



QUINTA DO COBRAL CLIMATE ACTION PLAN and CARBON MANAGEMENT PLAN

OVERVIEW

Prior to the cessation of travel in March 2019 we were already aware that changes needed to be made. COVID-19 grounded us along (I suspect) with most tourist accommodation/destination businesses. However, great (and forced) changes can bring new ideas and innovation. What this meant for Quinta do Cobral was that it did not feel like the right time to sit quietly with our green and sustainable practices but to embrace them head on and improve.

We want to continue to offer immersive and responsible holiday experiences with clear future goals to improve and communicate our plans in a clearer and inclusive way.

One of the ways we are doing this is to set clear, targeted goals to achieving excellence in the field of green & sustainable tourism here in Central Portugal, Portugal as a whole and Europe too - We may be small but we are not be ashamed of wanting to "Be the Best"!

These goals will help us to continue on a path towards reducing our impact on our beautiful valley and our home country of Portugal.

GOALS

1. **MEASURE** - Measure the omissions from our Quinta and Holiday Cottage occupation.
2. **REDUCE** - Continue to improve our renewable energy commitments and set realistic emission reduction targets.
3. **OFFSET** - To offset unavoidable emissions we will investigate the purchase of Carbon Credits including introducing Carbon Neutral Stays by 2024
4. **EVOLVE** - Continue to learn from others, from partnerships where possible and adapt to new technologies as an when they are available

Our Plan is not made up of one quick fix because we don't believe there is one. We are proud of what we have already achieved living an off grid life and providing luxury Eco Accommodation for our visitors. We want to act now to improve but also to take time to review and research new innovation and technologies as there is so much happening around the world and some great examples of good practice which could help to support our plans. We want to continue as a low carbon destination with our ultimate desire to reach Zero-net emissions by 2025.

CLIMATE CHANGE RISKS FOR QUINTA DO COBRAL

Portugal has long been familiar to tourists (especially the far South-Algarve area) because of its perceived “Good climate”. The tourist industry is, by its nature, fragile and susceptible to political, economic & social changes (not to mention Global Pandemics!). However, climate change now adds a new, very real dimension of uncertainty to planning and future development.

The fragility of the natural environment such as water saving, fire risk and erosion have also been affected by the rapid increase in tourism and its spread to other areas of Portugal, not least the Central Region where our farm is situated. It seems that public opinion is more and more concerned by the impact of tourism on the environment as well, which is a good thing.

We have owned our farm for 20 years and even in that relatively short time we have seen some huge changes in climate and experienced the consequences of this directly. The predictions are that we will all experience more extremes in temperatures, rain and snowfall, wind and sea temperatures, we have already evidenced all these warnings.

In 2017 we lived through the worst forest wild fires in living memory, we and our animals were unable to escape (all routes were cut off) but we managed to survive (all of us!) and save our buildings and most of our infrastructure and equipment too. We learned a sobering lesson that night, experiencing extremes in temperature, lack of rain and hurricane force winds culminating in 96% of our region being burned - true devastation.

Since this time we have made a number of critical changes and improvements and, while we would never be complacent, we do feel better protected. As a result we have been working towards a relevant Risk Assessment and Action points to help us stay focussed, improve further and mitigate some of the hazards around climate change. (*please see separate Risk Assessment for wild fires*)

CLIMATE ACTION AND CARBON REDUCTION GOALS

How have we been addressing our goals?

GOAL 1 - MEASURE

What we have achieved

- We include the “WHOLE” farm in our Carbon Use Calculations and will continue to do so as our business is totally linked with everything we do here.
- We currently use www.carbonfootprint.com to help us with our annual Carbon Calculations but will remain vigilant to updating the calculator used should more accurate ones emerge using the latest emission factors.

OUR CALCULATIONS FOR Sept 2021 - August 2022 are:

Main House (2 occupants) - 5.64 tons CO₂

This includes all fuel consumption, owner flights, firewood burned etc.

Guest House (up to 4 per night) - 15.6k CO₂ per night booked (not including guest travel - we aim to try and calculate this for 2022 - 2023 and beyond using a **guest feedback form**)

TOTAL NIGHTS BOOKED = 152k = 2.380 tons CO₂

Goal targets

Continue to measure our carbon use annually - 2023

GOAL 2 - REDUCE

Reduction of emissions will be achieved 2 ways:

1. Through our own use on the farm
2. By informing our visitors about ways they can help during their stay, both in person and via our website/blog and social media.

What we have achieved

- We have increased our solar battery array by double the previous levels to enable us to achieve a seamless power delivery both in summer and winter with no auxiliary generator power needed thus saving on diesel use - we have gone from 12x 8amp hour batteries to 24x 8amp hour batteries
- Hot water - We are currently fitting a 25kw biomass log boiler which will provide all the hot water we need for heating the house via a buffer tank and our underfloor heating over 2 floors. The new boiler is highly efficient, 80-90% more efficient than fossil fuel boilers. This will replace our pellet boiler which we have not been happy using. Pellets are manufactured and as such are not carbon neutral. They have to be delivered over distances rather than wood which is either from our own woodland or ordered from our local supplier less than 2km away, supporting local business and boosting our local community. The carbon produced by a well installed, efficient wood biomass boiler is the same quantity absorbed by the tree over its life so the total carbon emission is negligible. The ash waste produced is minimal but what there is can be used as a harmless, natural material and either used directly on our plants or added to our composting bin system.
- Carried out a Climate Change Risk Assessment to inform future issues such as lack of water, river management, extreme temperatures etc.

Goal targets

- We will be installing 4 more, high generation solar panels on our roof taking our total from 12 to 16 - 2023
- Buildings - We will fit a new roof to the main house as the tiles on the current roof are degraded and letting in water. This will use local terracotta tiles (as well as local workmen) and give us the opportunity of further increasing our insulation.

Our old rock wool insulation has now failed providing little but bird bedding for our wild bird community!! - 2023/2024

- Oil consumption - we will investigate ways of using less diesel by increasing our solar array (see above) cutting out our need for the generator, we are so close to this target having only used our generator for 1 day during the winter of 20/21 - 2022
- Gas consumption - We already use very little gas, just for summer cooking when the ESSE is not lit and for cooking in the holiday cottage. We will investigate ways of purchasing from more ethical suppliers. Currently Portugal has no natural gas resources of its own. The supply of gas to the Portuguese market comes from Algeria & Nigeria - 2023/2024
- We aim to provide an on-site bike rental service for guests to explore the area by bike thus reducing the number of car journeys - 2023/2024
- To continue to grow our own food and food for our animals - improving our composting system and irrigation - 2023
- Plan a series of instagram and facebook stories with Eco tips and ideas to help people reduce their own carbon emissions - 2023
- Produce an information sheet explaining our Climate Action Plan and Carbon Reduction Goals - How can they help? Ideas for reducing carbon and travel? - 2023

GOAL 3 - OFFSET

If, despite research & thinking, it is not possible to significantly reduce our carbon emissions in certain areas we will investigate Carbon Offsets as a way of controlling our overall footprint

what we have achieved

- Currently we are in the research stage of this goal. We are very aware that there are many, many different organisations offering Carbon Offsets but we want to ensure we only support offset providers by purchasing verified carbon credits. We are leaning towards using Carbon Offsets (if needed) from The Gold Standard Foundation. Gold Standard is considered the most stringent standard for carbon credits by many NGOs, including WWF and the David Suzuki Foundation. Gold Standard-certified "Climate+" projects deliver benefits for climate protection--plus for local people and ecosystems. To earn Gold Standard certification, Climate+ projects must follow best practices for safeguarding principles and stakeholder inclusivity, plus measure and verify contributions to a minimum of three Sustainable Development Goals.

GOAL 4 - EVOLVE

We don't want to take this journey alone. We are keen to invest in collaborations with like minded organisations & businesses who are also taking urgent climate change action.

What we have achieved

We have been working closely with **INSTITUTO DA CONSERVACAO DA NATUREZA E DA BIODIVERSIDADE** - Overseen by the Institute for Conservation of Nature and Forests in Portugal - the ICNF - <https://www.icnf.pt/ondeestamos>

Goal targets

- We have reached out for their support with the aim of producing a bespoke Biodiversity Plan for our farm. In doing so we will be working alongside another tourist destination in our area. I am very excited by this collaboration and look forward to producing our new plan in 2023
- With the help of the ICNB we hope to carry out a survey of our land and identify areas of concern and where we can improve our land to help combat climate change and in doing so improve the biodiversity of the farm. It will be very helpful as they can help us target native species which I am not so familiar with - 2023

Quinta do Cobral
Ishbel Ramsay - November 2022