

Progress Report on Meeting Commitments

Act4nature Portugal

INDIVIDUAL COMMITMENT 1 | Update approach to integrating B&ES conservation into corporate strategy, in line with available scientific knowledge and voluntarily accepted commitments.

2020 | Work started on defining roadmap for updating this approach, in order to take snapshot of current situation.

2021 | No significant developments in relation to situation reported in 2020, but work proceeded in line, also, with the commitments in the Company's 2030 Agenda published in 2021.

INDIVIDUAL COMMITMENT 2 | Implement annual monitoring plans and B&ES conservation and restoration work in forest holdings managed by the Company.

2020 | Monitoring carried out under annual plans and specific projects

Overall results to date of annual monitoring plans:

Around 800 species and subspecies of flora and 245 species of fauna identified in forest holdings managed by Navigator; 12% (approximately) of the forest area managed by Navigator comprises zones with interest for Conservation; 4,075 hectares classified as protected habitats by Natura 2000 Network.

Monitoring in dedicated projects:

Monitoring of wildlife on 6 properties, in spring/summer, as part of partnership with University of Lisbon Science Faculty (FCiências.ID and cE3c – Centre for Ecology Evolution and Environmental Changes) and the University of Aveiro (CESAM – Environmental and Marine Research Centre). Installation of network of camera traps in two of those properties (in the Abrantes and Idanha-a-Nova regions), in order to monitor the mammals present on properties over a continuous period of 6 months. 16 species (including 4 bird species) were recorded up to end of year. The species most often detected up to October were deer (*Cervus elaphus*) in Zambujo and fox (*Vulpes vulpes*) in Caniceira. Alongside this, the community of micromammals was assessed using traps, identifying the Western Mediterranean mouse (*Mus spretus*) as the most commonly detected species on both properties. This work will supply data for a master's thesis in conservation biology at the Lisbon University Faculty of Science.

During winter/spring (breeding period), 6 nesting sites of the Bonelli's eagle (*Aquila fasciata*) were monitored. Successful breeding (at least one chick) confirmed at 3 sites. Monitoring of 1 black stork (*Ciconia nigra*) nest, with successful breeding (two chicks).

2021 | Monitoring carried out under annual plans and specific projects.

Overall results to date of annual monitoring plans:

Around 800 species and subspecies of flora and 245 species of fauna identified in forest

holdings managed by Navigator; 12% (approximately) of woodlands managed by the Company comprises zones with interest for Conservation; 4,075 hectares classified as protected habitats by Natura 2000 Network.

Monitoring in dedicated projects:

Monitoring of wildlife on 6 properties, in spring/summer period, in areas managed by Navigator in the national network of protected areas (Valongo special conservation zone, Serras do Porto Park) and Monchique conservation zone (vegetation, flora and habitats only).

In the Valongo conservation zone and Serras do Porto Park: In terms of conservation interest flora, in particular that contained on the Mainland Portugal Vascular Flora Red List, one vulnerable species was detected (*Linkagrostis juressi*) along with a near-threatened species (*Cheirolophus uliginosus*), recorded here for the first time in the Serras do Porto Park. Two species listed in Annex IV of the Habitats Directive were also found: butcher's broom (*Ruscus aculeatus*) and cow-horn bog-moss (*Sphagnum auriculatum*). Fourteen types of habitat were identified corresponding to those listed in Annex I of the Habitats Directive. One vulnerable species of conservation interest fauna, contained in the Mainland Portugal Vertebrates Red List, was found to be present: the gold-striped salamander (*Chioglossa lusitanica*).

Monchique special conservation zone: Identification of three conservation interest species of flora identified (listed on Mainland Portugal Vascular Flora Red List): *Quercus canariensis* (critically endangered), *Carex helodes* (vulnerable) and *Campanula alata* (vulnerable). Work is being undertaken on one of these properties to improve the state of conservation of protected habitat 9240 Iberian oaks *Quercus faginea* and *Quercus canariensis*, which includes increasing density of *Quercus faginea* and *Quercus canariensis* using plants produced at Navigator's nurseries from acorns sourced from the property and maintaining the state of conservation of habitats 9330 (*Quercus suber* woodlands) and 5330 (arbutus woodlands).

During winter/spring (breeding period), 9 nesting sites of the Bonelli's eagle (*Aquila fasciata*) were monitored. Breeding was successful (at least two chicks) in only one nesting site, which does not mean that success was not achieved at another still unknown nesting site. It is thought that the weather conditions and the degraded state of conservation of some trees as a result of forest fires may have contributed to the lack of success. A black stork (*Ciconia nigra*) nest was also monitored, with successful breeding (two fledglings) and a goshawk nest was discovered, also with reproductive success.

A further 20 nesting boxes were installed at the start of the year (making a total of 40 on one property) to encourage nesting by insect-eating species (such as blue tits and nuthatches) and also to control pests in cork oak woodlands. Most of the boxes (34) were occupied by tits (*Parus major*), blue tits (*Cyanistes caeruleus*) and nuthatches (*Sitta europaea*).

INDIVIDUAL COMMITMENT 3 | Define a simplified framework, in line with the key elements of the Natural Capital Protocol, for systematic assessment of B&ES impacts and dependencies, testing the approach in a pilot project.

2020 | Due to start in 2021.

2021 | Carried forward to 2022.

INDIVIDUAL COMMITMENT 4 | Foster forestry certification in Portugal to ensure that more than 75% of all raw materials procured is of certified origin, on a sustained basis.

2020 | Total percentage of raw material with certified origin: 74% of total (Portuguese and imported).

2021 | Total percentage of raw material with certified origin: 71% of total (Portuguese and imported).

INDIVIDUAL COMMITMENT 5 | Develop training programmes with content relating to B&ES conservation topics and raise awareness of good business practices, for internal and external employees.

2020 | Training provided to internal employees and forestry service providers, with a total of 400 trainees and around 500 hours of training.

Syllabus content included in training in good practices applicable to main activities (installation of plantations, maintenance and operation) include guidelines and procedures relating to soil and water conservation, conservation of areas of conservation interest, including preservation of protection strips along water courses, protection of nests and dens/burrows, protection of cultural and archaeological heritage, protection of flora species of conservation interest and management of waste resulting from different activities.

2021 | Training provided to internal Employees and forestry service providers: total of more than 200 trainees and approximately 400 training hours. Tec4Forest: a programme of training and transfer of technical know-how to external stakeholders, with a total of 250 trainees and 47 sessions.

Syllabus content included in training in good practices applicable to main activities (installation of plantations, maintenance and operation) include guidelines and procedures relating to soil and water conservation, conservation of areas of conservation interest, including preservation of protection strips along water courses, protection of nests and dens/burrows, protection of cultural and archaeological heritage, protection of flora species of conservation interest and management of waste resulting from different activities.

Training in Forestry Projects and Certification & Conservation, on the topic "Portuguese Mammals: identification, research methods, conservation and occurrence in forest areas".

Workshop presenting results of the "Wildforest project - Conservation of wildlife and exotic production forests: the need for a two-way relationship in sustainable landscapes" (Univ. of Aveiro and Lisbon University, Faculty of Science), <http://wildforests.pt/pt/>, and of the camera trap network operated in 2020 and 2021 on the Caniceira and Zambujo estates.

Attended by around 30 persons, including representatives of Navigator's Forest Management Department, RAUZ and the Company's nurseries.

INDIVIDUAL COMMITMENT 6 | Promote and/or take part in projects for innovation and development of naturally-based solutions for managing countryside, processes or products.

The naturally-based solutions that can be adopted, with a direct or indirect impact on B&ES

conservation, include bioproducts. Developing sustainable bioproducts, reducing dependence on fossil resources and promoting decarbonisation of the economy, corresponds in fact to one of the Company's commitments.

Investment in substitution of plastic tubes for producing eucalyptus plants (by cuttings), at Espirra Nurseries, by paper-wrapped substrate cylinders which, because they are biodegradable, are placed in the ground with the plants, and eventually break down in the soil. This initiative marks the start of a new drive towards sustainable production of eucalyptus globulus with interesting potential for reducing the use of plastic, replacing it with a renewable material such as paper.

R&D lines in the Inpactus project, most notably for progress in biochemicals and biofuels (related to essential oils from eucalyptus foliage, and production of bioethanol from waste forestry biomass and primary sludges from industrial process).

2021 | Continuation of R&D work under the Inpactus project, for which RAIZ won a series of TECNICELPA awards at the 25th International Conference on Forests, Pulp and Paper and CIADICYP 11th Ibero-American Congress on Pulp and Paper Research 2021 (e.g. on the topics "Production of prebiotics from bleached *Eucalyptus globulus* kraft pulp", <http://raiz-iifp.pt/trabalhos-do-projeto-inpactus-premiados-na-tecnicelpa/>).

Participation in the Circular Bioeconomy Alliance (CBA) platform (<https://circularbioeconomyalliance.org/>), established to accelerate the transition to a circular bioeconomy that is climate-neutral, inclusive and in harmony with Nature, in partnership with the European Forest Institute (EFI).

Collaboration with the European SINCERE – NOBEL projects, through participation in the final conference presenting the findings, in the panel discussion on "Business models for forest ecosystem services" (<https://nobel.boku.ac.at/wp-content/uploads/2021/09/SINCERE-NOBEL-International-Conference-Programme.pdf>).

Participation in and leadership of rePLANT project, which seeks principally to preserve biodiversity and introduce a high degree of innovation in forestry operations. The line of action 'Collaborative Strategies for the Circular Economy and Value Chains' is led by Navigator Forest Portugal and by ForestWISE (<https://replant.pt/economia-circular-e-cadeias-de-valor/>).

Participation in the Celpa Better Eucalyptus projects: REPLANT– recovery of burned areas in Pedrógão Grande and other areas, with reforestation including native species (e.g. *Arbutus unedo*, arbutus or strawberry tree).

Collaboration on the joint statement of support for the United Nations Decade of Ecosystem Restoration, drawn up by the WBCSD Forest Solutions Group, contributing to illustration of the three pillars of action by companies in the sector, with its case study of restoration of the special conservation areas in Monchique, as described above under Commitment 2 (<https://www.wbcsd.org/download/file/12253>).

INDIVIDUAL COMMITMENT 7 | Undertake at least two partnerships with external bodies (representatives of academia, research centres, non-governmental organisations and other stakeholders) on projects for B&ES conservation at local, regional or national level or at the landscape scale.

2020 | Cooperation Agreement with Serras do Porto Park with a view to ongoing fire prevention and defence of the Serras do Porto Park Regional Protected Landscape, and surrounding communities. One of the examples of biodiversity conservation initiatives to be undertaken will be improving the ecological state of water masses, and also improving the state of conservation of other types of natural and seminatural habitats found in the areas of the municipalities or in areas managed by Navigator Forest Portugal.

Logistical support for the "Wildforest Project - conservation of wildlife and exotic production forests: the need for a two-way relationship in sustainable landscapes" (University of Aveiro and Lisbon University Faculty of Science), <http://wildforests.pt/pt/>.

2021 | As part of its annual monitoring programme (Commitment 2), the Company assessed zones with interest for Conservation in 4 properties under its management in the Serras do Porto Park (summary of findings in Commitment 2). These are sites for future improvement of state of conservation/restoration, this work will serve as a benchmark for future study of biodiversity gains.

Logistical support for the "Wildforest Project - conservation of wildlife and exotic production forests: the need for a two-way relationship in sustainable landscapes" (University of Aveiro and Lisbon University Faculty of Science), <http://wildforests.pt/pt/>. The fieldwork was completed in 2020 and provided data for 5 Master's degree and one PhD (not yet finalised).

Informal partnership with the University of Lisbon Faculty of Science, for Master's degree studies in biodiversity gains in restoration areas. The first Master's study is being conducted in southern Portugal, on the topic: "Effect of passive restoration actions in eucalyptus plantations on composition and structure of the community of micromammals".

INDIVIDUAL COMMITMENT 8 | Disseminate regular information from multistakeholder initiatives in which the company takes part in order to promote B&ES conservation, directly or indirectly.

2020 | A session of the Sustainability Forum was held on the topic "Natural Capital, Value for Business, Nature and Society" (Valongo, November 2020).

Collaboration with WBCSD and We Value Nature on three training sessions on natural capital assessment, two of which as part of the WBCSD virtual events (June) and one as part of the '24th EMAN Conference on Building resilience in a time of crisis: the role of sustainability leadership, accounting and reporting' (September), at which Navigator made a presentation on its assessment in the trial for the 'Forest Sector Guide to the Natural Capital Protocol'. This training reached a total of more than 200 participants from companies in various sectors and countries.

Participation in BCSD Portugal Biodiversity working party, devoted to the topics of Biodiversity and Bioeconomy, involving launch of the Act4Nature Portugal initiative. Navigator was the sponsor company and sits on the Steering Committee and the Advisory Board (https://bcsdportugal.org/wp-content/uploads/2020/12/Act4nature-Portugal_Compromissos-empresariais_VFF_compressed-1.pdf).

Navigator has joined Act4Nature Portugal and taken an active part in disseminating it, as well as participating in the 2nd Online Conference of Companies for Biodiversity.

Participation in webinar on "The importance of Biodiversity and Ecosystem Services", organised by LIPOR.

Talk for environmental engineering students at University of Coimbra on Natural Capital and

Sustainability.

Publication of content on biodiversity and ecosystem services, including Portuguese woodland habitats and their importance for conservation on the Florestas.pt platform (<https://florestas.pt/conhecer/>).

2021 | Continued participation in the WWF initiative 'The Forests Dialogue' (<https://theforestdialogue.org/>) and in the WWF programme 'Forests Forward' (<https://forestsforward.panda.org/>).

Participation in BCSD Portugal Biodiversity working party, devoted to the topics of Biodiversity and Bioeconomy. Participation in BCSD Technical Committee for the Charter of Principles (<https://bcdsportugal.org/carta-principios/>), taking the role of ambassador company for Principle 2. Working for Nature, contributing to the standard framework of tools, initiatives and methodologies for biodiversity.

Provision of information content on biodiversity and ecosystem services, including Portuguese woodland habitats and their importance to conservation through Florestas.pt (<https://florestas.pt/conhecer/>), which has won M&P Media Awards (<http://raiz-iifp.pt/florestas-pt-distinguido-pelos-premios-comunicacao-mp/>), underlining its importance as a knowledge hub for forest and the many different areas they interact with.

Sharing of information on work done in partnership with the Serras do Porto Park at Navigator's Sustainability Forum addressing "Dynamic Forest Protection".

Joint organisation, sponsorship and active participation in a panel discussion on the topic "Working for Nature", at the 2021 Annual Conference of BCSD Portugal, explaining the Company's position and its main activities that contribute to nature and biodiversity conservation through sustainable forest management (<https://bcdsportugal.org/conferencia-anual-2021/>).

INDIVIDUAL COMMITMENT 9 | Issue annual public reports on progress in meeting act4nature Portugal commitments and publicise the company's main activities in connection with this initiative.

2020 and 2021 | Progress report published in Sustainability Report.