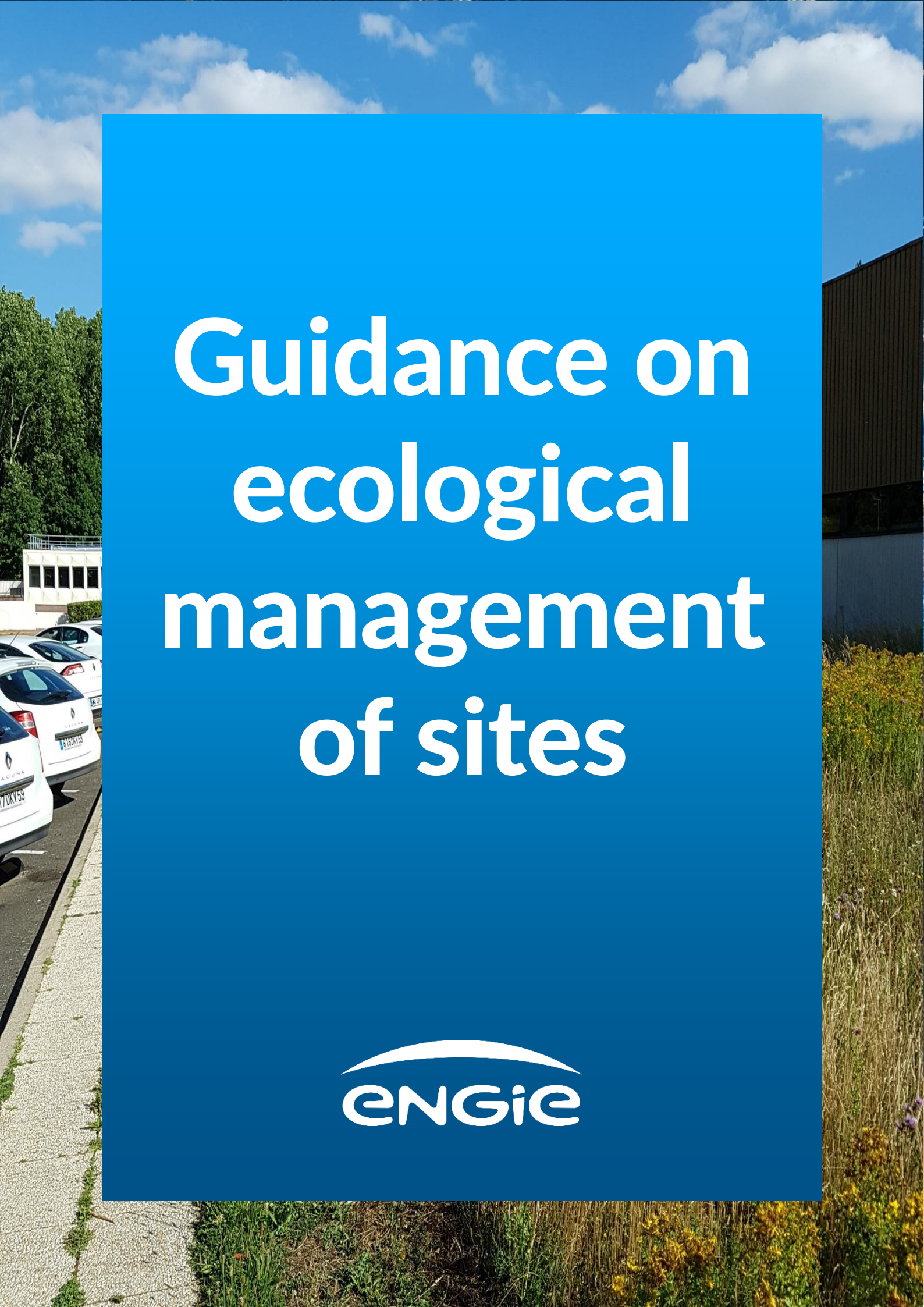


Guidance on ecological management of sites

ENGIE

FOREWORDS

Extinction rate is 10 to 100 times higher than it has averaged over the past 10 million years: 1 million species are threatened (1 out of 8). Biodiversity is declining at an unprecedented rate. In the short term, this situation is of deep concern for the maintenance of our agri-food, health and supply systems. Thus, biodiversity loss, together with climate change, will undermine the ability of most countries to achieve most of their sustainable development goals. Drivers of loss are underpinned by societal values and behaviors: production and consumption patterns, human population, dynamics and trends, trade, technological innovations... Although the current dynamics will not allow us to respond to the urgency of this biodiversity crisis, we can still opt to protect and restore nature.

ENGIE is on its way to lead the zero-carbon transition. Our ambition is to make zero-carbon transition possible for Companies and Local authorities through “as a service” integrated zero-carbon transition solutions. To meet with a sustainable transition, we need to pay attention to the Group impacts on biodiversity and ecosystems. Therefore, as early as 2010, ENGIE committed to mitigate its impact on biodiversity by providing each of its priority sites with a biodiversity protection action, and by supporting act4nature and extending the scope of its biodiversity objectives to all its activities, as soon as July 2018.Since February 2019, ENGIE has also been committed to assessing the potential impact of new projects on UNESCO World Heritage sites (natural or mixed) and to avoiding the development of projects with negative impacts.

This is a two-way interaction: Group activities are partly dependent on ecosystem services in terms of biomass resources, water and climate, and our activities also impact directly on biodiversity. The main impact of Group activities is the fragmentation and disruption of habitats caused by the footprint occupied by our facilities.” Furthermore, poor consideration or anticipation of regulatory changes ever stronger or stakeholder expectations may in particular cause delays or stoppages in our business, and therefore significant financial costs.

ENGIE made biodiversity an integral part of its strategy, business lines and its new product development as early as 2010. The protection of biodiversity is fully involved in environmental and social responsibility of the Group and constitutes a strong challenge to the territorial base of its activity. As a part of its commitments to act4nature “Drafting, in liaison with the internal and external stakeholders concerned, a guide on the ecological management of sites” and in compliance with its biodiversity strategy “Strengthen the Group's commitment to preserve biodiversity”, the CSR Direction is pleased to present this guide to ecological management of sites.

ENGIE, committed to

act4nature international

ENTREPRISES ENGAGÉES POUR LA NATURE

credit ENGIE / STELLA & CADENTE

Contents

WHY IS ENGIE CONCERNED WITH BIODIVERSITY?

Biodiversity is the variability among living organisms from all sources including, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

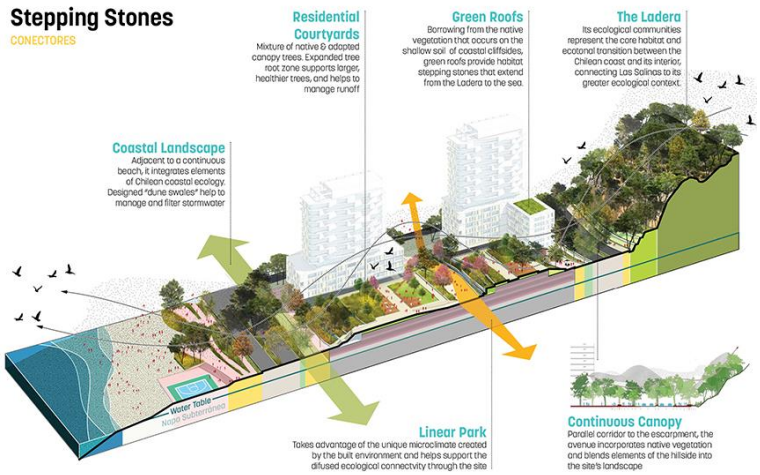
Sometimes implanted in biodiversity hotspots or having sites with a large spatial footprint, ENGIE impacts both emblematic and ordinary biodiversity

In what forms is biodiversity present on sites ?

ENGIE's sites are artificialized areas, or partially artificialized, which shelter biodiversity. The area used by sites includes different **habitats**: natural spaces with various functions that allows **species** to achieve their entire life cycle.

Species and their interactions compose **ecosystems**. It is important that the site would not disturb their functioning and allow the connectivity between habitats, as human activities fragment and destroy these ecosystems. We seek to reduce and erase this fragmentation and create connectivity on our sites. Today, biodiversity is highly threatened by the destruction of habitats, overexploitation, climate change, pollution and invasive alien species. As a complex structure, the loss of a few species or entities can lead to the collapse of vast ecosystems.

Ecological connectivity is essential to the movement, spread and genetic exchange between populations. Ensuring this ecological connectivity through the preservation of corridors allows the functionality of ecosystems in a more effective way. Hedges and riparian forests are well known examples of these corridors, but patch habitats, such as green roofs, act as stepping stones allowing species movement.



How ENGIE's sites impact biodiversity ?

ENGIE's main impact on biodiversity is due to the spatial footprint of its sites (imposed by gas storage facilities and pipelines and by the reservoirs used for hydropower generation for instance) by fragmenting terrestrial and aerial corridors. Environments favorable to the development of invasive alien species can be created during construction works. Then, indirect impacts relate to the Group's sourcing of supplies, especially coal and biomass.

We took commitments and we act

To protect biodiversity with efficiency, ENGIE implemented a biodiversity strategy based on 4 focuses.

Lead a biodiversity network of internal experts through internal training and awareness raising

Strengthen the Group's commitments to preserve biodiversity by integrating biodiversity and implementing a specific management of biodiversity thanks to environmental action plan and ecological guidance

Develop innovative solutions to preserve biodiversity at Group sites by improving our knowledge of the ecological potential of sites with appropriate mapping tools and developing Nature-based Solutions

Ensure that the Group opinions and practices are transparent for outside stakeholders thanks to local participation and national and international partnerships (with the IUCN French committee and FNE)

For the ongoing 2016-2020 period, we tend to develop more proactive actions regarding biodiversity in concertation with local stakeholders on sites. For this purpose, the CSR Direction realized this guidance for the ecological management of sites. This tool is one among others to help protect biodiversity.

The guidance includes a first part about project management and how to implement ecological management on your site with the special advices from advanced sites on this issue. The second part is practical sheets on actions implemented on ENGIE's sites and external best practices (provide in separated files).

Credit ENGIE / MIRO / MEYSSONNIER ANTOINE

ECOLOGICAL MANAGEMENT, DEFINITION AND IMPLEMENTATION PHASES

Ecological management is a way to maintain green areas bearing in mind the environment and biodiversity, in such a way that ecological services and biological resources are conserved while appropriate human uses are sustained. It is based on differentiated spaces that do not require the same management or management intensity.

Ecological management of sites means protecting and restoring the environment through actions such as lowering the pressure level induced by phytosanitary products, the repeated mowing, the soil artificialization, respecting spontaneous flora and fauna, reducing waste, protecting water resources, etc.

Ecological management plan

The management plan is a strategic document that includes a long-term vision and short- and medium-term strategic planning.

It is useful for all stakeholders. It allows to:

- organize and plan the manager's work;
- ensure long-term consistency;
- communicate with the territory;
- make the results of the action readable and exploitable.

Sites can include both artificialized areas i.e. highly impacted by human activities, and agricultural or natural areas or forest. Please note that ecological management refers to artificialized areas and that other ones require specific management.

The roll-out of this plan includes 6 phases

CSR objective requirements

By the end of 2030, 100% of the sites will have implemented the ecological management system below.

This means **at least**:

- **No use of chemical phytosanitary products**
- **Management of green spaces, different from a systematic cutting of grass or trees, in order to restore biodiversity on the site ("differentiated management")**

The actions are integrated into the environmental action plan of the site, and the indicator "MAP0634-Number of sites with ecological management in place" must be completed in the EARTH tool.

Biodiversity diagnosis

It is carried out in two inseparable parts: environmental and societal.

Naturalistic (or environmental) diagnosis

Identify environmental challenges existing on different scales. There are at least two scales:

- regional (radius of several kilometers or regional ecological plan scale or land use plan or territorial policy) for the identification of major issues like ecological corridors;
- site: identification of naturalist potential and ecological issues as well as ongoing maintenance techniques.

This diagnosis helps find and adapt solutions to optimize the management of green areas (transformation of lawn into meadow, late mowing, wildlife refuge area, hedges, ecological engineering in general...).

Necessarily carried out by an ecologist at the site level, the naturalistic diagnosis must be cross-referenced with a competent entity on ecology at the regional level to avoid missing certain issues.

The societal diagnosis

Identification of the stakeholders who will be involved in the process in order to gather their advice on local issues: actors of the agricultural and forest sectors, nature conservation association... the diagnosis is carried out in support with the site manager and the person in charge of stakeholder relations: it is necessary to cross-reference to avoid controversies and to study all the possibilities of co-construction with the stakeholders.
At this stage, synergies with on-site development projects are also monitored to assess the future of the plots.

Do not hesitate to cross-reference the potential actions of the management plan with others that have CSR aspects (art, integration, education).

It is essential to surround yourself well for communication and to rely on your partners for the valorization of the project.

Internally, prepare the project, present it and co-construct the procedures with the employees.

Identification of issues

These major issues are few in number, their identification and prioritization is based on the diagnosis.

Formulation of long-term objectives

A long-term objective is associated with each issue, which makes it possible to measure the effectiveness of management and to frame operational choices. Each long-term objective is quantified or qualified with a level of requirements.

Breakdown into operational objectives

They are at the crossroads of long-term objectives and SWOT factors identified in the diagnoses. They are clearly quantified and qualified and are carried out over several years.

They are divided into actions to be carried out, specified in descriptive sheets.

The sites are under permanent work: operational staff must be involved in the governance of the projects. It allows the integration of operating constraints, prioritized as follows: 1) safety, 2) operation, 3) maintenance.

Implementation of the management plan

Implementation is planned over the entire period of the management plan, e.i. all the actions to be carried out including their monitoring, budget and responsibility as well as the awareness and valorization aspects.

Partners must be proficient in their fields (specifications, equipment, training...) (see links to partners and resources)

Local skills should be promoted where possible and provide the means to combine expertise (i.e. different perspectives and specialties, taking care to address difficulties of understanding)- The management plan is reviewed at least once a year to respond to progress and changes in stakes: it must be challenged. It must also take into account economic uncertainties: ensure flexibility on actions and budgets to reassure but also to enter into the long term.

An internal manager must be appointed; he relies on the experts.

Evaluation and valorization

Evaluation assesses actions and operational objectives with SMART indicators and later determines the maturity level of the management: from "License to operate" to excellency i.e. an activity driven by ecology.

Valorization of the management plan can be carried out in terms of ecology, performance and territorial acceptability.

SMART targets

Specific – target a specific area for improvement

Measurable – quantify or at least suggest concrete criteria

Achievable – make sure the level of performance or requirement matches global strategy and resources

Realistic – state what results can realistically be achieved, given available resources.

Time-related – specify when the result(s) can be achieved

Ecology
The level of maintenance of ecosystem services and the integration of the site into the ecological landscape

Performance
The contribution of the ecological transition to the energy and climate strategy as these two human-induced issues must be tackle together to be resolved effectively[1].
Ecological management allows the rationalization of green areas maintenance costs

Acceptability
The territorial vision of the site gives meaning to the actions and highlights positive externalities.
Quality of work life: many social positive impacts have been identified in relation to the initiatives implemented for biodiversity

This step requires the involvement of teams and supervisors.

[1] Some pathways chosen to achieve the goals related to energy, economic growth, industry and infrastructure and sustainable consumption and production could have substantial positive or negative impacts on nature and therefore on the achievement of other Sustainable Development Goals

PRACTICAL SHEETS

There are 3 types of the following practical sheets: organization, communication and technical ones. Each type is useful at every step of the implementation of the ecological management of sites. This helps navigation through the catalogue and understand where/how to implement each action.

ORGANI-ZATION

COMMUNI CATION

TECHNICS

Organization

Communication -Awareness

COM001_Nesting box competition

COM002_Biodiversity newsletter

Technics

TECH001_Weeding

TECH002_Weeding prevention

TECH003_Grazing

TECH004_Felines monitoring

RESOURCES

Help from local nature conservation NGO or agency is needed. Here is a list of potential resources from implantation countries.

Latin America

Wetlands International https://lac.wetlands.org/

Austria

Naturschutzbund https://naturschutzbund.at/startseite.html

Brazil

APREMAVI https://apremavi.org.br/

Chile

ACCh http://asiconservachile.cl/acch/

France

Zero Phyto tool (NN Chico Mendes) http://www.nn-chicomendes.org/stop-phytos/consulter.php

Video on urban biodiversity (ARB IdF) https://www.dailymotion.com/video/x65dxrm

Conservatoires des Espaces Naturels http://www.reseau-cen.org/

Germany

Federal Agency for Nature Conservation https://www.bfn.de/?L=1

Hungary

MME http://www.mme.hu/

Mexico

Comisión Nacional de Áreas Naturales Protegidas https://www.gob.mx/conanp

FONCET https://fondoeltriunfo.org/

Poland

Polskie Towarzystwo Ochrony Przyrody http://www.salamandra.org.pl/home.html

Portugal

Instituto da conservação da natureza e das florestas https://www.icnf.pt/

Slovakia

Štátna ochrana prírody http://www.sopsr.sk/web/

Turkey

Nature Conservation Center http://www.dkm.org.tr/