into the background will jeopardize corporate Sustainability.

#### Element 03: Integrated Organization

Undoubtedly, the management of Biodiversity - as of other aspects of Safety, Health and Environment - requires an integrated and clarified vision. Thus, the Management's multifunctional involvement and responsibilities - ensuring that all sides of a problem, subject or decision are safeguarded - are crucial aspects and will necessarily point towards the best solutions, i.e. those ensuring the Company's Sustainability.

#### Element 07: Procedures and levels of operational performance

This element is vital to ensure the protection of Biodiversity. First of all, it determines that compliance with the law is not the only benchmark to be considered - this is particularly relevant in contexts with less mature protectionist measures - in the development of activities and planning of the practices to adopt. On the other hand, using the best operational procedures, practices, equipment and facilities will ensure that the highest levels of operating performance will be achieved.

#### Element 09: Effective Communication

This element is particularly relevant when Biodiversity is at stake, to the extent that it relates to values that are often unintelligible and immensurable, such as the spiritual benefits that it so often provides. The correct perception of the risks and impacts of a certain project necessarily implies hearing all stakeholders.

Note: Galp Energia discloses information relating to accidents occurred in companies of the sector, in order to integrate such experience.

#### Element 12: Incident Investigation

Incident report and investigation clearly contemplates environmental incidents, and specifically, Biodiversity. In fact, the classification of occurrences in classes 0 to 4 in terms of damages caused on the environment fully covers Biodiversity (protected species and habitats), as well as natural resources services.

#### Element 14: Contractors

Galp Energia ensures that environmental protection associated to the acquisition of goods and the provision of services is consistent with environmental protection and the preservation of natural resources and Biodiversity.

#### Element 15: Facilities and Equipment Life Cycle Planning and Control

Investment and disinvestment processes take into account aspects such as:  
 > Existence of sensitive receptors in surrounding areas (human receptors, hospitals, residences, recreational centres, etc. - and environmental receptors - soil/flora/fauna in areas with high ecological value; surface and groundwater resources; groundwater extraction, etc.);  
 > Knowledge of Health, Safety and Environment related complaints, claims, incident occurrences or legal proceedings or risks of their occurrence;  
 > Risks for the Environment and/or the Safety and Health of employees or the community in general, present or past, caused by the operation or its assets.

#### Element 16: Pre-start-up review

The start-up of Galp Energia facilities will only take place after guaranteeing that all potential hazards relating to the operation were duly identified, assessed and controlled. This ensures that all Health, Safety and Environment related aspects - including Biodiversity - were duly considered and that the conditions required for a safe operation for people, facilities and the environment are duly met.

#### Element 17: Mechanical integrity

To ensure the mechanical integrity is to mitigate accident hazards and product losses, which enables to reduce any hazard caused to Biodiversity.

#### Element 20: Change Management - Technology

This element is very important to safeguard the safety of operations and therefore, it is also directly relevant for the protection of Biodiversity.

#### Element 21: Risk Analysis

Process risk analysis and management integrate Biodiversity when determining the severity of risks, in terms of protected species and habitats, as well as of natural resources services.

Safety Reports and Internal Emergency Plans cover the environmental side, recognising the need to characterise the facilities' surrounding area, as to its climate conditions, and natural, human, social and economic resources.

Galp Energia further recognises that a process safety incident or event is seldom caused by a single catastrophic failure but probably by a series of multiple and coinciding events or failures. And catastrophic consequents are so often what jeopardizes Biodiversity.

#### Element 22: Emergency preparation and response

Emergency response at Galp Energia clearly covers environmental and Biodiversity risks.

### 4. Galp Energia fundamental Rules and References for the protection of Biodiversity

- > Corporate Manual System G+;
- > NR-004: HSE Management System - Organisational Structure;
- > NPG-006: Communication and Research about Health, Safety and Environment related incidents;
- > GR-006: Methodologies used in Occurrence Analyses;
- > MP-003: HSE Guide for the Marketing and Communication Areas;
- > GR-014: Guide for the external communication of occurrences within the scope of SEVESO and/or Environmental Responsibility and respective indicators;
- > NPG-034: EQS Requirements in the relationship with Suppliers;
- > NPG-038: HSE Requirements for the deactivation of Facilities/Premises;
- > NPG-039: HSE Requirements for Investment and Disinvestment Processes
- > NPG-035: Process Risk Analysis;
- > GT-001: Directives for including the environmental component in Safety Reports and Internal Emergency Plans;
- > GT-002: Directives for defining and reporting Process Safety Indicators;
- > NPG-023: Emergency Response;
- > NPG-022: Mechanical Integrity System;
- > NR-003: Communication Principles in Crisis Situations.

Note: These were the internal procedures and references used to prepare this document. Note that the implementation of System G+ - and therefore the preservation of Biodiversity - implies the application of all underlying rules and references.

### 5. Priority Conservation Areas and Protected Areas

#### Priority Conservation Areas

Priority Conservation Areas may be defined in several ways. The best starting point will be to identify the areas classified by government agencies and recognised conservation organisations. For instance:

- WWF *Glocabl 200 Ecoregions*:  
[www.panda.org/resources/programmes/global200/pages/home.htm](http://www.panda.org/resources/programmes/global200/pages/home.htm)
- Conservation International Biodiversity Hotspots*:  
[www.biodiversityhotspots.org/](http://www.biodiversityhotspots.org/)
- [www.conservation.org/xp/CIWEB/strategies/tropical\\_wilderness/tropical\\_wilderness.xml](http://www.conservation.org/xp/CIWEB/strategies/tropical_wilderness/tropical_wilderness.xml)
- The Nature Conservancy's Conservation by Design – Last Great Places*:  
[www.nature.org/aboutus/howwework/](http://www.nature.org/aboutus/howwework/)
- BirdLife International's Important Bird Areas (IBAs)*:  
[www.birdlife.org/sites/ibaprogramme.cfm](http://www.birdlife.org/sites/ibaprogramme.cfm)
- Centres of Plant Diversity*:  
[www.iucn.org/themes/ssc/plants/centres.htm](http://www.iucn.org/themes/ssc/plants/centres.htm)
- Global Representative System of Marine Protected Areas (GRSMPA)*:  
<http://ea.gov.au/coasts/mpa/nrsmmpa/global/>

#### Protected Areas

The following information sources may be consulted:

#### General:

- > UNEP-WCMC *Protected Areas Database*: [www.unep-wcmc.org/protectec\\_areas](http://www.unep-wcmc.org/protectec_areas)

#### Internacional:

- > *World Heritage Sites*: [whc.unesco.org](http://whc.unesco.org)
- > *Ramsar Sites*: [www.ramsar.org](http://www.ramsar.org)
- > *Biosphere reserves*: [www.unesco.org/mab/wnbr](http://www.unesco.org/mab/wnbr)

#### National:

- > *National Biodiversity Strategies and Action Plans*:  
[www.biodiv.org/world/reports.asp?t=ap](http://www.biodiv.org/world/reports.asp?t=ap)
- > UNESCO *Man and Biosphere Reserves*: [www.unesco.org/mab/wnbr](http://www.unesco.org/mab/wnbr)
- > Ministries responsible for conservation classifications;
- > Regional departments responsible for conservation classifications;
- > IUCN Environmental Law Centre: CentreGodesberger Allee 108-112, 53175 Bonn, GermanyPhone: ++49 228 2692 231; Fax: ++49 228 2692 250, Email: [Secretariat@elc.iucn.org](mailto:Secretariat@elc.iucn.org)