

Adapting to climate change in the Soignes forest

VULNERABILITY ASSESSMENT AND ADAPTATION PLAN SUMMARY

VULNERABILITY ASSESSMENT

Global warming is no longer a fiction. The forest managers of [Brussels Environment](#) are already fully aware of this and are already implementing a whole series of measures to adapt to climate change in their daily management of the [Soignes Forest](#).

Beech is still the most common species in the Soignes Forest. Considering its vulnerability to the effects of climate change, Brussels Environment has adopted a new multifunctional management plan for the Soignes Forest in 2019 (which revises the previous plan dating from 2003) and which already allows for the development of a more resilient forest by integrating actions directly related to adaptation to climate change. This increase in the resilience of the forest implies a decrease in the share of beech, a greater diversification of species and an improvement in the structure of most stands. The aim of the management plan is to reduce the proportion of beech to 50% of the forest area by the end of its 24-year term, i.e. in 2043. The climate issue is real and the foresters are expecting and anticipating the effects of climate change by modifying their management practices today (diversification of species, mixed forest, abandonment of clear-cutting, irregular forest management per foot, etc.) while combining these new forest management methods with the ever-increasing human pressure on the forest, especially during heat waves.

The challenge today will be to move even faster in this conversion (within 10 years) while better anticipating the multiple pressures on the massif and the cocktail effects generated by all these pressures.

To do this, Brussels Environment has carried out this initial vulnerability and opportunity assessment, which highlights the adaptive management practices already implemented and described in part below, while proposing a whole series of new measures for the elements that are representative of the Forêt de Soignes,

namely the priority Natura 2000 habitats - 9120 (Atlantic acidophilous beech forest) and 9160 (oak-chestnut forest) but also other abiotic elements (expected modification of soil and water conditions including lowering of the water table but also elements linked to the use of the forest (modification of forestry practices) and expected increased recreational pressures.

This assessment is also an opportunity for Brussels Environment to identify and exploit the opportunities linked to global warming, including the economic development of short, high value-added sectors linked to more sustainable forestry practices, the supervision of new forest use practices such as sylvo therapy and, more broadly, to strengthen the ecosystem services provided by the forest while preserving it. There are also new opportunities to raise awareness and communicate with forest users in order to make them active citizens. Opportunities to create new jobs and new functions such as stewards of the Soignes Forest have also been identified.

SUMMARY OF THE ADAPTATION PLAN

In view of the climate emergency, the conversion of the forest massif is already underway and will be accelerated. As a heritage site, the challenge will also be to reconcile the conversion of the massif with the landscape elements specific to the Soignes Forest (cathedral beech forests, valleys, etc.). Maintaining the soil heritage that has been preserved for more than 10,000 years is also a real challenge that requires us to move even faster towards gentler silvicultural practices while channelling an ever-increasing number of visitors, especially in times of heat waves and health crises.

The [LIFE Natur'Adapt](#) project made it possible to make an initial assessment of the actions already carried out, to identify and amplify the actions to be carried out in the short, medium and long term that are already provided for in the Soignes Forest management plan, but also, and

above all, to make better use of the opportunities identified in the vulnerability assessment.

For the actions underway or those planned in the Soignes Forest management plan, the challenge will be to accelerate the conversion of the beech forest while maintaining the conservation status of the existing ecosystems. The role of the recently established 'Forêt de Soignes' Foundation will be essential to raise awareness of the changes to come and to further dialogue with forest users while making them aware of the expected consequences of global warming. It will be necessary to maximise the buffer effect of the massif on the entities with Unesco status in order to preserve them from the effects of climate change as well as to maximise the ecosystem services provided by the forest for the benefit of the city and its citizens. The Natur'Adapt process has highlighted the need to better monitor changes in the massif (better monitoring of the impacts of climate change, monitoring of hydric and geomorphopedological changes, etc.). Lastly, actions to raise awareness among citizens and forest users (forestry operators) should be strengthened in order to move towards more sustainable use of the forest.

With regard to the new actions identified in the framework of the LIFE Natur'Adapt initiative, a good number of actions aim to improve our knowledge of the species that make up the massif (plasticity and phenotypic adaptation of beech, better knowledge of the resilience of species intended to replace beech, etc.) as well as to set up new monitoring (monitoring of new arrivals, study of compaction linked to logging, accelerating the vulnerability of forests, better knowledge of the ecosystem services provided (carbon storage for example). The LIFE Natur'Adapt will also enable the debate to be relaunched with all the regional players on the possibility or not of introducing new species (translocation) or accepting better adapted genotypes.

In terms of economic opportunities, let us mention the strengthening of the wood value chain, which will generate more added value for the Region and meet the need to better financially value logs that are exploited more sustainably. New jobs will also be created (network of stewards to raise public awareness, development and

supervision of therapeutic activities in full expansion (sylvo therapy, yoga, Taichi, etc.).

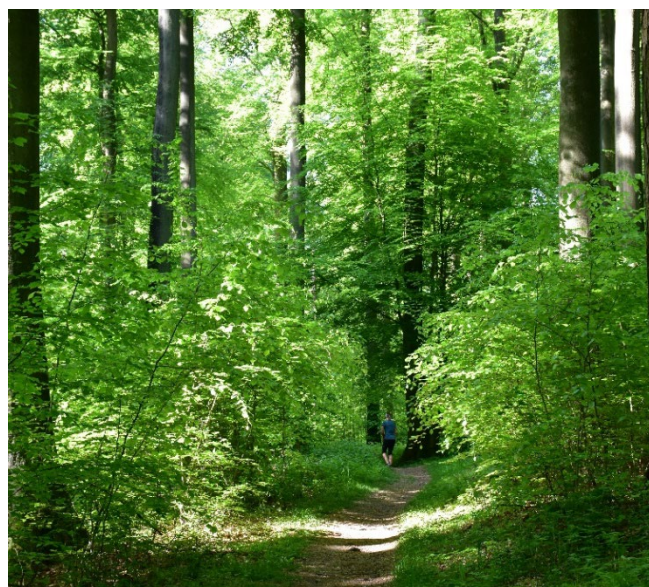
Finally, certain new investments will be studied and, if relevant, implemented. These include dikes to better retain runoff water on the plot, and the reinforcement of means and equipment linked to the new monitoring to be put in place.

These documents are intended to be evolving and are in no way scientific documents.

**ENTIRE DOCUMENTS AVAILABLE
HERE:**

[Vulnerability assessment \[FR\]](#)

[Adaptation plan \[FR\]](#)



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