

# Crooked Carbon Business

## An assessment of 11 carbon projects<sup>1</sup>

### 9 The UK Woodland Carbon Code (with examples of credit-generating projects in Scotland)

#### 1. About the scheme

The UK Woodland Carbon Code (WCC) claims to be “Backed by government, the forest industry and carbon market experts [and] generates high integrity, independently verified carbon units.”<sup>2</sup> Run by the Scottish government agency Scottish Forestry, it was established in 2011 and operates across the UK. It is endorsed by the carbon industry greenwashing body, the International Carbon Reduction and Offset Alliance, ICROA.<sup>3</sup>

As of March 2025, the scheme had validated 762 projects, covering nearly 40,000 hectares of land, with a claimed total of nearly 13 million tonnes of carbon sequestration. Two-thirds of the validated projects are in Scotland, and a quarter in England though, by area, those in Scotland represent 85 percent of the total. Almost all of the credits issued relate to claimed additional carbon storage (rather than avoided emissions) through tree planting.<sup>4</sup> A further 1,400 or so projects are under development, which would purportedly add a further 16 million tonnes of carbon storage.

As explained below, the scheme is unusual in that it issues credits called ‘Pending Issuance Units’, which are issued on an *ex-ante* basis, i.e based on *forecasts* of carbon savings that projects will produce in the future, rather than have occurred in the past. The scheme charges 15 pence per unit to issue PIUs, and 10 pence per unit to convert these to verified units. One report suggests that units from the scheme have been selling for around £25 (around US\$32) per unit, amongst the highest in the voluntary markets.<sup>5</sup> A policy paper published by academics last year called for the UK to include voluntary carbon credits issued under the WCC as part of its domestic compliance carbon market, the UK Emissions Trading Scheme.<sup>6</sup>

No offset ratings agency has assessed the WCC, and it has not applied for eligibility for the Integrity Council on Voluntary Carbon Markets scheme.

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<sup>1</sup> This briefing is part of the Crooked Carbon Business series which includes 11 briefings on specific carbon offset projects and a collection of academic and media reports documenting the flaws of carbon offsetting. The briefings have been researched and written between September 2024 and September 2025 by Simon Counsell and Jutta Kill, with financial support from the Network for Social Change.

<sup>2</sup> UK WCC website, <https://bit.ly/46NrEYa>

<sup>3</sup> ICROA website, <https://bit.ly/3X59bD5>

<sup>4</sup> There is a similar UK scheme called the UK Peatland Code.

<sup>5</sup> UK forest carbon standard updates registry fees, nears 12 million tonnes of validated sequestration. Carbon Pulse, 31.07.24 <https://bit.ly/4coMG0t>

<sup>6</sup> Rosales R C et al. The Carbon Credit Price and National Tree Planting Impact of Woodland Carbon Code Admittance to the UK-ETS. 2024. Foresight Forestry Group, Imperial College Business School and Kings College London. <https://bit.ly/3SRG9E7>

	<b>Woodland Carbon Code scheme, United Kingdom</b>
<b>Project owner</b>	UK government
<b>Project partner</b>	Operated by Scottish Forestry
<b>Scheme start date</b>	July 2011
<b>Scheme lifetime</b>	Indefinite
<b>Projected volume of emissions avoided (tonnes of CO<sub>2</sub>)</b>	No specified upper limit, but already validated projects and those currently 'under development' would sequester around 29 million tCO <sub>2</sub> e)
<b>Validation / 1<sup>st</sup> verification</b>	n/a n/a
<b>Validator &amp; verifier first verification</b>	n/a
<b>Project area (hectares)</b>	No specified upper limit, but already validated projects and those currently 'under development' would take place on 92,794 ha
<b># of credits issued as of March 2025</b>	13 million, mostly consisting of 'Pending Issuance Units'
<b># of credits used by final buyer ("retired") as of March 2025</b>	4,600

According to the WCC, over 400 companies have bought credits from the scheme. These include the supermarket chain Waitrose, which says its engagement with the programme has raised the company's "environmental and corporate responsibility credentials."<sup>7</sup> Others include BWOC, a major supplier of fossil fuels, and Premier, the UK's "leading independent paper merchant."<sup>8</sup>

## **2. What are the claimed objectives/outcomes?**

The Woodland Carbon Code says that it exists to support the creation of new UK woodlands that can credibly and transparently remove CO<sub>2</sub> from the atmosphere, while enabling the sale of verified carbon credits to fund this work. It claims to ensure that these credits are trustworthy, scientifically robust, and contribute to broader environmental and social goals, such as biodiversity and habitat creation, flood mitigation, water and air quality improvements, recreation, community engagement, education, timber, livestock shelter. The scheme is linked to the UK Forestry Standard, the "technical standard for sustainable forest management across the UK", with which all WCC projects should comply.

## **3. What has been happening in reality?**

### **3.1 Credits for carbon storage that does not actually exist yet**

The WCC is unusual in that it issues units on an *ex-ante* basis – meaning that these units can be issued against supposed additional carbon storage which has not yet occurred but is projected to occur in the future. These are called 'Pending Issuance Units'. These units can later be converted to a

<sup>7</sup> WCC website. Waitrose. <https://bit.ly/3FXgmHK>

<sup>8</sup> WCC website. Carbon buyers. <https://bit.ly/3FO8ubB>

verified Woodland Carbon Unit (WCU). As yet, the vast majority of issuances – around 12 million – have been in the form of PIUs. These PIUs can stretch 100 years into the future. About 3.5 million of them have already been sold. Only around 12,000 actual verified Woodland Carbon Units have been issued, sold or retired.<sup>9</sup> In this sense, the “independently verified” units are, in the first instance merely validation that the conditions have been put in place which, if the project proponent’s assumptions and hopes are fulfilled, will result in the claimed carbon storage at a specific date in the future.

Of course, many things can go wrong between a scheme being started (or *claimed* to be started – see below) and the actual date when the carbon is supposed to be stored. Trees do not grow as well as was hoped, or at all. They suffer disease, weather damage, or fire, all of which are believed to be increasing because of climate change. One example of this can be seen at the Kinrara Estate project, near Aviemore, Inverness-shire (the status of which in the WCC registry is ‘under development’). Part of this area is an afforestation project started in 2022, and sponsored by the Scottish brewing company, Brewdog. The company acknowledged in 2024 that there had been a “higher-than-expected failure rate” of the plantings, due to “extreme” weather conditions. Ironically, the company announced at the same time that it had stopped ‘outsourcing’ its carbon responsibilities by purchasing carbon offsets – which, it said, had become “unsustainable” - in order to concentrate on its own project at Kinrara.<sup>10</sup> An inspection carried out for this briefing found in July 2024 that around 85-90 percent of the young broadleaf saplings in one parcel of land were dead. Those remaining alive were mostly very stunted birch saplings.<sup>11</sup> (Investigators have also found extensive and unnecessary fencing and disturbance of peatland using heavy machinery on upland parts of the site, prior to planting, and say that natural regeneration would have been adequate.<sup>12</sup>)



Brewdog’s ‘Lost Forest’ afforestation project at Kinrara: all lost.

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<sup>9</sup> Carbon Pulse. UK forest carbon standard updates registry fees, nears 12 mln tonnes of validated sequestration. 31.07.24 <https://bit.ly/4coMG0t>

<sup>10</sup> Brewdog drops ‘unsustainable’ offsetting approach and carbon negative plan. <https://bit.ly/4fLHA16>

<sup>11</sup> Plantings of conifers in other parts of the estate appear to have been much more successful.

<sup>12</sup> Kempe, N. 2023. BrewDog’s “Lost Forest” at Kinrara – senseless, destructive and a misuse of public money. October 9, 2023. <https://bit.ly/43Qa0Df>

The WCC encourages landowners to engage in the scheme, saying that “selling your units as Pending Issuance Units allows you to quickly recoup money spent on establishing your woodland.”<sup>13</sup> It goes on to state in an ‘Important note’ that:

“Pending Issuance Units can’t be used to compensate for your buyer’s emissions. They help companies to plan for compensating future UK-based emissions. As a responsible seller, it’s vital you make this clear to anyone buying your units.”

A review of the websites of the four largest project developers, accounting for more than half of the currently validated WCC area, showed that only one of them (Scottish Woodlands) actually provided this guidance.<sup>14</sup>

### 3.2 Where’s the additionality?

According to the WCC, an area equivalent to 47 percent of all new woodland created in the UK in 2023 to 2024 has been validated to the Code, and by March 2025 a total of 38,705 hectares of woodland planting had been validated. But it is very unclear what claim to additionality any of this would have. At a national level, the rate of ‘woodland’ creation (both conifers and broadleaves) in the UK has been uneven for the last two decades or so, but relatively flat, and if anything on a downward trend. According to official figures, less woodland has been created in the twelve years since the scheme was started than was created in the twelve years prior to it.<sup>15</sup> This suggests that the scheme overall has been having a limited or negligible effect on stimulating planting that would not have happened anyway.

This concern has existed throughout the WCC’s history. The WCC included additionality requirements from the outset, even if these were fairly vague and weak. Projects should not be obligatory under law, and a financial additionality test required that “The project would not have gone ahead without the availability of carbon finance.”<sup>16</sup> But there has always been concern that the various grants available to landowners for tree planting undermined the need for carbon offsets to fund tree planting initiatives<sup>17</sup>. A change to the additionality requirements after only one year was telling: it stated that “Carbon finance payments shall cover at least 15 percent of the project’s planting and establishment costs”. A 15 percent dependence on carbon finance would hardly seem to be decisive. The rules were changed again in the May 2022 (and still current) version of the WCC, stating that “without carbon finance the woodland creation project is either *not the most economically or financially attractive use for that area of land* or is not economically or financially viable on that land at all” (emphasis added).<sup>18</sup> The first part of this new definition fundamentally changes the requirement that carbon finance is *essential* for the project to exist at all, with the provision that some other (or existing) use would be *more profitable*. Standard spreadsheets are provided by the WCC to enable landowners to do the profitability calculations.

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<sup>13</sup> WCC website. 6. Sell your carbon units. <https://bit.ly/3SRewuQ>

<sup>14</sup> A second, Forest Carbon, referred to it in a ‘personal view’ blog, but not in its main FAQs page, even though this has several sections on Net Zero, and the meaning of PIUs and WCUs. See <https://bit.ly/4e3nFdm> and <https://bit.ly/4463VBy>

<sup>15</sup> Forest Research. Woodland Statistics., 2024. <https://bit.ly/3WN7IQs>

<sup>16</sup> WCC, Woodland Carbon Code, v1.0. 21 July 2011. <https://bit.ly/3FCGMi0>

<sup>17</sup> See for example, Teanby, A. Why additionality poses problems for the UK carbon market and why farmers need a strategy. Savills Blog, 3 April 2023. <https://bit.ly/45oOOW1>

<sup>18</sup> WCC. Woodland Carbon Code, v2.2. April 2022. <https://bit.ly/400RMwf>

One of the scheme's original architects and key industry insider notes of this form of additionality that "in reality it is a highly subjective concept that rests in the minds of farmers (owners, tenants, commoners and crofters) and their families, of estate trustees and indeed directors of investment firms."<sup>19</sup> In other words, one of the fundamental underpinnings of the primary UK offsetting scheme, which claims to now be responsible for nearly half of country's annual woodland plantings, is something which may or may not really exist. In practice, there have always been doubts about the rigour with which the scheme actually assesses the additionality requirements anyway.

A further problem was that the scheme initially allowed *existing* plantings to join, even if they had started well before the WCC even came into existence. These projects are of course completely non-additional. An example of this would be the 'Scottish Forest Alliance' group project submitted by BP-Amoco in 2014 (now held by BP Exploration Operating Co. Ltd), which was validated in 2019.<sup>20</sup> This particular project covers multiple sites totalling 4,800 hectares, or about 12 percent of the WCC's total validated project area. The project document shows that the plantings actually began as early as 2000 (eleven years before the WCC was started) and none of them later than 2007.<sup>21</sup> Field inspection of several of the sites in one of the component projects in July 2024 confirmed that all of the plantings were at least 15-20 years old. The project has so far been issued with 61,000 units. The Royal Society for the Protection of Birds (RSPB) and the Scottish Woodland Trust are both partners in the scheme.

It is not known how many of the 762 projects so far validated were similarly in existence before the WCC started and are therefore also entirely non-additional. Any schemes could join up until mid-2013. From then until July 2021, any plantings could register with the WCC so long as they did so within two years of starting. Only after this time were projects required to register *before* any planting started.

### 3.3 Business as usual, with carbon credits thrown in?

Linked to the previous issue, has been whether many WCC-approved project are essentially normal commercial forestry operations for the part of the country in which they occur.<sup>22</sup> Scrutiny of project documents and field inspections suggest that a significant proportion of projects validated or under development are in fact such operations. An example of this would be the Cambusurich project of Scottish Woodlands Ltd, covering 252 hectares above Loch Tay. This is described on the WCC project registry as a "Mixed mainly thin and clearfell project". The WCC validation statement claims that it will result in 48,734 tCO<sub>2</sub>e of claimable carbon sequestration over the project's 100-year lifetime. The project document states that "The management objective is to create a commercial woodland using a wide variety of conifers to limit the risk of climate and tree disease along with planting native species adjacent". The carbon calculation sheet for the project shows that half the planting area is in fact Sitka spruce, Norway spruce and Scots pine – all usual main commercial forestry species in Scotland. A field inspection of the site in July 2024 found that these species were planted in large expanses, with mixed and minor species planted in and around and in marginal or difficult areas, or those closer to public rights of way (for 'screening' or landscaping purposes) – thus reflecting normal

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<sup>19</sup> Hepburn S. J. Where is the Woodland Carbon Code Today? A Personal View. Forest Carbon. 12 January 2023. <https://bit.ly/4463VBy>

<sup>20</sup> WCC. 2019. Group Validation statement, Scottish Forest Alliance. <https://bit.ly/4kHrCHj>

<sup>21</sup> WCC. 2019. Group Project Design Document (PDD) Version 1.2. 27 July 2014. Scottish Forest Alliance. <https://bit.ly/4kHrCHj>

✓ <sup>22</sup> See for example, Strutt and Parker. Balance required on additionality test for woodland carbon. 11 November 2021. <https://bit.ly/4jRBZXR>

forestry operations in such contexts. The plantation fills in a gap in a landscape of almost continuous commercial forestry operations.

Analysis of the data provided by the WCC shows that 45% of the area of all the validated projects will be “solely or mainly” ‘managed’ through clearfelling. This strongly suggests that a high percentage of the projects being validated under the scheme are likely to be normal commercial forestry operations.

#### **4. Key ‘takeaways’ from this project**

- ✓ The WCC appears in many ways to represent a scheme built around the utilisation of carbon markets, but which actually serves quite different purposes. Principle among these seem to be an increase of financial benefits from forestry to large landowners, which in the UK has a long and inglorious policy history. Shifting the financial burden of subsidies to forestry from government to the private sector could also be a hidden objective. Encouragement of wider tree planting for multiple social benefits could be a more understandable and acceptable objective, but if so, it is not clear that the scheme is succeeding.
  
- ✓ In climate terms, the admission of projects which pre date the scheme seriously undermines its claim to generate “high integrity” credits. The *ex-ante* crediting basis of much of the project creates a huge risk of greenwashing, and probably provides a perverse incentive for delinquency: what would be the point of ensuring a project actually fulfils its 100-year mission if ‘units’ for future carbon savings, which may or may not ever be verified, have already been sold? The extremely low rate of conversion of PIUs to WCUs suggests this could already be happening. The support for ‘business as usual’ forestry in a context of a rapidly changing climate seems to indicate a lack of consideration for the potential impermanence of tree-sequestered carbon, even without deliberate clear-felling of the resulting plantations.

Whatever other objectives the WCC might be achieving, it is probably close to worthless in climate policy terms.

#### **5. Where to find more information?**

The current UK Woodland Carbon Code is available here: <https://bit.ly/400RMwf>

The registry for the UK WCC scheme is here: <https://bit.ly/400Xqyr>

A report on the effect of the scheme to inflate land prices is here: <https://on.ft.com/4jUbi4O>