

**JAHAMA HIGHLAND ESTATE
GREENHOUSE GASES – STRATEGIC ESTATE APPRAISAL
INTERNAL BRIEFING/MATERIAL FOR PRESS RELEASE**

The Jahama Highland Estate (JHE) extends to 461 km² (approx. 114,000 acres), much of it devoted to tree growing, pasture and deep peat deposits.

We have undertaken a high level strategic review of the estate's contribution to the problems of Global Warming, and Greenhouse Gases in particular. This is to enable us to set the framework and priorities for further more detailed work, and as part of the wider GFG commitment to CN30.

It is important to understand that these are broad estimates, based on desk-based studies of the current land use on the estate and available data on emission and sequestration rates.

Our key findings:

- Annual rate of carbon sequestration on the estate is approximately 30,665 tonnes of carbon, equivalent to 112,000 tonnes of carbon dioxide.
- The peat bogs on the estate sequester about half the carbon dioxide, providing a long term store for the sequestered carbon provided the peat itself is not eroding. We have estimated that the long term storage of carbon in the peatland alone on the estate may amount to 10 million tonnes.
- The downside of peatland carbon sequestration is the emission of two other greenhouse gases, methane and nitrous oxide. Allowing for this, the annual contribution of the estate to reductions in greenhouse gases through net sequestration by soils and vegetation is approximately 62,000 tonnes of CO₂e/yr.
- A financial value can be placed on these figures using official government figures for the marginal abatement cost of dealing with the impact of GHGs in achieving targets for global temperature rises.
- The value of annual sequestration on the estate is approximately £1.3 million on this basis. Capitalised over 100 years using HM Treasury Green Book Methodology, this is equal to £281 million.
- The carbon already stored in the peat is worth £800 million on the same basis.

Next steps: We are now taking forward the following work

- Carbon footprint of land management activities on the estate, in particularly the farming activities
- Selective peatland condition surveys focussed on high risk areas. For example a study in 2018 of five areas on the estate extending to 484.79 ha (approx. 1,200 acres) determined potential emissions savings by peatland restoration of 468 t CO₂e/yr.
- Continuing work on the broader range of natural capital assets on the estate, with an initial focus on water, recreation, peatland and carbon.

All work at this level is of course subject to many assumptions and limitations. More details are provided in our 'Jahama Highland Estate Land Use and Carbon Sequestration Estimates Interim Report'

Charles Cowap

24 May 2021