HM Treasury

NS&I

United Kingdom Debt Management Office

UK Green Financing

Allocation and Impact Report

September 2023

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The UK's Green Financing Programme (the 'Programme') raises financing from investors to fund green expenditures that tackle climate change, biodiversity loss and other environmental challenges. Financing is raised through the issuance of sovereign green bonds (green gilts) via the Debt Management Office (DMO) and the sale of National Savings and Investments' (NS&I) retail Green Savings Bonds.

The principles of the Programme are set out in the Green Financing Framework (the 'Framework'), published in June 2021.[1] The Framework includes guidelines on green expenditures that can be included in the Programme. The Framework also commits the government to annual reporting on the allocation of green expenditures and biennial reporting on their environmental impacts and social co-benefits, to ensure transparency.

In line with the Framework's reporting commitments, HM Treasury is publishing in this document the second allocation and the first impact report for the Programme. It presents impact data, where available, from 27 expenditures, and allocation data from 51 expenditures, all financed by the Programme. These expenditures cover all six categories for eligible green expenditure identified in the Framework: clean transportation; renewable energy; energy efficiency; pollution prevention and control; living and natural resources; and climate change adaption.

The allocation details the financing raised in financial year 2022 to 2023, and the green expenditures which have received funds. In 2022-23, £10.5 billion was raised via green gilts and Green Savings Bonds. Of this, a net £8.6 billion has been allocated to eligible green expenditures, including £9.0 billion allocated to green expenditures this year and £433 million of underspend from expenditures financed in 2021-22. This leaves £1.9 billion to allocate to eligible green expenditures in the 2024 Programme allocation.

Environmental impact and social co-benefit estimates are provided for the £16.4 billion of expenditures which received financing raised in financial year 2021 to 2022, the first year of the Programme. Quantifiable environmental impact and/or social co-benefit data are available for 19 of the 27 financed expenditures.

The impact data demonstrate how the Green Financing Programme is supporting the pathway to meet the UK's 2050 net zero target, protecting property and infrastructure from the effects of climate change, rebuilding natural ecosystems, stimulating the development of self-sustaining markets for low-carbon technologies, and supporting jobs in low-carbon and energy efficient sectors across the UK, alongside other government policies and market-led initiatives.

1 *Green Financing Framework*, HM Treasury, June 2021

Most of the data have previously been published by government spending departments. Impacts for individual expenditures have been pro-rated for the purpose of reporting on only the first year of the Programme's contribution to the overall impacts. The impact estimates in this report thus do not represent the full impact of the financed policies or reflect the UK's progress towards net zero. The pro-rated impacts for individual expenditures have been aggregated to estimate the total impact for the first year of the Programme.

In aggregate, 2021-22 Programme financing is estimated to have:

- avoided at least 9.6 MtCO2e of greenhouse gas (GHG) emissions[2]
- installed 226,947 electric vehicle (EV) charging points
- funded 212,312 EVs
- planted at least 1,200,000 trees
- supported at least 31,100 jobs
- saved £9.5 million annually on household energy bills

The estimation method used in this report takes a rigorous and cautious approach, which is detailed in the methodology section. The total Programme impact estimate therefore represents a probable lower bound for the Programme's impact so far.

The total Programme impact estimates above only include UK-based policies; the Programme has also financed eligible UK expenditures in Official Development Assistance (ODA)-eligible countries. Impact estimates of ODA policies are presented separately to reflect specific challenges of attributing impacts for these policies to the Programme. Through contributions to ODA projects, the Programme is estimated to have:

- avoided at least 214 MtCO2e of GHG emissions overseas
- supported at least 52,600,000 people increase resilience or better adapt to the effects of climate change

As the first impact report for the Programme, this publication provides as much information as possible on the data that are currently available and the impacts of individual expenditures. All the data used in this report are also presented in an accompanying spreadsheet published alongside this report. As environmental impact reporting standards develop and quantifiable results are available for more policies, it should be possible in future reports to present more environmental and social co-benefit data across the Programme's allocated expenditures.

2 Million tonnes of carbon dioxide equivalent – a single emissions metric that accounts for the different global warming potential of different greenhouse gases.

The UK's climate and environmental leadership

The UK's climate and environmental leadership

The Programme is key to delivering the UK government's ambitious objectives on net zero, climate resilience and nature restoration. The government is committed to tackling climate change and delivering the UK's legal obligation to reduce emissions to net zero by 2050. The net zero transition is also one of the greatest economic opportunities of this century, and the government is ensuring that the UK takes advantage of its early mover status and provides businesses with the long-term certainty and confidence needed to make the UK the best place to invest in green industries. Another key priority is for the UK to adapt fully to the changing climate, which is vital for protecting the economy and strengthening national security. More widely, the government agrees with the central conclusion of the independent Dasgupta Review on the Economics of Biodiversity that nature, and the biodiversity that underpins it, ultimately sustains economies, livelihoods and well-being. The government has an ambitious agenda to halt and reverse biodiversity loss and leave the environment in a better condition than when it inherited it.

The UK has demonstrated that growing the economy and cutting emissions can be achieved at the same time. Between 1990 and 2021, the UK cut GHG emissions by 48%, decarbonising faster than any other G7 country, whilst growing the economy by 65%.[3] In the five years to 2023, the UK was one of the top three countries in Europe for clean energy investment.[4] Since 2010, low carbon sectors in the UK have seen public and private investment of approximately £198 billion. Across 2021 and 2022 alone, it is estimated that £50 billion of new public and private investments were made in low carbon sectors.[5]

The UK has comprehensive legal frameworks to mitigate and adapt to the effects of climate change and to protect and restore the natural environment. Under the Climate Change Act (CCA) 2008 there is a legal target for at least a 100% net reduction in GHG emissions by 2050 compared to 1990 levels. In addition to the Net Zero target, this legislation sets out a system of legally binding interim carbon budgets to ensure the UK's targets are met and that allow us to plan a cost-effective and world-leading path to meet the 2050 goals. The CCA also requires the Government to complete a Climate Change Risk Assessment (CCRA) every five years, followed by a National Adaptation Programme (NAP) setting out how the government will address the risks arising from climate change identified by the CCRA. The ambitious Environment Act 2021 provides a framework to clean up the UK's air, restore natural habitats, increase biodiversity, reduce waste and make better

3 *Powering Up Britain*, DESNZ, April 2023
4 *Powering Up Britain*, DESNZ, April 2023
5 *Powering Up Britain*, DESNZ, April 2023

use of the country's resources These changes are driven by a statutory environmental improvement plan, 13 new legally binding environmental targets and oversight from the new Office for Environmental Protection.

The government has set out clear objectives and plans to deliver net zero, increase resilience to the effects of climate change, and protect and restore the natural environment within a long-term policy framework. The UK's plans for decarbonising the UK economy were outlined in the Net Zero Strategy (2021). Building on this, in March 2023, the government published Powering Up Britain, which included an updated Net Zero Growth Plan.[6] This built on the Net Zero Strategy to set out plans for each sector, alongside regulatory and long-term funding support for key green industries. It included announcements on mandates for Zero Emissions Vehicles (ZEVs) and heat pumps, a commitment to set out a long-term pathway for the UK Emission Trading Scheme (UK ETS), and progression of Carbon Capture Usage and Storage (CCUS) clusters. The publication of the third NAP in July 2023 marked a step-change in the UK government's approach to climate adaptation, putting in place an ambitious programme of decisive action for the next five years. In January 2023, the government published its revised Environmental Improvement Plan (EIP23), which builds on the 25 Year Environment Plan by setting out the actions and interim targets that need to be achieved in the next five years to drive the UK towards meeting its legally binding long-term targets.

While the majority of investment for the net zero transition will come from the private sector, the UK's legal and policy framework for climate change and the environment is backed by targeted public spending which will leverage significant private capital. Spending Review 2021 confirmed that since March 2021, the government has committed a total of £30 billion of domestic investment for the green industrial revolution.[7] The government has since made new announcements that provide long-term certainty on our investment plans, including £6 billion for energy efficiency and up to £20 billion for early deployment of CCUS. The Autumn Budget and Spending Review 2021 confirmed more than £250 million of public investment over three years to protect and restore nature, in support of the UK's target to halt biodiversity decline by 2030, along with a commitment to raise at least £500 million per annum in private finance for nature's recovery by 2027 and more than £1 billion per annum by 2030.[8] By mobilising this capital for nature recovery, the government will also be delivering social co-benefits by driving climate adaptation.

The government also published the International Climate Finance (ICF) Strategy in March 2023, setting out how the UK will support climate action internationally.[9]

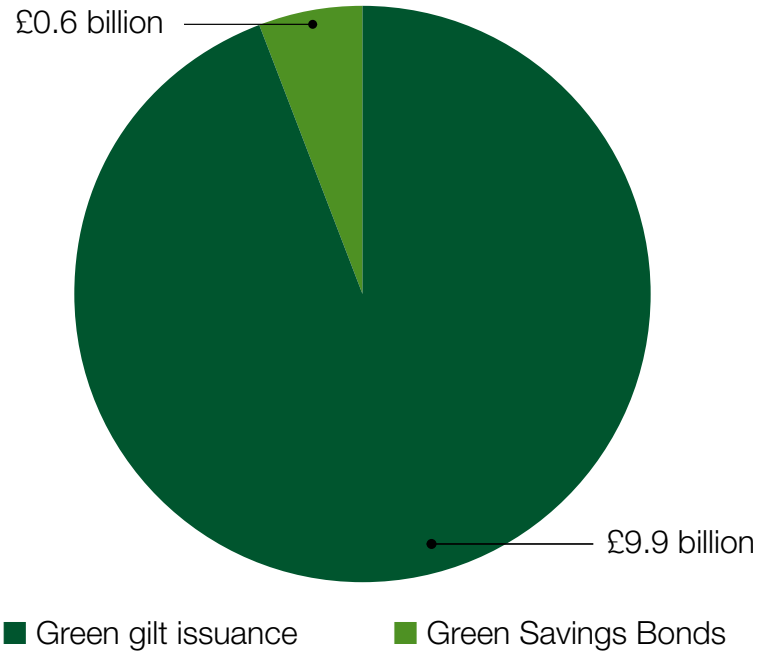
6 *Powering Up Britain*, DESNZ, April 2023
7 *Powering Up Britain*, DESNZ, April 2023
8 *25 Year Environment Plan Annual Progress Report*, DEFRA, 2022
9 *Together for People and Planet: UK International Climate Finance Strategy*, HM Government, March 2023

Green financing raised in 2022-23

Green financing raised in 2022-23

Financial year 2022 to 2023 marked the second year of the UK's Green Financing Programme. Total proceeds of £10.5 billion were raised in 2022-23 via a combination of green gilt issuance by the DMO, and sales of retail Green Savings Bonds by NS&I. The majority of these proceeds – £9.9 billion – was raised through five green gilt transactions undertaken by the DMO. The remaining £0.6 billion was raised through the sale of retail Green Savings Bonds by NS&I. This report accounts for proceeds raised through both instruments in 2022-23.

Chart 1: Funding raised by instrument type, 2022-23



Green gilt issuance in 2022-23

In 2022-23, the DMO held five green gilt transactions: one syndication and four auctions (Table 1).[10] Together, these transactions raised £9.9 billion in cash proceeds. The priority for green gilt issuance in the second financial year of the Programme was to build up the size of the two existing green gilts that were launched in September 2021 (0⅞% Green Gilt 2033) and October 2021 (1½% Green Gilt 2053) respectively, in order to increase liquidity in green gilts of 10- and 30-year maturities.

10 The DMO also created £846 million nominal of green collateral in 2022-23. This collateral will remain on the DMO's balance sheet until maturity and will not be sold outright to market participants. Green collateral, as with other forms of collateral created by the DMO, will specifically be used in the DMO's cash management activities.

Table 1: Green gilt transactions in 2022-23

Date of transaction	Gilt name	Operation type	Cash proceeds (£ billion)	Cover ratio (x)
10 May 2022	0⅞% Green Gilt 2033	Auction	2.0	2.37
28 September 2022	1½% Green Gilt 2053	Syndication	2.4	–
9 November 2022	0⅞% Green Gilt 2033	Auction	2.1	2.25
1 February 2023	0⅞% Green Gilt 2033	Auction	2.3	2.22
22 February 2023	1½% Green Gilt 2053	Auction	1.1	2.42
		TOTAL	**9.9**	**–**

Green gilt sales in 2022-23 continued to attract interest from gilt investors who are integrating environmental, social and governance (ESG) factors into their investment decisions, as well as from dedicated ESG investors, some of whom are relatively new to participating in the gilt market.

Green Savings Bonds in 2022-23

In 2022–23 NS&I continued to strengthen its green investment retail offer, selling two new issues of Green Savings Bonds. In August 2022, NS&I put a new issue on sale at a fixed rate of 3.0% per annum over a three-year term. This was followed by a new issue in February 2023, at a fixed rate of 4.2% per annum over a three-year term. Since the first issue in October 2021, NS&I has created five issues of the Green Savings Bond, with the latest issue in August 2023, offering a fixed rate of 5.7% per annum over a three-year term.

£623 million was raised via Green Savings Bonds in 2022-23. By investing in retail Green Savings Bonds, UK savers have had the unique opportunity to help fund green projects across the UK whilst knowing that 100% of their savings are guaranteed by HM Treasury. Customers can purchase bonds ranging in value from £100 to a maximum of £100,000 per person per issue.

Expenditure selection process for allocation

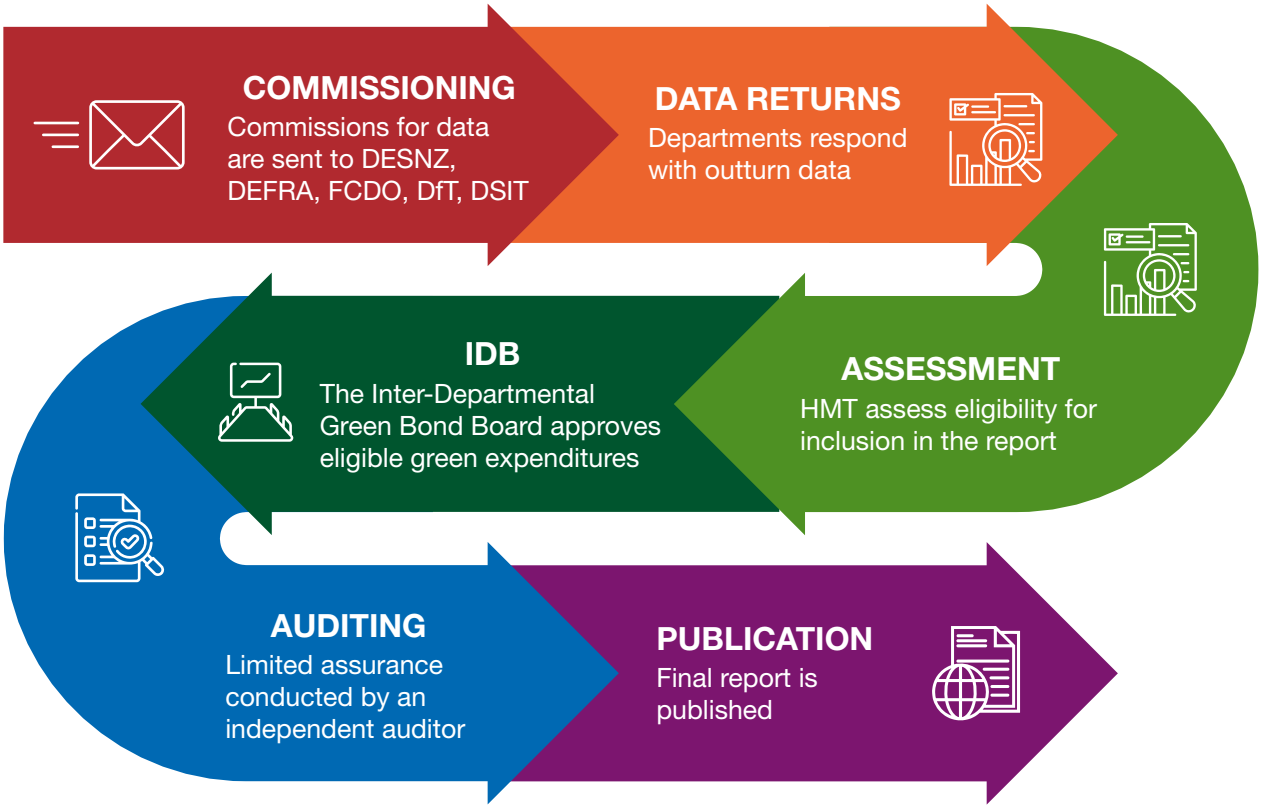
HM Treasury has allocated the proceeds raised from the green gilts and retail Green Savings Bonds in 2022-23 to eligible green expenditures. As detailed in the Framework, eligible green expenditures fall within one or more of the six categories: Clean Transportation, Energy Efficiency, Renewable Energy, Pollution Prevention and Control, Living & Natural Resources and Climate Change Adaptation. They can include government expenditures in the form of direct or indirect investment expenditures, subsidies, tax foregone and associated operational expenditures.

Eligible expenditures are limited to government expenditures that occurred no earlier than 12 months prior to issuance, the financial year of issuance, and the two financial years following issuance. HM Treasury allocates at least 50% of net proceeds to current and future expenditures. This means that a single expenditure year can be eligible for inclusion in multiple reporting years. However, the government does not allocate the same spend twice and only additional spend on a policy is reflected in the allocation in any subsequent year.

The Framework also lists excluded expenditures, including nuclear energy and fossil fuel exploitation and exploration. Expenditures such as carbon capture technology and hydrogen are eligible as these technologies will be important in achieving the UK's net zero targets in hard-to-abate sectors. However, these together make up less than 1% of the total allocation in 2022-23.

HM Treasury leads the evaluation and selection of eligible green expenditures, in consultation with the relevant government departments: specifically the Department for Energy Security and Net Zero (DESNZ), the Department for Science, Innovation and Technology (DSIT), which were both formally part of the Department for Business, Energy and Industrial Strategy (BEIS); the Department for Environment, Food & Rural Affairs (DEFRA); the Department for Transport (DfT); and the Foreign, Commonwealth & Development Office (FCDO). Coordination of this work takes place via the Inter-Departmental Green Bond Board (IDGBB), which is chaired by HM Treasury. The DMO and NS&I also attend the IDGBB.

In order to determine the allocation, HM Treasury commissioned relevant government departments for eligible green expenditure figures and estimates. Those were compiled and compared to the portfolio of expenditures reviewed by V.E (now Moody's) as part of their Second Party Opinion in 2021. Bilateral meetings were then conducted with departments to determine the green credentials and eligibility of expenditures. HM Treasury drew up a proposed allocation, and brought this provisional allocation to the IDGBB for conditional approval. Following the confirmation of final expenditure figures ('outturn data') for the preceding financial year, the IDGBB then provided approval of the final allocation. HM Treasury appointed Grant Thornton UK LLP to provide independent limited assurance of the allocation figures for financial year 2022 to 2023 using the assurance standard ISAE 3000 (Revised). Grant Thornton has issued an unqualified opinion over the allocation figures, which is provided in the section 'Verification and assurance'.



Spending in Scotland, Wales and Northern Ireland

UK government expenditure across the UK – in England, Northern Ireland, Scotland and Wales – is eligible for financing as part of the Programme. In this report, UK government expenditures that span all the UK's constituent nations are included.

Authority over some climate and environmental policy areas, including most transport and agriculture, is devolved. Decisions on which projects and initiatives to pursue in these areas are generally therefore for the devolved administrations (DAs) in Northern Ireland, Scotland and Wales. While the UK government supports such expenditures indirectly, through providing block grant funding to the DAs, the expenditures and projects are not directly overseen by the UK government and as such are out of scope of the Programme.

Consequently, this allocation has a disproportionate geographic weighting to expenditure in England; this is a reflection of the devolved nature of much climate and environmental policy.

Official Development Assistance (ODA)

UK government expenditures with relevant climate and environmental objectives in ODA-eligible countries, for example programmes funded via International Climate Finance (ICF), are also eligible for financing as part of the Programme. The UK International Climate Finance Strategy sets out how the UK will support climate action internationally.

The Spending Review process

The Spending Review (SR) is the main process for decision making about government spending. Insofar as it sets the broad parameters for green expenditure over a given period, it is a key determinant of the quantity of 'use of proceeds' green financing.

SRs set resource and capital budgets for all UK central government departments and the DAs' block grants. They can provide single-year or multi-year settlements. At the most recent SR, in autumn 2021, departments agreed three-year settlements with HM Treasury covering the period 2022–23 to 2024–25. SRs involve discussions between spending departments and HM Treasury, with final decisions taken by ministers.

SR settlements set out planned expenditure over the period they cover. These plans may be adjusted in practice within that period, subject to agreement by HM Treasury. The government may thus adapt spending plans during an SR period in response to new priorities and events.

Summary of Green Financing Programme to date

This table shows the allocation from the Programme to eligible green expenditures. This allocation may not match a given policy's total spending or budget in each financial year. The table also shows pro-rated headline impacts for expenditures financed in the 2021-22 allocation of the Programme.

Table 2: Summary of Green Financing Programme to date: allocation (2021-22 and 2022-23) and headline impacts (2021-22)

Name	Green expenditure category	Expenditure description	2022 allocation (£ million)			2023 allocation (£ million)			Programme share of impacts (2022 allocation)	
			2020-21	2021-22	Total	2021-22	2022-23	Total	Headline impact	
Cycling & walking fund	Clean Transportation	A collection of funds promoting cycling and walking including: Local Authority (LA) Infrastructure, LA Capacity Building Fund, National Cycle Network, Bikeability, National Cycling & Walking, E-Bike Support	£304.98	£279.22	**£584.20**	£0.05	£272.58	**£272.63**	–	–
Electric Vehicles Homecharge Scheme *(formerly Homechargers)*	Clean Transportation	Grant contributing to the cost of one chargepoint and its installation at domestic properties	£24.43	£54.91	**£79.34**	–	£12.29	**£12.29**	224,965	Charging points installed
Low Carbon VIP R&D – Innovate UK	Clean Transportation	Funding for industry projects in low emission vehicle and charging infrastructure technologies	£51.22	£47.00	**£98.22**	–	£3.25	**£3.25**	–	–
On-Street Residential Chargepoint Scheme *(formerly On Street Chargers Grant)*	Clean Transportation	Grant funding for local authorities to part-fund the procurement and installation of on-street EV chargepoint infrastructure for residential need	£6.03	£20.58	**£26.61**	–	£26.98	**£26.98**	1,982	Charging points installed

Name	Green expenditure category	Expenditure description	2022 allocation (£ million)			2023 allocation (£ million)			Programme share of impacts (2022 allocation)	
			2020-21	2021-22	Total	2021-22	2022-23	Total	Headline impact	
Plug in car grant	Clean Transportation	Grant that provides discounts on eligible zero emission cars.	£216.77	£283.35	**£500.12**	–	£20.02	**£20.02**	180,595	Vehicles funded
Plug in van grant	Clean Transportation	Grant providing discounts on eligible zero emission vans.	£82.70	£99.27	**£181.97**	–	£85.93	**£85.93**	31,717	Vehicles funded
Rail enhancement schemes	Clean Transportation	Funding for various rail electrifications and expansions. Electric rail only and does not include HS2 spend.	£679.30	£772.00	**£1,451.30**	(£257.20)	£709.00	**£451.80**	0.23	MtCO2e of GHG avoided (unadjusted for Programme share)
Track maintenance	Clean Transportation	Funding to maintain existing rail. Electric rail only and does not include HS2 spend.	£599.59	£662.03	**£1,261.62**	£1.64	£693.11	**£694.75**	–	–
Track renewal	Clean Transportation	Funding to renew railway tracks. Electric rail only and does not include HS2 spend.	£1,645.79	£1,662.47	**£3,308.26**	–	£1,686.47	**£1,686.47**	–	–
Zero emission buses	Clean Transportation	Funding to support the purchase of zero emissions buses	£50.00	£220.29	**£270.29**	£129.79	£58.40	**£188.19**	1.31	MtCO2e of GHG avoided
Flood & Coastal Erosion Risks Management *(formerly EA Floods Programme)*	Climate Change Adaptation	Investment into flood and coastal erosion risk management programmes	£1,023.80	£1,091.17	**£2,114.97**	–	£1,097.21*	**£1,097.21**	220,000	Number of properties better protected
Green Homes Grant voucher	Energy Efficiency	Provides vouchers to homeowners to improve the energy efficiency of housing stock	£70.14	£212.66	**£282.80**	–	–	**–**	0.72	MtCO2e of GHG avoided
Home Upgrade Grant	Energy Efficiency	Funding for property owners and private renters to improve their home's energy efficiency	£0.00	£152.68	**£152.68**	–	£48.85	**£48.85**	0.03	MtCO2e of GHG avoided

*Please note this amount is provisional and may change slightly after departmental accounting processes

Name	Green expenditure category	Expenditure description	2022 allocation (£ million)			2023 allocation (£ million)			Programme share of impacts (2022 allocation)	
			2020-21	2021-22	Total	2021-22	2022-23	Total	Headline impact	
Local Authority Delivery	Energy Efficiency	Subsidies for local authorities to improve the energy efficiency of housing stock	£502.80	£208.87	**£711.67**	–	(£175.72)	**(£175.72)**	0.49	MtCO2e of GHG avoided
Public Sector Decarbonisation Scheme	Energy Efficiency	Grants for public sector bodies to fund heat decarbonisation and energy efficiency measures	£575.21	£403.07	**£978.28**	–	£428.40	**£428.40**	0.11	MtCO2e of GHG avoided
Social Housing Decarbonisation Fund	Energy Efficiency	Fund supporting the installation of energy performance measures in social homes in England	£62.32	£163.82	**£226.14**	–	£1.28	**£1.28**	5,846	Number of measures installed
Agri-environment schemes	Living & Natural Resources	A collection of agricultural environmental and forestry schemes including: Countryside Stewardship Offer, Future Plant Health, and Environmental Land Management	£100.00	£249.00	**£349.00**	–	£483.00*	**£483.00**	–	–
Green Recovery Challenge Fund	Living & Natural Resources	Funding to establish nature recovery against England	£40.00	£40.00	**£80.00**	–	–	**–**	1,200,000	Trees planted
Investments in Forests and Sustainable Land Use (ODA)	Living & Natural Resources	To support public-private partnerships that can work collaboratively to reduce deforestation internationally	£13.61	£10.19	**£23.80**	–	£21.48	**£21.48**	10.72	MtCO2e of GHG avoided (ODA)
Nature for Climate Fund	Living & Natural Resources	Fund supporting tree-planting and peat-restoration schemes in England	£30.19	£69.83	**£100.02**	–	£106.68*	**£106.68**	0.75	MtCO2e of GHG avoided
CCS Infrastructure	Pollution Prevention & Control	Fund to support capital expenditure on transport and storage networks and industrial carbon capture projects	£0.00	£9.60	**£9.60**	–	£10.00	**£10.00**	–	–

*Please note this amount is provisional and may change slightly after departmental accounting processes

Name	Green expenditure category	Expenditure description	2022 allocation (£ million)			2023 allocation (£ million)			Programme share of impacts (2022 allocation)	
			2020-21	2021-22	Total	2021-22	2022-23	Total	Headline impact	
Heat Networks Transformation Programme	Renewable Energy	Capital grants for the development of new and existing low and zero-carbon heat networks	£92.80	£142.13	**£234.93**	–	£56.59	**£56.59**	–	–
Net Zero Innovation Portfolio R&D	Renewable Energy	Funding for low-carbon technologies research	£106.75	£99.26	**£206.01**	–	£164.36	**£164.36**	–	–
Renewable Heat Incentive	Renewable Energy	Funding to help businesses, homes and other organisations meet the cost of installing renewable heat technologies	£848.14	£941.60	**£1,789.74**	–	£1,001.88	**£1,001.88**	6.2	MtCO2e of GHG avoided
Global Environment Facility 7th replenishment (ODA)	Multiple	Funding to support developing countries to implement international agreements on climate change, biodiversity, land degradation and harmful chemicals	£37.50	£37.50	**£75.00**	–	£37.50	**£37.50**	47.00	MtCO2e of GHG avoided (ODA)
Green Climate Fund first replenishment (ODA)	Multiple	The UK's share of the Green Climate Fund – a UN fund to help developing countries develop sustainability.	£250.00	£29.19	**£279.19**	£72.51	£274.00	**£346.51**	75.00	MtCO2e of GHG avoided (ODA)
International Climate Finance – DESNZ (ODA)	Multiple	DESNZ share of international aid for environmental related issues	£580.47	£431.77	**£1,012.24**	–	£242.28	**£242.28**	81.00	MtCO2e of GHG avoided (ODA)

Name	Green expenditure category	Expenditure description	2022 allocation (£ million)			2023 allocation (£ million)			Programme share of impacts (2022 allocation)
			2020-21	2021-22	Total	2021-22	2022-23	Total	Headline impact
Expenditures below this line only feature in the 2023 allocation									
Advanced Propulsion Centre	Clean Transportation	Funding for body that provides grants to support the automotive industry in decarbonisation	–	–	**–**	£75.00	–	**£75.00**	Impacts for policies first financed in the 2023 allocation will be reported on in the 2025 Impact Report.
Air quality transportation projects	Clean Transportation	Consists of Joint Air Quality Unit, Air Quality Worst Cities Fund and Joint Air Quality NO2 Plan. These programmes work with local authorities to help them reach their national air pollution targets.	–	–	**–**	£21.56	£21.72	**£43.29**	
Automotive Transformation Fund	Clean Transportation	Funding through the Advanced Propulsion Centre to fund the manufacturing of zero emission vehicles	–	–	**–**	£63.00	–	**£63.00**	
City Region Sustainable Transport Settlements (CRSTS)	Clean Transportation	Transport infrastructure funding for cities. Only green projects included in allocation.	–	–	**–**	£43.48	£158.36	**£201.84**	
Energy Savings Trust	Clean Transportation	Transport related funding for the Energy Savings Trust	–	–	**–**	£3.10	£3.04	**£6.14**	
Hydrogen for Transport Programme	Clean Transportation	Programme funding new and upgraded publicly accessible hydrogen refuelling stations, upgrading existing stations and increasing the uptake of fuel cell EVs.	–	–	**–**	£5.96	£0.07	**£6.03**	
Local EV Infrastructure Fund	Clean Transportation	Funding for local governments to build charge point infrastructure	–	–	**–**	£0.13	£41.63	£41.76	

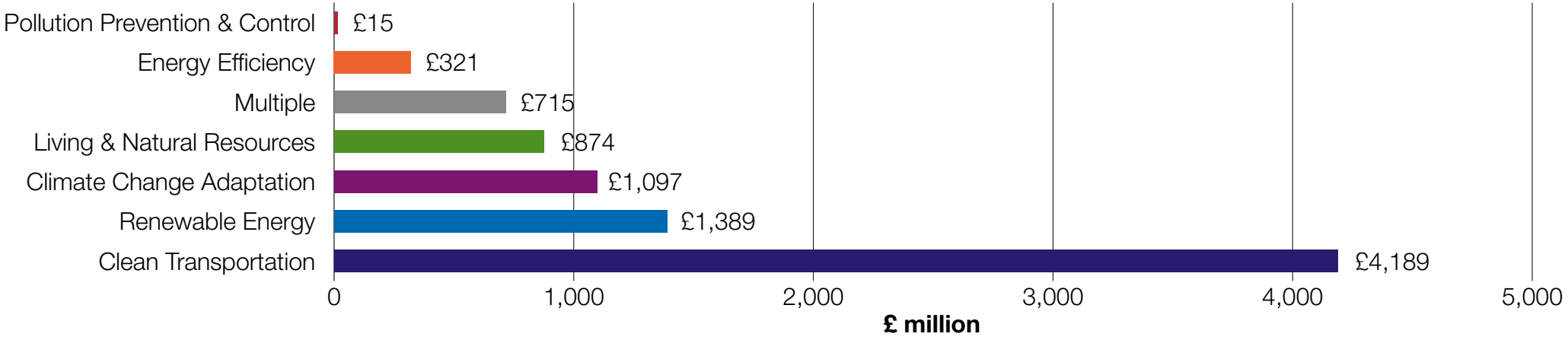
Name	Green expenditure category	Expenditure description	2022 allocation (£ million)			2023 allocation (£ million)			Programme share of impacts (2022 allocation)
			2020-21	2021-22	Total	2021-22	2022-23	Total	Headline impact
Low Carbon Vehicle Zemo Partnership	Clean Transportation	Body that encourages collaboration between government and industry to promote cutting emissions in transport	–	–	–	£0.58	£0.59	**£1.16**	Impacts for policies first financed in the 2023 allocation will be reported on in the 2025 Impact Report.
Low Emission Taxi Scheme	Clean Transportation	Plug in grants to subsidise the purchase of electric taxis	–	–	–	£13.34	£13.62	**£26.96**	
Nexus metrofleet	Clean Transportation	Funding to replace the rolling stock for the Tyne and Wear light rail system	–	–	–	£54.00	£56.75	**£110.75**	
Office for Zero Emission Vehicles funding	Clean Transportation	Admin spend for the OZEV, a body that funds zero emission vehicle technology, with most funding going towards electronic charge points.	–	–	–	£2.68	£2.87	**£5.55**	
OLEV Grant System	Clean Transportation	Legacy grants through the Office for Low Emission Vehicles (now Zero Emission Vehicles), Grants focus on funding EV infrastructure	–	–	–	£4.85	£1.54	**£6.39**	
Plug in 2 Wheeler Grant	Clean Transportation	Grants for that contribute to the cost of electric 2 wheel vehicles	–	–	–	£3.71	£1.04	**£4.75**	
Transforming cities fund (Nexus metroflow)	Clean Transportation	The electrification of a freight rail line in South Tyneside to allow it to run metro trains	–	–	–	£20.10	£72.89	**£92.99**	
Transport decarbonisation R&D	Clean Transportation	Funding for industry projects in low emission vehicle and charging infrastructure technologies that support the decarbonisation of UK transport.	–	–	–	£22.35	£9.03	**£31.38**	

Name	Green expenditure category	Expenditure description	2022 allocation (£ million)			2023 allocation (£ million)			Programme share of impacts (2022 allocation)
			2020-21	2021-22	Total	2021-22	2022-23	Total	Headline impact
Workplace Chargepoints	Clean Transportation	Voucher system to provide funding for EV charge points at workplaces	–	–	**–**	£5.80	£5.21	**£11.01**	Impacts for policies first financed in the 2023 allocation will be reported on in the 2025 Impact Report.
Zero Emission Road Freight Trials (ZERFT)	Clean Transportation	A competition providing funding for research into ways to decarbonise HGV transport	–	–	**–**	£17.94	£1.05	**£18.99**	
Industrial Energy Transformation Fund (IETF)	Energy Efficiency	Funds energy efficiency and low carbon measures at businesses	–	–	**–**	–	£18.07	**18.07**	
ARCAN – Africa Regional Climate and Nature Programme (ODA)	Living and Natural Resources	Increased resilience of African countries to climate shocks, as well as promoting environmentally sound development	–	–	**–**	£12.53	£18.38	**£30.91**	
DEFRA ODA expenditures	Living and Natural Resources	DEFRA's share of ODA funding	–	–	**–**	£90.71	£128.92	**£219.63**	
DEFRA Green Finance	Living & Natural Resources	Defra scheme to promote private finance investing into biodiversity and environmental measures	–	–	**–**	£2.98	£9.35	**£12.33**	
Emission Trading Scheme (ETS)	Pollution Prevention and Control	Funding to support the UK's emission trading scheme to promote the broad reduction of carbon emissions by businesses	–	–	**–**	–	£5.20	**£5.20**	
Boiler Upgrade Scheme (BUS)	Renewable Energy	Funding to replace fossil fuel boilers with biomass and heat pumps	–	–	**–**	–	£62.03	**£62.03**	
Net Zero Hydrogen Fund (NZHF)	Renewable Energy	Funding to promote the production of low carbon hydrogen	–	–	**–**	–	£14.32	**£14.32**	

Name	Green expenditure category	Expenditure description	2022 allocation (£ million)			2023 allocation (£ million)			Programme share of impacts (2022 allocation)
			2020-21	2021-22	Total	2021-22	2022-23	Total	Headline impact
Offshore Wind Manufacturing Investment Fund	Renewable Energy	Funding to support manufacturing in offshore wind supply chains	–	–	**–**	–	£58.00	**£58.00**	Impacts for policies first financed in the 2023 allocation will be reported on in the 2025 Impact Report.
TEA – Transforming Energy Access	Renewable Energy	Funding for clean energy programmes in developing countries	–	–	**–**	£12.56	£19.56	**£32.12**	
Strategic Priorities Fund	Multiple	The environmental portion of the Strategic Priorities research fund	–	–	**–**	£47.10	£41.70	**£88.80**	
Totals			£7,994.54	£8,393.46	**£16,388.00**	£470.24	£8,130.75	**£8,600.99**	

All negative allocation figures (presented in brackets) in the 2023 allocation indicate underspend in a given expenditure against the stated 2022 allocation. For simplicity and transparency, these figures are presented as part of the 2023 allocation rather than retrospectively changing the 2022 allocation figures.

Chart 2: 2023 Allocation amount split by category



Programme impacts from 2021-22 allocation

Programme impacts from 2021-22 allocation

Methodology for calculating impacts

For the first time, this Impact Report presents data from a wide range of the government's green expenditures. Reporting data on the impact of the overall Programme also allows investors to determine how much their own investments into the Programme contribute to delivering net zero, tackling climate change and supporting the environment.

This section sets out the methodology used to calculate the impacts of the Programme. Given the range of data and novel reporting method, a number of steps were taken to ensure coherence in the methodology of the impact analysis.

Data sources

The report uses only impact analysis that has already been conducted and published, where available, by UK government departments or by the organisations that are the final recipients of the allocated financing. It does not seek to calculate or present new impact analysis.[11]

The four spending departments participating in the Green Financing Programme last year (DEFRA, DESNZ, DfT, and FCDO) provided the source data for this report using, where available, publicly available impact information for their eligible green expenditures. If appraisal or evaluation data was not yet publicly available for a policy, departments shared estimates from internal evaluations or business cases, where feasible and appropriate. HMT has not independently assessed or confirmed the impact of eligible expenditures.

As well as reporting on the environmental impacts, this report provides, where available, social co-benefit data such as the number of green jobs supported or the number of households benefitting from a specific expenditure.

The use of publicly available data or departmental analysis means that the source data for this Impact Report have been through each department's analytical processes, including a quality assurance process prior to policymaking or publication. UK government analysis is informed by best-in-class guidance including the Green Book (project appraisal), the Magenta Book (project evaluation) and the Aqua Book (quality assurance).[12] [13] [14]

11 The methodology employed here is focused on the specific impacts of the Programme and therefore not consistent and comparable with the estimated policy impacts in *Updated energy and emissions projections 2021 to 2040*, BEIS, October 2022.
12 *The Green Book*, HM Treasury, 2022
13 *The Magenta Book*, HM Treasury, 2020
14 *The Aqua Book*, HM Treasury, 2015

Departments also provided the most recent finance data for each expenditure, pertaining to the same period for which impact data was provided. Where possible, actual spend data is used. Where this is not available, departments provided their publicly available planned spend data.

Pro-rating the Programme's impact

To estimate the Programme's impact within a given expenditure, this report uses a straight-line pro-rata approach as follows:

- for a given expenditure, departments provided impact data and the total spend corresponding to the impact reporting period
- using this and the reported Programme allocation, the share of Programme funding relative to the total spend for that expenditure is calculated
- that calculation gives a pro-rated fraction, which is multiplied by that expenditure's published overall impact data to estimate the share of the impact attributable to the Programme for that expenditure

This method assumes that impacts of funding can be apportioned in a straight-line, i.e., the impact from funding an expenditure is the same regardless of when within the expenditure lifetime the funding has been provided. This avoids discrepancies from using a varied profile of funding over different years and making policy-level assumptions about the time profile of impacts being different across a time period. All the pro-rated data presented in this report are rounded to the same precision as the source data for that policy, where feasible. For any calculations the original unrounded data is used.

A worked example of the pro-rata approach: Zero Emission Buses

The Programme provided £270.29 million for two zero emission bus schemes (All-Electric Bus City and Zero Emission Bus Regional Areas) in 2020-21 and 2021-22. Overall, the government provided a total of £320 million of funding for these schemes over the same time period. The Programme's share of the government's total financing for the schemes was therefore 84% (£270.29 million/£320 million).

DfT estimates that these schemes saved 1.55 MtCO2e of GHG over the 2020-21 and 2021-22 financial years. From this, HM Treasury estimates that the Programme's financing towards zero emission bus schemes resulted in 1.31 MtCO2e of GHG emissions avoided (1.31 = 84% * 1.55Mt).

Data challenges and alternative approaches for estimating Programme impact

In some instances, it has not been possible to attribute environmental impacts or social co-benefits directly to policies financed by the Programme, for reasons including:

- there is a lag between allocated financing and policy operationalisation
- evaluation has not yet concluded for multi-year programmes
- the UK contributes to global funds with multiple donor countries and investment projects
- interventions can be unexpectedly affected by broader events or trends and their impact cannot be accurately estimated – for example, walking and cycling patterns increased during the COVID pandemic and the impact of DfT's Cycling and Walking Fund during this period cannot be disentangled from this

Where possible, the report seeks to demonstrate the likely impact of a policy using alternative forms of evidence:

- ex-ante estimates of outputs or impacts, if available
- evidence of a scheme's overall impact, without attempting to delineate the Programme's contribution, if available

Other assumptions

More than one method may have been used by departments to measure and analyse climate and environmental impacts across the 27 expenditures in the first allocation of the funds raised under the Programme. The analysis for each expenditure is conducted by an analytical team within its respective department, or sometimes outsourced to an external organisation. Each expenditure or department's analysis may use different sets of estimates or assumptions. As is standard with microeconomic analysis, the analyses of the individual expenditures assume all else is equal.

Aggregation to Programme-level impact

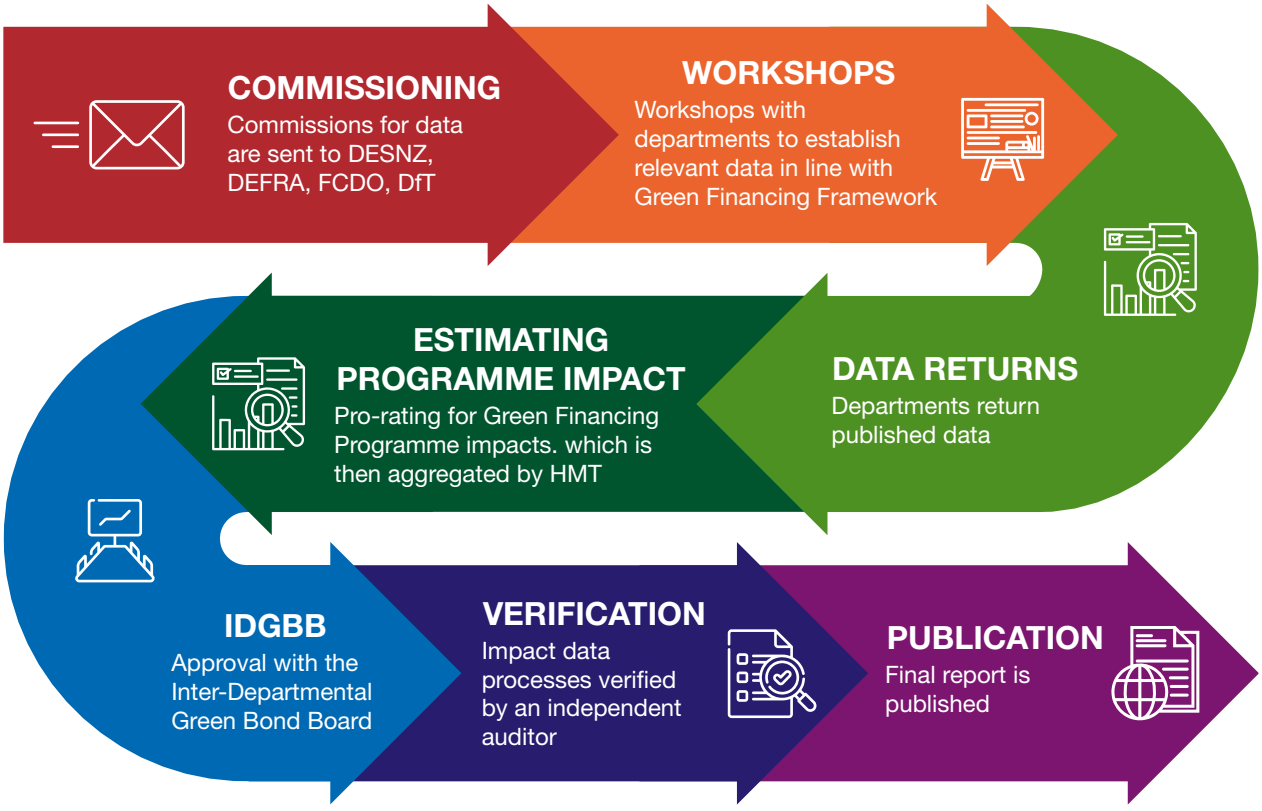
In line with investor preferences for an overview of the overall impact of the Programme, the report assumes that individual expenditure impacts can be aggregated. This is done by adding together the Programme's impact for each expenditure, where the data is available. Aggregated impacts are presented for the six Programme expenditure categories (and for those expenditures across multiple categories) and for the overall Programme, for selected metrics. Aggregated metrics were chosen for data availability and include environmental impact and social co-benefits.

The aggregated Programme impact is best understood as the lifetime impact of one year of Programme financing. It includes all realised impacts so far and all estimated future impacts of policies financed by the 2022 Programme allocation, pro-rated for the Programme's

share of total financing for those policies. Pro-rating policy impacts removes the risk of double counting impacts in future allocations. This method of presenting Programme impacts may underestimate the impacts of the 2022 allocation: for example, if policy evaluations subsequently demonstrate greater-than-expected impacts due to falling costs, improved technology efficiency, or increased policy uptake; or if improved data collection methods allow for more impacts to be quantified.

Policies with international spending or contributions to global funds, i.e., those that are part of UK ODA, have not been included in the Programme-level aggregation. This is to reflect the additional challenge of attributing impacts from multilateral, multi-year and multi-project schemes to a specific funding source and year. An estimate of the Programme's share of these policies' impacts is presented separately, using the same pro-rata and aggregation methodology. Rail impacts have also been excluded from the aggregation as they have not been pro-rated to find the Programme share of impacts. This is because of the difficulties of matching the overall spending data to the granular project level impact data.

In every instance, the report has utilised the most cautious possible approach for attributing environmental impacts and social co-benefits to the Programme. The evidence should therefore be considered a lower bound for the likely impact of the Programme.



Stakeholder Discussion Forum

As outlined in the Green Financing Framework, the Stakeholder Discussion Forum (SDF) provides expert opinion and specialist knowledge on technical aspects of the initiative to issue green gilts and green aspects of retail savings products. HMT and the DMO engaged with the SDF ahead of publication of this report and will continue to do so in future Programme reporting rounds.

The following organisations comprise the membership of the SDF: Centre for Energy Policy, University of Strathclyde; Climate Bonds Initiative; Grantham Research Institute on Climate Change and the Environment, LSE; Green Finance Institute; Impact Investing Institute; International Capital Market Association; Saïd Business School, University of Oxford; and United Nations-supported Principles for Responsible Investment.

Programme aggregated impacts

Table 3: Programme total environmental impact, 2021-22 allocation, selected metrics[15]

	Programme total
MtCO2e of GHG avoided	9.61
Trees planted	1,200,000
EV charging points installed	226,947

Table 4: Programme total social co-benefits, 2021-22 allocation, selected metrics

	Programme total
Jobs supported	31,100

Table 5: Programme international impact, 2021-22 allocation, selected metrics[16]

	ODA total
MtCO2e of GHG avoided (ODA)	214
Number of beneficiaries	52,600,000

15 ODA projects have been excluded from the Programme aggregations of environmental impacts and social co-benefits. This is to reflect the challenge of attributing impacts from multilateral, multi-year and multi-project schemes to a specific funding source and year.

16 Includes the following ODA projects in the Programme financial year 2021-22 allocation: Global Environment Facility – 7th replenishment; Green Climate Fund First Replenishment; DESNZ International Climate Finance; Investments in Sustainable Forests and Land Use.

Clean Transportation

In 2021 transport contributed to 26% of the UK's territorial GHG emissions, the largest of any sector.[17] Transport emissions have also been one of the hardest to cut, with total emissions falling 48% from 1990 to 2021 and transport specific emissions only falling 15% in the same timeframe.[18] Because of the importance of cutting transport emissions and the key role of government in this area, Clean Transportation is the largest green expenditure category in this year's Allocation Report, with most of the funding allocated to electric rail services and infrastructure.

One of the key low carbon forms of transport in the UK is electric rail and the high level of spend allocated to it reflects that. Electric rail is included in the Programme and includes funding to enhance, maintain and renew our existing electric rail links. Other spend is allocated towards upgrading our rail system, with projects such as the Midland Main Line Upgrade or Transpennine Route Upgrade which will electrify large portions of railway to reduce the usage of diesel trains.

Also included in this category is the DfT cycling and walking funding, this is a collection of funds which supports various ways to encourage greater use of walking and cycling for everyday journeys. Included is funding for cycle paths as well as support for e-cycles. More detail about this is available in the second Cycling and Walking Investment Strategy, which outlines the government's ambitions for walking and cycling up to 2040.[19]

Over 80% of UK transport carbon emissions came from road travel in 2021.[20] While electric rail and cycling funding can displace some of these emissions there is still a need to decarbonise cars, buses and road freight. Zero emission transport expenditures such as the Zero Emission Buses scheme, the Zero Emission Road Freight Trials, and the Local Electric Vehicle Infrastructure Fund. These policies aim to reduce emissions in road transportation, by funding infrastructure needed for EVs and providing research funding to ensure zero emission technology becomes commercially viable. The government aims to create self-sustaining markets for zero emission transportation, and therefore steps away from direct consumer subsidies, such as the plug in car grant, once viable commercial markets are created.

17 *2021 UK Greenhouse Gas Emissions, Final Figures*, BEIS, February 2023
18 *Powering Up Britain*, DESNZ, April 2023
19 *The second cycling and walking investment strategy*, DfT, 2023
20 *2021 UK Greenhouse Gas Emissions, Final Figures*, BEIS, February 2023

Policies in this category

- Cycling & walking fund*
- Electric Vehicle Homecharge Scheme
- Low Carbon Vehicles Innovation Platform (VIP) R&D – Innovate UK*
- On Street Residential Chargepoint Scheme (ORCS)
- Plug in car grant
- Plug in van grant
- Rail enhancement schemes**
- Track maintenance*
- Track Renewal*
- Zero emissions buses

* No available impact data
** Not included in the aggregated Programme impacts

Environmental impacts attributable to the Programme

Metric	Programme impact	Impact period	Contributing policies
Charging devices installed	226,947	Policy impact in financial years 2020-22	EVHS ORCS
EVs funded	212,312	Policy impact in financial years 2020-22	Plug in car grant Plug in van grant
GHG emissions reduced	1.31 MtCO2e	Estimated lifetime impact of policy	Zero emission buses
NO2 reduced	612 tonnes	Estimated lifetime impact of policy	Zero emission buses
Particulate matter reduced	16 tonnes	Estimated lifetime impact of policy	Zero emission buses

Cycling and walking funding (Active travel programme)

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Clean Transportation	DfT	304.98	279.22	584.20

Summary

In July 2020 the government launched ambitious plans to boost cycling and walking, with a vision for half of all journeys in towns and cities to be walked or cycled by 2030. This was supported by a £2 billion package of new funding for active travel over five years – the largest ever investment in cycling and walking.

Cycling and walking can help tackle some of the most challenging issues in the UK, not just climate change, but improving air quality, health and wellbeing, addressing inequalities, and tackling congestion and noise pollution.

The second Cycling and Walking Investment Strategy (2023) set ambitious delivery targets for 2025:

- increase the percentage of short journeys in towns and cities that are walked or cycled from 41% in 2018 to 2019 to 46% in 2025
- increase walking activity, where walking activity is measured as the total number of walking stages per person per year, to 365 stages per person per year in 2025
- double cycling, where cycling activity is measured as the estimated total number of cycling stages made each year, from 0.8 billion stages in 2013 to 1.6 billion stages in 2025
- increase the percentage of children aged 5 to 10 who usually walk to school from 49% in 2014 to 55% in 2025

The Green Financing Programme has contributed to funding several cycling and walking programmes:

- Local Authority Infrastructure
- Local Authority Capacity Building Fund
- National Cycle Network
- Bikeability
- National Cycling and Walking
- E-Bike Support

Programme contribution to the policy

The Green Financing Programme allocated a total of £584.20 million to various cycling and walking programmes managed by DfT over financial years 2020-21 and 2021-22.

Programme share of policy impact

It has not yet been possible to isolate the specific impacts of walking and cycling interventions from the period funded by the Green Financing Programme. This is due to the substantial impact of the COVID pandemic and lockdowns on walking and cycling trips. Active Travel England are conducting ongoing evaluation projects, including for the Active Travel Portfolio, that will provide evidence for the financed period. The publication of these will start from 2023. Further evidence will also become available in the next Cycling & Walking Investment Strategy (CWIS) report to Parliament by March 2025.

Data sources and notes

Delivery targets taken from '*The second cycling and walking investment strategy*', updated in March 2023.

Electric Vehicle Homecharge Scheme (Home Chargers)

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Clean Transportation	DfT	24.43	54.91	79.34

Summary

The EVHS provides grant funding for up to 75% of the cost of installing EV charging devices at domestic properties across the UK. The grant funding was capped at £350 per chargepoint. EVHS closed in March 2022 and was replaced by the Electric Vehicle Chargepoint Grants.

Programme contribution to the policy

EVHS grants provided from April 2020 to March 2022 totalled £82.83 million, of which £79.34 million (95.8%) was financed via the Programme allocation raised in 2021-22.

Programme share of policy impact

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Environmental impacts					
Charging devices installed	224,965	April 2020 – March 2022	Ex post	Recorded	

Data sources and notes

Impact data taken from '*Electric vehicle charging device grant scheme statistics: July 2023*'.

Total spending data taken from the above source.

These quarterly statistics are badged as Experimental Statistics. Users should be aware of the status and cautions of these series, which will vary for each statistic and will be explained in each publication. The statistics are new but still subject to testing in terms of their volatility and ability to meet customer needs. They do not necessarily meet the rigorous quality standards of National Statistics, for example with administrative data. Further details on the limitations of Experimental Statistics can be found at the Office for Statistics Regulation's website.

Low Carbon Vehicles Innovation Platform (VIP) R&D – Innovate UK

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Clean Transportation	DfT	51.22	47.00	98.22

Summary

Investment in research & development (R&D) is key to the government's mission of putting the UK at the forefront of the design, manufacture, and use of ZEVs. These technologies can help deliver the UK's transport decarbonisation goals and anchor economic growth in the UK.

Government is going further and faster to decarbonise transport by phasing out the sale of new petrol and diesel cars and vans by 2030, and, from 2035, all new cars and vans must be zero emissions at the tailpipe. Between 2030 and 2035, any new cars and vans sold that emit from the tailpipe must have significant zero emission capability.

This Programme is finding solutions to uptake challenges through R&D. It complements a wider package of government support for decarbonising road transport, including through the Advanced Propulsion Centre, Faraday Battery, and Driving the Electric Revolution Industrial Strategy Challenges.

The programme is co-funded with industry and has created a diverse range of high-quality projects which have advanced technologies and strengthened UK industrial and supply chain capability. The programme has supported vehicle manufacturers, technology companies and academia.

Programme contribution to policy

The Green Financing Programme allocated a total of £98.22 million to Low Carbon VIP R&D in financial years 2020-21 and 2021-22.

Overall policy impact

There is no published evaluation for this policy.

On-Street Residential Chargepoint Scheme (On Street Chargers Grant)

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Clean Transportation	DfT	6.03	20.58	26.61

Summary

Local authorities have a crucial role to play in enabling the transition to EVs, including:

- proactively supporting and delivering the rollout of electric vehicle chargepoints
- helping to ensure the transition is integrated into wider local transport and community needs

The purpose of ORCS is to increase the availability of on-street chargepoints in residential streets where off-street parking is not available, thereby ensuring that on-street parking is not a barrier to realising the benefits of owning an EV.

The scheme gives local authorities access to grant funding that can be used to part-fund the procurement and installation of on-street EV chargepoint infrastructure for residential needs.

Programme contribution to the policy

As of 1 April 2023, for financial years 2020-21 and 2021-22, the amount of funding committed by ORCS was £32.58 million, of which the Programme provided £26.61 million (81.47%).

Programme share of policy impact

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Environmental impacts					
Charging devices installed	1,982	April 2020 – March 2022	Ex post	Recorded	
Additional charging devices funded	5,517	April 2020 – March 2022	Ex post	Recorded	Devices funded but not yet installed by the end of this period

Data sources and notes

Impact data taken from '*Electric vehicle charging device grant scheme statistics: July 2023*'.

Total spending data taken from the above source.

These quarterly statistics are badged as Experimental Statistics. Users should be aware of the status and cautions of these series, which will vary for each statistic and will be explained in each publication. The statistics are new but still subject to testing in terms of their volatility and ability to meet customer needs. They do not necessarily meet the rigorous quality standards of National Statistics, for example with administrative data. Further details on the limitations of Experimental Statistics can be found at the Office for Statistics Regulation's website.

Plug in car grant

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Clean Transportation	DfT	216.77	283.35	500.12

Summary

The plug in car grant (PICG) was launched in 2011. It aimed to encourage the purchase of low-carbon vehicles by subsidising the purchase of eligible cars with a grant to reduce the price, narrowing the price difference between EVs and internal combustion engine vehicles. The objective of the PICG was to stimulate the development of a self-sustaining low and ZEVs market.

In 2011 the scheme provided a grant of 25% of the total value for eligible cars, up to a maximum of £5,000. As the market developed and prices became less of a barrier to vehicle replacement, the grant was reduced in steps; in December 2021, it was reduced to a maximum of £1,500, with a price cap of £32,000 for eligible vehicles. The category of vehicles eligible for the scheme also narrowed over its duration, to focus on ZEVs from March 2020. The Programme only financed the plug in car grant from the point at which its scope narrowed to ZEVs.

The government closed the PICG scheme to new orders in June 2022, judging that it had succeeded in creating a mature market for ultra-low emission cars. Fully electric car sales had risen by 70% in the preceding year, representing one in six new cars joining UK roads by the middle of 2022.

An estimate of the amount of GHG emissions avoided through the grant was calculated by Frontier Economics for the "*OZEV portfolio level retrospective evaluation, May 2022*". This looked at all electric cars funded through the PICG between January 2011 and November 2022. It apportioned the amount of lifetime GHG avoided from these vehicles based on an estimate of how much of EV demand could be allocated to the grants. Frontier Economics estimated a lifetime reduction in GHGs of 0.58-5.84 MtCO2e.

Programme contribution to the policy

Between April 2020 and March 2022, the grant funding for the PICG was £688.42 million, of which the Programme provided £500.12 million (72.7%).

Programme share of policy impact

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Environmental impacts					
Number of electric vehicles funded	180,595	April 2020 – March 2022	Ex post	Record	

Data sources and notes

Impact data taken from internal DfT estimates.

Total spend data taken from internal DfT estimates.

The number of EVs funded has been taken from data on completed order numbers according to payment date covering financial years 2020-21 and 2021-22.

Plug in van grant

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Clean Transportation	DfT	82.70	99.27	181.97

Summary

The plug in van grant (PIVG) was launched in 2012 to help bridge the price gap between the cost of ultra-low emission vans and diesel vans. It was extended to trucks, also referred to as heavy goods vehicles (HGVs), in 2016.

Programme contribution to the policy

The funding for the PIVG was £184 million from April 2020 to March 2022, of which the Programme provided £181.97 million (98.9%).

Programme share of policy impact

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Environmental impacts					
Number of electric vehicles funded	31,717	April 2020 – March 2022	Ex post	Recorded	

Data sources and notes

Impact data taken from internal DfT estimates.

Total spend data taken from internal DfT estimates.

The number of EVs funded has been taken from data on completed order numbers according to payment date covering financial years 2020-21 and 2021-22.

Rail enhancement schemes

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Clean Transportation	DfT	679.30	772.00	1,451.30

Summary

This is umbrella funding for various rail electrifications and expansions financed in Spending Review 21. The Programme has funded electric rail projects only and has not financed any HS2 spend. The spend strategically aligns to decarbonise the rail network, among other objectives of the department and the government. This expenditure includes any named schemes that are within the Rail Network Enhancement Pipeline (RNEP)s. Some of the schemes are:

- Interventions through Midland Main Line (MML) improves line speed, enhances capacity and expands electrification on the route to enable electric and bi-mode trains to operate replacing diesel trains. (Bi-mode trains to operate from 2024).
- Transpennine Route Upgrade (TRU) electrifies and improves the network capability between Manchester and York via Huddersfield and Leeds, aiming at improving connectivity between the main economic centres of the North. These investments will improve punctuality, result in faster journeys, enable the operation of an enhanced timetable specification for inter-urban and local passenger rail services, and provide additional capability for freight.
- Investments via Wigan-Bolton scheme electrifies the route between West Coast Main Line and the Bolton-Manchester commuter corridor. The project brings significant investment to the North of England as part of the Government's levelling up agenda and is a key priority for this governments rail portfolio.

Programme contribution to the policy

It is not possible to estimate robustly the Programme share of individual rail enhancement project environmental impacts due to the differing construction timelines of the underlying railway schemes that make up the expenditure. Rail impact metrics are instead presented as unadjusted impacts from a portion of the projects at least partially funded by the Programme. They do not reflect estimates of the Programme impact and have not been included in the aggregation of the Clean Transportation category impacts or Programme total impacts.

Overall policy impact

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Environmental impacts					
GHG emissions reduced/avoided	0.003778 MtCO2e	Annual	Ex ante	Estimate	Wigan – Bolton electrification
Project lifetime reduced CO_2 emissions	0.22668 MtCO2e	Project lifetime	Ex ante	Estimate	Wigan – Bolton electrification
Reduction of air pollutants – Nitrogen oxides	85.2 million litres	Project lifetime	Ex ante	Estimate	Wigan – Bolton electrification
GHG emissions reduced/avoided	0.062 MtCO2e	Annual	Ex ante	Estimate	Midland mainline electrification – phase 1
Project lifetime reduced CO_2 emissions	0.1082 MtCO2e	Annual	Ex ante	Estimate	Transpennine Route Upgrade electrification
Reduction of air pollutants – Particulate matter	540 tonnes	Project lifetime	Ex ante	Estimate	Transpennine Route Upgrade electrification
Reduction of air pollutants – Nitrogen oxides	19,260 tonnes	Project lifetime	Ex ante	Estimate	Transpennine Route Upgrade electrification

Data sources and notes

Impact data from internal DfT estimates.

All annual impacts are per year over the lifetime of the project, these benefits are only realised once the project goes live and not during construction.

Track maintenance

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Clean Transportation	DfT	599.59	662.03	1,261.62

Summary

Funding for the operations, maintenance and renewal of all railway infrastructure is provided by government via the Periodic Review process. This excludes enhancements to the network. The funding is provided alongside very high-level government objectives. It is for Network Rail as the infrastructure owner and manager, under the expert oversight of the independent regulator, the Office of Rail and Road, which owns the Periodic Review process, to determine the best specific allocation of its funding over each five-year funding period.

Programme contribution to the policy

The methodology used by Network Rail to produce Programme spend data on 'green' infrastructure and projects looked at already-electrified infrastructure, on the basis that this allows a relatively green method of travel in comparison to other modes; specifically, the maintenance and renewal of electrified infrastructure.

Overall policy impact

Electrification of rail infrastructure is conducted for many reasons in addition to climate and environmental objectives. Funding allocation and reporting processes are primarily led by asset management requirements. There are therefore no existing reporting structures in place to produce environmental or social co-benefit data against spend on the maintenance and renewal of already-electrified infrastructure for any asset category (e.g. track, signalling and structures).

Since the launch of Network Rail's Environmental Sustainability Strategy in 2020, there has been a focus on improving the data that Network Rail collects to inform its strategy to reduce carbon emissions, air quality impacts and improve social value. Network Rail is investing in a comprehensive data measurement and collection exercise undertaken through a costed programme over the next 12 months:

- Carbon impact data – work done to date to understand carbon impacts has been delivered through whole life carbon assessments on digital versus conventional signalling and overhead line electrification. Network Rail is exploring options to establish carbon baselines for other assets such as track, and the potential to establish an overarching carbon baseline for major rail asset categories.

- Air pollution and social co-benefits– the Rail Social Value Tool exists to measure the social value of the rail industry's investments and infrastructure projects and day-to-day operations. Applying this to achieve the desired granularity of impact data will require a comprehensive review of the current system.

Track renewal

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Clean Transportation	DfT	1,645.79	1,662.47	3,308.26

Summary

Funding for the operations, maintenance and renewal of all railway infrastructure is provided by government via the Periodic Review process. This excludes enhancements to the network. The funding is provided alongside very high-level government objectives. It is for Network Rail as the infrastructure owner and manager, under the expert oversight of the independent regulator, the Office of Rail and Road, which owns the Periodic Review process, to determine the best specific allocation of its funding over each 5-year funding period.

Programme contribution to the policy

The methodology used by Network Rail to produce Programme spend data on 'green' infrastructure and projects looked at already-electrified infrastructure, on the basis that this allows a relatively green method of travel in comparison to other modes; specifically, the maintenance and renewal of electrified infrastructure.

Overall policy impact

Electrification of rail infrastructure is conducted for many reasons in addition to climate and environmental objectives. Funding allocation and reporting processes are primarily led by asset management requirements. There are therefore no existing reporting structures in place to produce environmental or social co-benefit data against spend on the maintenance and renewal of already-electrified infrastructure for any asset category (e.g. track, signalling and structures).

Since the launch of Network Rail's Environmental Sustainability Strategy in 2020, there has been a focus on improving the data that Network Rail collects to inform its strategy to reduce carbon emissions, air quality impacts and improve social value. Network Rail is investing in a comprehensive data measurement and collection exercise undertaken through a costed programme over the next 12 months:

- Carbon impact data – work done to date to understand carbon impacts has been delivered through whole life carbon assessments on digital versus conventional signalling and overhead line electrification. Network Rail is exploring options to establish carbon baselines for other assets such as track, and the potential to establish an overarching carbon baseline for major rail asset categories.

- Air pollution and social co-benefits – the Rail Social Value Tool exists to measure the social value of the rail industry's investments and infrastructure projects and day-to-day operations. Applying this to achieve the desired granularity of impact data will require a comprehensive review of the current system.

Zero emission buses

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Clean Transportation	DfT	50.00	220.29	270.29

Summary

The All-Electric Bus City (AEBC) and Zero Emission Bus Regional Areas (ZEBRA) schemes provided capital funding to local transport authorities (outside of London) to support the introduction of zero emission buses and associated infrastructure.

On 6 January 2021, the government announced that Coventry is developing a proposal to deliver the first all-electric bus city. £50 million of funding has since been awarded to deliver the scheme. On 27 October 2021, the government announced that funding worth almost £71 million was awarded to five local transport authorities under the fast-track process of the ZEBRA scheme. On 26 March 2022, the government announced that funding worth £198 million has been awarded to twelve local transport authorities under the standard process of the ZEBRA scheme.

Programme contribution to the policy

Total funding for zero emission buses (ZEBs) in financial years 2020-21 and 2021-22 was £320 million, of which £270.29 million was provided by the Programme (84.5%). This was £50 million to AEBC in 2020-21 and £220 million to ZEBRA in 2021-22; impact data below is for the Programme's share of financing in 2020-21 and 2021-22 for these two policies only.

DfT have identified a further £130 million of ZEB spending in 2021-22, which is not included in the 2022 Programme allocation but is included in the 2023 allocation. Impact estimates for this financing will be presented in the 2025 Impact Report, covering the 2023 and 2024 allocations.

Programme share of policy impact

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Environmental impacts					
GHG emissions reduced/avoided	1.31 MtCO2e	Project lifetime	Ex ante	Estimate	From ZEBRA and AEBC business case appraisals
Reduction of particulate matter	16 tonnes	Project lifetime	Ex ante	Estimate	From ZEBRA and AEBC business case appraisals
Reduction of nitrogen oxides	612 tonnes	Project lifetime	Ex ante	Estimate	From ZEBRA and AEBC business case appraisals

Data sources and notes

Impact data from internal DfT estimates.

Total spend data from internal DfT estimates.

Environmental impact estimates are based on scheme level ex-ante appraisal completed during business case development in 2021. The data values are the sum of all successful schemes that are expected to be delivered. One proposal that was successful at business case stage but is no longer being delivered has been excluded from the overall policy impact.

Some schemes have since been subject to change, through an agreed change controls process, hence there have been changes that will impact the environmental impact estimates, but these changes are not reflected in these results.

The appraisal tool used to inform these results has also since been updated. Environmental impact results may be different if using this latest version of the tool.

Climate Change Adaptation

The climate has already changed since pre-industrial times and will continue to do so even under future net zero scenarios. The changing climate will lead to more extreme weather conditions globally and it is vital the UK prepares for these.

To adapt to a changing climate, the government is ensuring that policies are resilient to current and future climate risks, both domestically and internationally. Significant progress has already been made in adapting to the unavoidable impacts of climate change across the UK, including by improving the resilience of properties at risk of flooding.

Expenditure on flood risk management is managed over a six-year programme running from 2021 to 2027. This funding can be put towards traditional flood defences or natural flood management (such as wetland creation), which aims to provide additional environmental benefits.

Policies in this category

- Flood and Coastal Erosion Risk Management (FCERM). This was previously listed as the Environment Agency (EA) Floods Programme

Environmental impacts attributable to the Programme

Metric	Programme impact	Impact period	Contributing policies
Number of properties better protected	220,000	Policy impact to date, 2015-2022	FCERM
Area of agricultural land better protected	163,000 hectares	Policy impact to date, 2015-2022	FCERM
Area of natural habitat created	2,800 hectares	Policy impact to date, 2015-2022	FCERM

Flood and Coastal Erosion Risk Management (Environment Agency Floods Programme)

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Climate Change Adaptation	DEFRA	1,023.80	1,091.17	2,114.97

Summary

The risks from flooding and coastal erosion are significant and continue to grow. In July 2020, the government published its long-term vision to create a nation more resilient to flood and coastal erosion risk in the Flood and Coastal Erosion Risk Management (FCERM) Policy Statement.

It sets out five key commitments which will accelerate progress better to protect and better to prepare the country for the coming years:

- upgrading and expanding flood defences and infrastructure across the country
- managing the flow of water to both reduce flood risk and manage drought
- harnessing the power of nature not only to reduce risk, but to deliver benefits for the environment, nature, and communities
- better preparing communities for when flooding and erosion does occur
- ensuring every area of England has a comprehensive local plan for dealing with flooding and coastal erosion

£5.2 billion was allocated to the new six-year investment programme in England for 2021 to 2027. The programme aims to better protect hundreds of thousands of properties. It also sets out to avoid £32 billion of wider economic damages. The programme will invest in around 2,000 new defence schemes.

These projects will benefit both urban and rural communities and will help to better protect against a range of flood risk sources and coastal erosion, building back better in the wake of the COVID pandemic. It will improve resilience to flood and coastal erosion risk throughout England and help to stimulate the economy in all parts of country.

The new investment programme builds on the successes of the first six-year investment programme for England for 2015 to 2021, which saw the government invest £2.6 billion in new flood defences, surpassing its target of better protecting 300,000 homes by March 2021.

Programme contribution to the policy

The government invested £2.6 billion in flood defence programmes from 2015 to 2021. Investment in FCERM increased to £5.2 billion for the six years from 2021 to 2027, with spending in 2021-22 – the latest year for which impact data is available – of £742 million. Of the £3,342 million invested between 2015 and 2022, £2,114.97 million was provided by the Green Financing Programme (63.3%).

Programme share of policy impact

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Environmental impacts					
Number of properties better protected	220,000	Project lifetime	Ex post	Recorded	2015-21 and 2021-22 data combined
Area of agricultural land better protected	163,000 hectares	Project lifetime	Ex post	Recorded	2015-21 and 2021-22 data combined
Area of natural habitat created	2,800 hectares	Project lifetime	Ex post	Recorded	2015-21 and 2021-22 data combined

Data sources and notes

Impact and spend data for 2015-21 taken from '*Flood and coastal erosion risk management report: 1 April 2020 to 31 March 2021*', updated March 2023.

Impact data and spend for FY 2021-22 taken from '*Flood and coastal erosion risk management report: 1 April 2021 to 31 March 2022*', updated March 2023.

The National Audit Office (NAO) published '*Managing flood risk*' in November 2020. This evaluated whether the government's approach to managing the risks of flooding and coastal erosion was achieving value for money and recommended the Environment Agency update and improve the methodology for calculating the risk reduction achieved from its investment programme. The Environment Agency updated its methodologies between the 2020-21 and 2021-22 FCERM annual reports.

Energy Efficiency

The energy efficiency spend in this allocation is focussed on improving heat insulation in buildings and supporting the decarbonisation of UK heating. Improved heating efficiency will reduce carbon emissions with the social co-benefit of reducing heating bills.

One of the largest expenditures is the Public Sector Decarbonisation Scheme, which funds heat decarbonisation and energy efficiency measures in public sector buildings. This includes heat pumps, solar panels, LED lighting, insulation and efficient building energy management systems. The scheme supports the aim of reducing emissions from public sector buildings by 75% by 2037, compared to a 2017 baseline, as set out in the Heat and Buildings Strategy and the Net Zero Strategy published in 2021.

Policies in this category

- Green Homes Grant voucher (GHGV)
- Home Upgrade Grant (HUG)
- Local Authority Delivery (LAD)
- Public Sector Decarbonisation Scheme (PSDS)
- Social Housing Decarbonisation Fund (SHDF)

Environmental impacts attributable to the Programme

Metric	Programme impact	Impact period	Contributing policies
Number of measures installed	71,373	Policy impact to date	HUG LAD SHDF
Energy savings	6,800 GWh	Estimated lifetime impact of installations to date	GHGV HUG LAD
GHG emissions savings	1.237 MtCO2e	Estimated lifetime impact of installations to date	GHGV HUG LAD
GHG emissions savings	0.11 MtCO2e	Estimated annual impact of policy (objective)	PSDS

Social co-benefits attributable to the Programme

Metric	Programme impact	Impact period	Contributing policies
Households benefitting	96,202	Policy impact to date	GHGV HUG LAD SHDF
Annual household bill savings	£9.53 million	Estimated lifetime impact of installations to date	GHGV HUG LAD
Jobs supported	Up to 27,000	Estimated policy impact (objective)	PSDS

Green Homes Grant voucher scheme

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Energy Efficiency	DESNZ	70.14	212.66	282.80

Summary

The Green Homes Grant voucher scheme (GHGV) covered up to two-thirds of the cost of energy efficiency improvements, with a maximum government contribution of £5,000. If a member of the household received certain benefits, the voucher covered up to 100% of the cost of improvements, with a maximum overall contribution of £10,000.

The voucher could be used for home improvement measures. Homeowners needed to install either insulation, or low carbon heating measures such as heat pumps, solar thermal or biomass boilers to qualify for the voucher. On top of this initial installation, homeowners could receive grants for draught proofing, hot water tank insulation, increasing or replacing single glazing, installing external energy efficient replacement doors, heating controls and insulation.

The GHGV scheme was open to applications from September 2020 to March 2021.

Programme contribution to the policy

The Programme funded 100% of the GHGV scheme. Therefore, the estimated impacts of the GHGV scheme shown in the tables below are consistent with the Programme's contribution to the scheme's impacts.

Programme share of policy impact

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Environmental impacts					
Energy savings	3,800 GWh	Lifetime of measures	Ex ante	Estimate	Annual estimates also available in source data
GHG emissions savings	0.72 MtCO2	Lifetime of measures	Ex ante	Estimate	Annual estimates also available in source data

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Social co-benefits					
Households benefitting from the scheme	43,168 households	Lifetime of measures	Ex post	Recorded	
Consumer bill savings	£3,900,000	Annual	Ex ante	Estimate	

Data sources and notes

Impact data from '*Green Homes Grant voucher release, October 2022*'.

Total spend data from internal DESNZ estimates.

Home Upgrade Grant

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Energy Efficiency	DESNZ	0.00	152.68	152.68

Summary

The Home Upgrade Grant (HUG) provides energy efficiency and low carbon heating upgrades via local authority funding, to households in England that:

- are low income
- are off the gas grid
- have an Energy Performance Certificate (EPC) rated between D and G

Across the 2020 and 2021 Spending Reviews, £1.1 billion has been allocated to HUG, with £218 million allocated to local authorities to deliver HUG Phase 1 from January 2022 to March 2023.

Up to £585 million of grant funding will be available for successful local authorities to help them deliver HUG 2 from April 2023 until March 2025. Funding will be released to successful local authorities in the financial years 2023-24 and 2024-25.

Programme contribution to the policy

The total budget for the HUG in 2021-22 was £218 million, of which £152.68 million (70.0%) was funded via the Programme. The HUG did not run before financial year 2021-22.

Programme share of policy impact

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Environmental impacts					
Number of measures installed	3,519	January 2022 – June 2023	Ex post	Recorded	All measures are financed in the years covered by the 2021-22 allocation

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Of which insulation	*1,546*	January 2022 – June 2023	Ex post	Recorded	All measures are financed in the years covered by the 2021-22 allocation
Of which low carbon heat sources	*762*	January 2022 – June 2023	Ex post	Recorded	All measures are financed in the years covered by the 2021-22 allocation
Of which solar PV	*970*	January 2022 – June 2023	Ex post	Recorded	All measures are financed in the years covered by the 2021-22 allocation
Estimated energy savings	163 GWh	Lifetime of installations to date	Ex post	Estimate	
Estimated GHG emissions savings	0.031 MtCO2e	Lifetime of installations to date	Ex post	Estimate	
Social co-benefits					
Number of households upgraded	2,318	January 2022 – June 2023	Ex post	Recorded	All measures are financed in the years covered by the 2021-22 allocation
Estimated bill savings	£430,000	Annual impact of installations to date	Ex post	Estimate	

Data sources and notes

Impact data taken from '*Green Homes Grant Local Authority Delivery (LAD) and Home Upgrade Grant (HUG) release, August 2023*'.

Total spend data from internal DESNZ estimates.

Spend data is also at '*Sustainable Warmth Competition: successful local authorities release, December 2021*'.

Measures installed under HUG Phase 1 up to and inclusive of June 2023 (the latest available data at the time of publication) were financed from the £218 million budget allocated in 2021-22 and so are included in impact data analysis for the 2021-22 Programme allocation.

Local Authority Delivery

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Energy Efficiency	DESNZ	502.80	208.87	711.67

Summary

The Local Authority Delivery (LAD) Scheme, launched with Phase 1A in August 2020, improves the energy efficiency of homes of low-income households, helping reduce fuel poverty, phasing out high carbon fossil fuel heating, and delivering progress towards the UK's commitment to net zero by 2050.

The scheme prioritised homes with low Energy Performance Certificate (EPC) ratings of E, F or G in Phase 1A and Phase 1B (which also included D rated homes). Over 200 local authorities took part in Phase 1 of the LAD scheme, with participation further increasing through Phase 2 of the scheme.

Phase 1 allocated £200 million in grants to over 136 local authorities with a managed closedown of projects from March 2022 to the end of September 2022. Phase 1 delivered upgrades to 18,634 homes.

Phase 2 allocated £300 million to the five Local Net Zero Hubs, who worked with their regional local authorities to continue to deliver energy efficiency upgrades to 20,542 homes across England to those most in need until the end of December 2022.

Phase 3 allocated £287 million of extra funding made available to local authorities to cut GHG emissions from the nation's homes through energy efficiency and low carbon heating schemes, meaning thousands more low-income households will be able to be upgraded. Delivery commenced in early 2022 and will continue until the end of September 2023. To the end of June 2023, the scheme has upgraded 13,248 homes across England.

Programme contribution to the policy

Phases 1-3 of the LAD Scheme had a budget of £789 million in financial years 2020-21 to 2021-22. £711.67 million, or 90.2% of this, was funded by the Programme.

Programme share of policy impact

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Environmental impacts					
Number of measures installed	62,008	October 2020 – June 2023	Ex post	Recorded	All measures are financed in the years covered by the 2021-22 allocation
Of which insulation	*27,269*	October 2020 – June 2023	Ex post	Recorded	All measures are financed in the years covered by the 2021-22 allocation
Of which low carbon heat sources	*3,803*	October 2020 – June 2023	Ex post	Recorded	All measures are financed in the years covered by the 2021-22 allocation
Of which solar PV	*23,104*	October 2020 – June 2023	Ex post	Recorded	All measures are financed in the years covered by the 2021-22 allocation
Estimated energy savings	2,807 GWh	Lifetime of installations to date	Ex post	Estimate	
Estimated GHG emissions savings	0.485 MtCO2e	Lifetime of installations to date	Ex post	Estimate	
Social co-benefits					
Number of households upgraded	47,286	October 2020 – June 2023	Ex post	Recorded	All measures are financed in the years covered by the 2021-22 allocation

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Estimated consumer bill savings	£5,204,000	Annual impact of installations to date	Ex post	Estimate	

Data sources and notes

Impact data taken from '*Green Homes Grant Local Authority Delivery (LAD) and Home Upgrade Grant (HUG) release, August 2023*'.

Total spend data from internal DESNZ estimates.

Measures installed under LAD phases 1-3 (concluding at the end of September 2023) were financed in 2020-21 and 2021-22 and so are included in impact data analysis for the 2021-22 Programme allocation

Public Sector Decarbonisation Scheme

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Energy Efficiency	DESNZ	575.21	403.07	978.28

Summary

The Public Sector Decarbonisation Scheme (PSDS) supports the aim of reducing emissions from public sector buildings by 75% by 2037, compared to a 2017 baseline, as set out in the 2021 Net Zero and Heat and Buildings strategies.

Phase 1 of the PSDS provided £1 billion in grants over the financial years 2020-21 and 2021-22 as part of the Chancellor's Plan for Jobs 2020 commitment to support the UK's economic recovery from COVID. It aimed to support up to 30,000 jobs in the low-carbon and energy efficiency sectors and reduce carbon emissions from the public sector.

Phase 2 of the Public Sector Decarbonisation Scheme provided £75 million of grant funding for the financial year 2021-2022. It had a stronger focus on heat decarbonisation than Phase 1 in order to deliver greater carbon emission reductions. It supported the public sector in taking a 'whole building' approach when decarbonising their estates.

The Public Sector Low Carbon Skills Fund provides grants for public sector bodies to put in place a heat decarbonisation plan, providing them with information they need to develop future applications to the PSDS. Both the PSDS and the Public Sector Low Carbon Skills Fund are open to public sector bodies in England and areas of reserved public services across the UK. The DESNZ delivery body Salix Finance manages the PSDS.

Programme contribution to the policy

Phases 1 and 2 of the PSDS provided a total of £1,075 million of investment in financial years 2020-21 to 2021-22, of which £978.28 million (91.0%) was funded by the Programme. It is not possible to calculate separately the proportions of Programme funding for Phases 1 and 2, given both phases received funding in the same financial year. It is assumed that the Programme financed equal proportions of each phase.

Programme share of policy impact

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Environmental impacts					
GHG emissions reduced or avoided	0.09 MtCO2e	Annual	Ex ante	Estimate	Phase 1 objective
GHG emissions reduced or avoided	0.02 MtCO2e	Annual	Ex ante	Estimate	Phase 2 objective
Social co-benefits					
Jobs supported	Up to 27,000	Project lifetime	Ex ante	Estimate	Phase 1 objective

Data sources and notes

Impact estimates for Phase 1 taken from '*Phase 1 Public Sector Decarbonisation Scheme: summary report*', published in January 2022.

Impact estimates for Phase 2 taken from '*Phase 2 Public Sector Decarbonisation Scheme: summary report*', published in January 2022.

The PSDS impact metrics are based on modelling and pre-delivery grants awarded values, not final grant spending, and so actual realised impacts may ultimately differ.

Total spend data taken from the above sources.

It is not possible to calculate separately the proportions of Programme funding for Phases 1 and 2, given both phases received funding in the same financial year. The Programme proportion of impacts for each phase is calculated by scaling down by the average Programme contribution across both phases.

Social Housing Decarbonisation Fund

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Energy Efficiency	DESNZ	62.32	163.82	226.14

Summary

The Social Housing Decarbonisation Fund (SHDF) will upgrade a significant amount of the social housing stock currently below Energy Performance Certificate (EPC) C up to that standard. It will support the installation of energy performance measures in social homes in England, and help:

- deliver warm, energy efficient homes
- reduce carbon emissions
- tackle fuel poverty
- support green jobs
- develop the retrofit sector
- improve the comfort, health and well-being of social housing tenants

The Government launched Wave 1 of the SHDF in August 2021. It has awarded around £179m of grant funding for delivery from 2022 into 2023 and will see energy performance improvements to up to 20,000 social housing properties. The bidding window closed in October 2021 and the outcomes of bids were disclosed in February 2022.

Wave 2.1 of the SHDF was launched in September 2022 to support the installation of energy performance measures in social homes in England. £778 million of government funding was allocated for Wave 2.1 of the SHDF in March 2023. Wave 2.1 will see proposed energy performance improvements to around 90,000 social homes. This brings the total committed funding for the SHDF and associated demonstrator to just over £1 billion.

Programme contribution to the policy

Total government grant spending on SHDF in financial years 2020-21 to 2021-22 was £240 million, of which £226.14 million was provided by the Programme (94.2%). SHDF requires a co-funding contribution, with at least 50% of total eligible costs to be provided by applicants to the scheme. Co-funding commitments of at least 50% have been achieved on both Wave 1, for which impact data is presented below, and Wave 2.

Programme share of policy impact

	Data value and units	Time period	Ex ante/ex post	Recorded/ estimate	Notes
Environmental impacts					
Number of measures installed	5,846	March 2022 – June 2023	Ex post	Recorded	All measures are financed in the years covered by the 2021-22 allocation
Of which insulation measures	3,507	March 2022 – June 2023	*Ex post*	*Recorded*	All measures are financed in the years covered by the 2021-22 allocation
Of which low carbon heat measures	277	March 2022 – June 2023	*Ex post*	*Recorded*	All measures are financed in the years covered by the 2021-22 allocation
Of which Solar PV	642	March 2022 – June 2023	*Ex post*	*Recorded*	All measures are financed in the years covered by the 2021-22 allocation
Of which energy efficient lighting	406	March 2022 – June 2023	*Ex post*	*Recorded*	All measures are financed in the years covered by the 2021-22 allocation
Social co-benefits					
Number of households upgraded	3,430	March 2022 – June 2023	Ex post	Recorded	All measures are financed in the years covered by the 2021-22 allocation

Data sources and notes

Impact data from '*Social Housing Decarbonisation Fund statistics: August 2023*', published August 2023. The above impact data are only for SHDF Wave 1. There are no comparable published data for SHDF Demonstrator. SHDF Wave 1 was entirely financed in financial years 2020-21 and 2021-22 and so is included in impact data analysis for the 2021-22 Programme allocation.

The above table only presents a sample of installation sub-categories, therefore sub-category data above (italicised data) will not sum to the overall number of measures installed.

Total spend data from internal DESNZ estimates. Also available at *SHDF Demonstrator – successful bids* and *SHDF Wave 1 – successful bids*.

SHDF Wave 1 requires a co-funding contribution, with at least 50% of total eligible costs to be provided by applicants to the scheme. The impacts above have been scaled down to reflect the Programme's share of overall funding (47.11%), not just government grant funding (94.23%)

Living and Natural Resources

Protecting nature in the UK is central to the government's environmental goals. The government has been leading international efforts to conserve nature through the '30 by 30' initiative, committing to protect 30% of land and sea by 2030. Domestically, the government is backing this objective by committing to legally binding targets set under the Environment Act 2021, including to halt the decline of species abundance in England by 2030.

One of the expenditures allocated to is the Nature for Climate Fund, which aims to expand and enhance woodland cover and to restore, protect and better manage peatland. While acting as carbon sinks these projects aim to also create sustainable biodiverse habitats. Internationally the Investment in Forests and Sustainable Land Use supports developing countries to maintain and expand their natural areas of territory.

The UK is currently switching from a farming subsidy system based on land use to one based on promoting sustainable farming. This range of programmes promote payments to farmers based on preventing soil erosion as well as encouraging biodiverse natural spaces alongside crop growing areas.

Policies in this category

- Agri-environment schemes*
- Green Recovery Challenge Fund (GRCF)
- Investments in Forests and Sustainable Land Use**
- Nature for Climate Fund (NCF)

* No available impact data
** ODA expenditure, excluded from category and Programme aggregation

Environmental impacts attributable to the Programme

Metric	Programme impact	Impact period	Contributing policies
Total area benefitting	880,000 hectares	Policy impact to date	GRCF NCF
Trees planted	1,200,000	Policy impact to date	GRCF
GHG emissions savings	0.745 MtCO2e	Estimated annual impact of policy to date	NCF

Social co-benefits attributable to the Programme

Metric	Programme impact	Impact period	Contributing policies
Jobs supported	1,663	Policy impact to date	GRCF

Agri-environment schemes

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Living & Natural Resources	DEFRA	100.00	249.00	349.00

Summary

The Green Financing Programme has raised funds for several umbrella agri-environment schemes, including:

- Existing agri-environment and forestry schemes
- Countryside stewardship offer
- Future plant health
- Environmental land management

Since leaving the EU, funding for farming in England has moved towards schemes that recognise the work that farmers do as stewards of the natural environment. These reforms will support productive and sustainable farming and food production alongside positive environmental, climate and animal welfare outcomes. The government is working with farmers in England to design new systems and support the choices that they make for their own holdings.

These schemes, alongside food production, will improve water quality, biodiversity, climate change adaptation and mitigation, air quality, natural flood management, coastal erosion risk mitigation and access and heritage. In all cases the government will fund the actions that have the greatest possible impact, ideally across multiple outcomes, and avoid negative impacts on important features such as on Sites of Special Scientific Interest or scheduled monuments.

Programme contribution to the policy

The Green Financing Programme allocated a total of £349.00 million to various agri-environment schemes managed by DEFRA over financial years 2020-21 and 2021-22.

Programme share of policy impact

These schemes cover a multitude of overlapping and ongoing individual programmes, and it has not been possible to isolate the impact of the Green Financing Programme in financial years 2020-21 and 2021-22.

DEFRA have a strategy for monitoring, evaluating and learning from projects before they are scaled up. This includes pilot schemes, tests and trials and England-wide assessments.

These agri-environment schemes contribute to many of the government's environmental and climate ambitions, including:

- at least 70% of farmers, covering at least 70% of farmland, to take up Sustainable Farming Incentive agreements
- delivering at least 10 Landscape Recovery projects covering over 20,000 hectares between 2022 and 2024
- bring up to 60% of England's agricultural soil under sustainable management through government schemes by 2030
- decarbonise agricultural emissions by up to a total of 6 MtCO2e per annum in Carbon Budget 6 (2033-2037) in England
- trebling woodland creation in England by the end of this Parliament
- restoring and maintaining up to 200,000 hectares of peatland in England by 2050
- through wide take-up of our schemes, there is potential to create or restore up to 300,000 hectares of habitat by 2042, and bring over half of the UK's Sites of Special Scientific Interest into favourable condition by 2042

Data sources and notes

Ambitions for agri-environment schemes taken from '*Environmental land management schemes: outcomes*', published January 2022.

Further information available on *monitoring, evaluation and learning in the Future Farming and Countryside Programme*.

Green Recovery Challenge Fund

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Living & Natural Resources	DEFRA	40.00	40.00	80.00

Summary

The Green Recovery Challenge Fund (GRCF) was a short-term competitive fund aimed at supporting environmental non-governmental organisations and their partners to deliver against one or more environmental themes in line with the 25 Year Environment Plan (25 YEP):

- nature conservation and restoration: habitats, species and ecosystems
- nature-based solutions, particularly for climate mitigation and adaptation
- connecting people with nature

The GRCF was also part of a wider package of measures introduced by the government to boost the economy and support England's recovery from the COVID pandemic. Hence it also aimed to support job creation and skills development within the conservation sector and its supply chain, and to enhance the capacity and resilience of environmental NGOs.

The GRCF was funded by DEFRA and delivered by The National Lottery Heritage Fund in partnership with Natural England, the Forestry Commission, and the Environment Agency.

The £40 million first round of the GRCF was launched in September 2020 in response to the COVID pandemic. The £40 million second round of the GRCF was launched in March 2021. Funded projects in both rounds included matched funding from a range of sources, equal to £6.5 million and £11.1 million for round one and round two, respectively. Matched funding was not a requirement of the programme in round one; round two projects over £250,000 were required to contribute a minimum 5% of the total project costs.

The final evaluation of round two of the GRCF has not yet concluded and so the impacts of round one and two have been separated to indicate final and interim evaluations. A final evaluation of round two will be available later in 2023.

Programme contribution to the policy

The Programme funded the entire UK government grant funding for the GRCF and projects in both rounds brought in matched funding from a range of sources. In round one, government direct funding was £37.8 million and matched funding was reported as £6.5 million, for a total of £44.3 million in project funding. In round two, government direct grant funding was £37.8 million and matched funding was reported as £11.1 million, for a total of £48.9 million in project funding. Administration costs of 5% were paid to the delivery body for the administration and delivery of the fund.

The Programme allocation of £40 million to each of round one and round two thus accounts for 90.3% and 81.8% of total direct project financing, respectively.

A 2021 survey found that 80% of GRCF round one projects reported that their project would not have gone ahead in the absence of GRCF funding. 14% of respondents said their project may have gone ahead, and no respondents said their project would definitely have gone ahead without funding. It has not been possible to identify these projects and isolate their impacts.

Programme share of policy impact

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Environmental impacts					
Total area benefitting from habitat restoration and creation (directly and indirectly)	790,000 hectares	GRCF round one lifetime December 2020 – September 2022	Ex post	Reported	
Number of trees planted	990,000	GRCF round one lifetime December 2020 – September 2022	Ex post	Reported	
Total area directly benefitting, including from habitat creation and/or restoration	81,000 hectares	GRCF round two- interim evaluation July 2021 – January 2023	Ex post	Reported	
Number of trees planted	184,000	GRCF round two- interim evaluation July 2021 – January 2023	Ex post	Reported	
Social co-benefits					
Jobs directly supported	590 positions	GRCF round one lifetime December 2020 – September 2022	Ex post	Reported	

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Jobs indirectly supported	495 positions	GRCF round one lifetime December 2020 – September 2022	Ex post	Estimated	
Jobs directly supported	578 positions	GRCF round two- interim evaluation July 2021 – January 2023	Ex post	Reported	

Data sources and notes

Impact data taken from '*Green Recovery Challenge Fund Round 1 Final Evaluation Report*', published in March 2023 and '*Green Recovery Challenge Fund Round 2 Second Interim Evaluation Report*', published in April 2023.

Total spend data taken from the above sources.

The impacts from the two rounds of GRCF have been presented separately to reflect the different statuses of their evaluations.

Investments in Forests and Sustainable Land Use (ODA)

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Living & Natural Resources	FCDO	13.61	10.19	23.80

Summary

Investments in Forests and Sustainable Land Use (IFSLU) is supporting and catalysing efforts to find a new approach to land use. Neither the Sustainable Development Goals (SDGs) or the Paris Agreement targets can be achieved without a shift in land use and food production to meet the needs of a growing population, reduce GHG emissions and protect the ecosystems and natural resources (fresh water, soil, biodiversity, wildlife habitats) which sustain life.

The programme works with businesses which are committed to using land sustainably, and provides support to develop new business models, which provide jobs and livelihoods while protecting and restoring forests; and it provides support for policy reforms which encourage more sustainable use of land. The programme is implemented through a set of complementary interventions:

- the Tropical Forest Alliance (TFA) (£6 million, 2015-23), a public-private initiative hosted by the World Economic Forum (WEF), which mobilises over 170 companies, governments and NGOs to tackle deforestation associated with agricultural commodities, including palm oil and soya
- Partnerships for Forests (P4F) (£120 million, 2015-23), a UK programme managed by Palladium, which provides grant funding and technical assistance to catalyse investment into sustainable agriculture and forest management, creating jobs and livelihoods, while protecting forests
- Just Rural Transition (£9 million, 2020-23), implemented through grants to Meridian Institute, World Business Council for Sustainable Development (WBCSD), Sustainable Development Solutions Network (SDSN) and the World Bank, assisting countries to align agricultural policies and support with climate and nature goals; and scale-up sustainable private investment
- the Food and Land Use Coalition (FOLU) (£1 million, 2019-22), implemented through a grant to the World Resources Institute (WRI), which supports countries to develop plans which balance food production, agriculture, land use and nature protection

Programme contribution to the policy

The Programme funded 100% of UK government spend (£23.80 million) on this policy in financial years 2020-21 and 2021-22.

Programme share of policy results

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Environmental impacts					
Emissions reductions supported by project	10.72 MtCO2e	2020	Ex post	Estimate	

Data sources and notes

Impact data from internal FCDO estimates.

Total spend data from *devtracker*.

Nature for Climate Fund

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Living & Natural Resources	DEFRA	30.19	69.83	100.02

Summary

The Nature for Climate Fund aims to put tree planting and peatland restoration in England on the trajectory required for the UK to meet its Net Zero and 25 Year Environment Plan commitments by 2050.

The programme objectives are:

- increasing annual planting rates to achieve manifesto commitments for new woodland creation by March 2025
- sequestering CO2e in line with Environment Plan commitments by 2050 (and continuing to sequester carbon after that)
- improving the resilience of England's woodlands
- restoring peatland by financial year 2024/25 and reducing emissions from peat by 2050 in line with the manifesto and Environment Plan commitments (and continuing to abate after that)
- contribute to the Nature Recovery Network by creating high-quality habitats that recover wildlife and provide wider environmental, social and economic benefits, including climate change mitigation
- improve people access to nature for the benefit of people's physical and mental health and develop visitor economies by ensuring activity close to where people live
- improve the future financial sustainability of woodland creation and peatland restoration by supporting the development of green finance and markets to increase private investment in these Nature Based Solutions and support further development of private investment to pay for and support the wider ecosystem services that trees, and restored peat habitats can provide
- position the UK as a global leader on Nature Based Solutions to climate change, maximising ecosystem services from tree and peat activity

Programme contribution to the policy

The Nature for Climate Fund is a £650 million fund, running from 2020 to 2025. In 2020-21 and 2021-22 the Fund allocated £103 million, of which the Programme financed £100.02 million (97.1%).

Programme share of policy impact

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Environmental impacts					
GHG emissions reduced or avoided (woodland)	0.50 MtCO2e	March 2020 – April 2022	Ex ante	Estimate	
Woodland and tree cover	1,533 hectares	March 2020 – April 2022			
Area of peatland undergoing restoration	6,696 hectares	March 2020 – April 2022			
GHG emissions reduced or avoided (peatland)	0.245 MtCO2e	March 2020 – April 2022	Ex ante	Estimate	
Social co-benefits					
Apprenticeships supported	24	From September 2022			

Data sources and notes

Impact data taken from internal DEFRA estimates.

Total spend data from internal DEFRA estimates.

Pollution Prevention and Control

This category concerns the mitigation and reduction of pollutants as well as carbon capture, usage and storage (CCUS). CCUS and the Emissions Trading Scheme are the only expenditures currently in this allocation category as most pollution reduction is delivered through policies under other categories. For example, the air quality schemes reduce roadside pollution but are included in the Clean Transportation category.

The CCUS spend included in this category is a continuation of last year's spend and will help deploy CCUS in at least two clusters (an area of carbon capture plants with storage facilities) by the mid-2020s, and four clusters by 2030 at the latest, with an ambition to capture 20 to 30 million tonnes of carbon dioxide a year by 2030. CCUS will be crucial for industrial decarbonisation, low-carbon power, engineered GHG removal technologies and delivering the ambition of up to 10GW of low carbon hydrogen production capacity by 2030, subject to affordability and value for money.

CCUS is not an alternative to reducing fossil fuel consumption. However, developing CCUS in tandem with other measures can reduce emissions more quickly and cost-effectively than would otherwise be possible. Certain industrial processes will require expensive or currently undeveloped technology to decarbonise and CCUS provides an effective solution to decarbonise these sectors rapidly.

There is only one policy in this category from the 2021-22 allocation, which has been allocated £9.6 million from the Programme, of the total £16.4 billion fund available for allocation. It is not yet operational and as such there are no available impact data for this category.

Policies in this category

- Carbon Capture & Storage Infrastructure*

* No available impact data

Carbon Capture & Storage Infrastructure

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Pollution Prevention & Control	DESNZ	0.00	9.60	9.60

Summary

The Carbon Capture and Storage Infrastructure Fund (CIF) long-term allocation of £1 billion was confirmed at the Spending Review in November 2020.

The CIF forms part of a package of government support to provide industry with the certainty required to deploy CCUS at pace and at scale. On 15 March 2023, the Chancellor announced up to £20 billion investment in the early development of CCUS to help meet the government's climate commitments. This unprecedented investment will put the UK on track to store 20-30 million tonnes of CO_2 a year by 2030. The government has committed to setting out a vision for the CCUS sector that will support the UK's net zero ambitions and raise investor confidence.

The majority of CIF will be allocated through the ongoing Cluster Sequencing process. The Hynet and East Coast Clusters have been confirmed as Track-1 clusters and the government has announced the eight projects that will be taken forward into Track-1 negotiations for support through the relevant Business Models, including CIF. The government will launch a process to enable expansion of the Track-1 clusters, beyond the initial deployment, later this year. Following a review of Expressions of Interest applications against the Track-2 eligibility criteria, the government has concluded that Acorn and Viking T&S systems, due to their maturity, remain best placed to deliver the UK's objectives for Track-2 at this stage, subject to final decisions, due diligence, consenting, subsidy control, affordability and value-for-money assessments.

The government's decision to support the UK CCUS industry is based on strong environmental and economic evidence:

- the UK has one of the largest CO_2 storage potentials of any country in the world – it is estimated that the UK Continental Shelf could safely store 78 billion tonnes of CO_2, which is the equivalent of 200 years of the UK's annual CO_2 emissions
- investment in CCUS supports the long-term competitiveness of UK industry and the economic transformation and levelling up of our industrial regions by supporting 50,000 jobs by 2030
- CCUS can help support markets for low carbon products in hard to abate sectors such as clean steel, low carbon chemicals, low carbon cement and other industrial applications

- the CCUS support package, including CIF, supports the development of, and UK leadership in, a globally significant technology – the international importation of CO_2 could be worth £14 billion by 2050
- CCUS can help decarbonise the most challenging sectors to abate, providing low carbon power and a pathway to negative emissions

The CIF, alongside other government support mechanisms and the private sector investment leveraged, will aid in delivering government CCUS policy objectives:

- establishing a new CCUS sector
- enabling low-cost decarbonisation in multiple sectors
- developing a market for carbon capture

Programme contribution to the policy

The Green Financing Programme had allocated £9.60 million to CIF as of the end of financial year 2021-22.

Programme share of policy impact

Beyond a £40 million commitment to the UK Research and Innovation (UKRI)-managed Industrial Decarbonisation Challenge, the CIF is not operational yet and so there are no available evaluation or impact data at this stage.

Data sources and notes

Evidence on CCUS opportunities taken from '*The Carbon Capture and Storage Infrastructure Fund: an update on the design of the CCS infrastructure fund*', published May 2021.

Renewable Energy

Most of the renewable energy funding in this allocation aims to decarbonise the heating sector rather than the electricity sector. This is mainly due to the fact that renewable electricity is supported through the Contracts for Difference (CfD) scheme, which incentivises investment in renewables by offering long-term price stabilisation. The CfD scheme is directly funded through a green levy on generating firms collected by a government owned company. This cash is in a separate pot to regular HM Treasury funding and is not managed by HM Treasury; for this reason, it is not eligible for inclusion in the Green Financing Programme.

The largest policy in the Renewable Energy category is therefore the Renewable Heat Incentive scheme, which funds renewable heating systems across England, Scotland and Wales. Ground and air source heat pumps, solar thermal panels, biomass boilers, combined heat and power plants, biogas, biomethane, and geothermal installations were all eligible for funding under the scheme. The RHI is closed to new applications but will continue making payments to installations that are already accredited to the scheme, for the remainder of their payment period.

Policies in this category

- Heat Networks Transformation Programme*
- Net Zero Innovation Portfolio R&D*
- Renewable Heat Incentive (RHI)

* No available impact data

Environmental impacts attributable to the Programme

Metric	Programme impact	Impact period	Contributing policies
Heat paid for	27,497 GWh	Policy impact to date, November 2011 – March 2023	RHI
GHG emissions savings	6.2 MtCO2e	Policy impact to date, November 2011 – March 2023	RHI

Heat Networks Transformation Programme

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Renewable Energy	DESNZ	92.80	142.13	234.93

Summary

Heat networks are vital to making net zero a reality in the UK. In high density urban areas, they are often the lowest cost, low carbon heating option. This is because they offer a communal solution that can provide heat to a range of homes and businesses by capturing or generating heat locally.

By driving forward new low carbon technologies like heat networks, we can cut the use of fossil fuels for heating our homes and shield households from oil and gas price rises that are being pushed up by pressures on global energy markets.

Through the Heat Network Transformation Programme (HNTP), which will run until 2025, the government is working with industry and local authorities, and investing over £500 million in funds and programmes, to develop and construct new heat networks and improve existing ones. Funding will also go towards schemes designed to build up the skills of those working with Heat Networks in order to support the creation of new Heat Network jobs in the UK. Legislation is underway via the Energy Bill to ensure Heat Networks are regulated, by OFGEM, and also to support the creation of Heat Networks zones across cities in the UK.

Programme contribution to the policy

The Green Financing Programme had allocated £234.93 million to HNTP as of the end of financial year 2021-22.

Overall policy impact

Major capital schemes within HNTP – Heat Network Efficiency Scheme (HNES), Green Heat Network Fund (GHNF) and the Heat Networks Investment Project (HNIP) – collect and hold application-level data, but there are no available evaluation or impact data sets for HNES and the GHNF at this early stage.

HNIP, which ran from 2018-2022, is now closed for applications and an independent evaluation of the scheme is expected to be published in due course. A total of around £250 million in HNIP funding has been announced. The total capital cost of heat network schemes offered HNIP funding is over £826 million. So far, 30 funding awards have been announced, with further awards expected.

The GHNF is the targeted successor to HNIP. Through its first four application rounds, the GHNF has awarded capital grant funding to construct (or commercialise and construct) heat network projects. To date, GHNF awards to 11 projects have been announced,

totalling over £122 million. These projects are still in their early stages so there is no available impact data yet. The £32 million HNES, opened in February 2023, provides grants for existing heat networks and communal heating systems to part-fund the installation of improvement measures and carry out optimisation studies. By delivering targeted and cost-effective improvements HNES aims to improve the efficiency of poorly performing heat networks (reducing fuel consumption and carbon emissions) and improve cost and service outcomes for consumers. HNES has recently awarded grants through the first funding round – projects will begin delivery of measures shortly, so no impact data are available yet.

Net Zero Innovation Portfolio R&D

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Renewable Energy	DESNZ	106.75	99.26	206.01

Summary

Innovation is a fundamental part of the transition to net zero. Development of key technologies needs to be accelerated with faster commercialisation, scale-up and consumer uptake to support delivery of the UK's net zero target.

Launched in April 2021, and providing a combined total of £1.3 billion, the Net Zero Innovation Portfolio (NZIP) and the Advanced Nuclear Fund are UK government funds delivered by the Department for Energy Security and Net Zero. They will run until March 2025.

The funds invest in 10 priority themes, providing funding to develop green technologies and processes of the future. NZIP is key to supporting the UK's pathway to a low carbon future and contributing to the achievement of the UK's commitment to net zero emissions by 2050.

The Programme does not fund nuclear expenditures, in line with the Green Financing Framework. The Programme's financing contributes towards the non-nuclear parts of the NZIP.

NZIP's objectives include:

- support the development and demonstration of new energy technologies, systems and processes
- stimulate private sector investment in the most promising mid- to late-stage low-carbon energy innovations facilitating commercialisation
- maximise international coordination and collaboration opportunities to achieve a timely and effective low carbon transition
- maintain the UK's international leadership in areas that will benefit the UK clean energy sector
- ensure UK net zero policies are based on the most up-to-date and robust technical evidence
- drive international action on climate change by promoting research and innovation efforts to drive down costs globally and build new markets

Programme contribution to policy

The NZIP started in financial year 2021-22, supporting research and development projects for net zero, of which the Programme funded £99.26 million

Programme funding in 2020-21 also contributed to the final year of its predecessor programme, BEIS Energy Innovation Programme (EIP). EIP ran from 2015 to 2021 and aimed to accelerate the commercialisation of innovative clean energy technologies and processes into the 2020s and 2030s.

Programme share of policy impact

There is no disaggregated impact data for the NZIP programme alone, hence it has not been possible to present an impact for the Programme for this policy.

Data sources and notes

Further information on the impact of the range of NZIP schemes is available in '*Net Zero Innovation Portfolio and the Advanced Nuclear Fund: progress report 2021 to 2022*'.

The *BEIS Energy Innovation Programme* is now closed.

Renewable Heat Incentive

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Renewable Energy	DESNZ	848.14	941.60	1,789.74

Summary

The Renewable Heat Incentive (RHI) was a government financial incentive scheme which promoted the use of renewable heat, in order to reduce carbon emissions, meet the UK's renewable energy targets and develop supply chains in order to enable a mass rollout of renewable heat deployment in the 2020s and beyond.

There are two RHI schemes:

- the Non-Domestic RHI (NDRHI) has incentivised the deployment of ground and air source heat pumps, biomass boilers, solar thermal panels, combined heat and power plants, biogas, biomethane and geothermal installations in commercial, industrial, public sector, not for profit and community buildings
- the Domestic RHI (DRHI) has incentivised the deployment of ground and air source heat pumps, biomass boilers and solar thermal panels in single domestic dwellings
- both schemes operate in Great Britain only (there was a separate RHI scheme for Northern Ireland) and are administered by Ofgem

The NDRHI was open for applications between 2011 and 2021, and the DRHI was open for applications between 2014 and 2022. However, both schemes make payments in arrears for the heat that the installation generates, so although neither scheme is accepting new applications, the RHI will continue to make payments to installations that are already accredited onto the scheme for the renewable heat they generate – this will be until 2041 for the NDRHI and 2029 for the DRHI.

DESNZ's most recent estimate is that the RHI from November 2011 to March 2023 has so far generated almost 22 MtCO2e of GHG emission savings. The Programme has contributed to about 30% of the scheme total spend until March 2023, which is equivalent to about 6.2 MtCO2e of GHG emissions savings.

The RHI will continue to produce renewable heat throughout its lifetime, further contributing to the UK's low carbon goals. The RHI also helped to develop and sustain the UK's installer supply chain, supporting thousands of jobs, and stimulated the renewable heat installer base to enable the rollout of subsequent programmes such as the Boiler Upgrade Scheme, Home Upgrade Grant and Social Housing Decarbonisation Fund.

Programme contribution to the policy

Impact data on the RHI is available for the period November 2011 to March 2023. The estimated committed spend for the RHI over this period was £6,334 million, of which £1,789.74 million was funded by the Programme (28.3%).

Programme share of policy impact

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Environmental impacts					
Heat paid for, non-domestic RHI	25,205 GWh	Nov 2011-March 2023	Ex post	Recorded	Latest published data
Heat paid for, domestic RHI	2,292 GWh	April 2014-March 2023	Ex post	Recorded	Latest published data
GHG emissions savings, both domestic and non-domestic RHI	6.2 MtCO2e	Nov 2011-March 2023	Ex post	Estimated	Internal DESNZ estimate

Data sources and notes

GHG impact data from internal DESNZ estimates. Other impact data from '*RHI monthly deployment data: March 2023 (quarterly edition)*' released, April 2023.

Total spend data from internal DESNZ estimates.

The attribution of impacts is an estimate only and does not precisely reflect the profile of financing and activity over the project lifetime.

Multiple

The three expenditures under this category are overarching UK Official Development Assistance (ODA) portfolios (International Climate Finance), or UK ODA contributions to global schemes encompassing multiple projects (Global Environment Facility 7th replenishment and Green Climate Fund first replenishment). They are categorised as contributing to multiple Green Financing Framework categories as they each finance multiple projects with a diverse range of climate and environmental objectives.

The impacts for the below expenditures, along with Investments in Forests and Sustainable Land Use (Living & Natural Resources category), have been excluded from the aggregated overall Programme impact. Their estimated international impacts are presented separately in the summary of impacts.

Policies in this category

- Global Environment Facility 7th replenishment (GEF-7)
- Green Climate Fund first replenishment (GCF-1)
- International Climate Finance – DESNZ (ICF – DESNZ)

Environmental impacts attributable to the Programme

Metric	Programme impact	Impact period	Contributing policies
Expected greenhouse gas emissions mitigated	203 MtCO2e	Estimated lifetime impact of policy	GEF-7 GCF-1 ICF – DESNZ

Social co-benefits attributable to the Programme

Metric	Programme impact	Impact period	Contributing policies
Expected number of beneficiaries	52,600,000	Estimated lifetime impact of policy	GEF-7 GCF-1 ICF – DESNZ

Global Environment Facility 7th replenishment (ODA)

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Renewable energy, Energy Efficiency, Climate Change Adaptation, Clean Transportation, Living & Natural Resources	FCDO	37.50	37.50	75.00

Summary

The Global Environment Facility (GEF) is a family of funds dedicated to confronting biodiversity loss, climate change, pollution, and strains on land and ocean health. Its grants, blended financing, and policy support helps developing countries address their biggest environmental priorities and adhere to international environmental conventions. Over the past three decades, the GEF has provided more than $22 billion and mobilised $120 billion in co-financing for more than 5,000 national and regional projects.

GEF funding is provided by participating donor countries and made available to developing countries and countries with economies in transition to meet the objectives of international environmental conventions and agreements. Funds are transferred through 18 GEF Agencies to government agencies, civil society organisations, private sector companies, research institutions, among the broad diversity of potential partners, to execute projects and programs in recipient countries.

On 25 April 2018, close to 30 countries jointly pledged $4.1 billion to the GEF to better protect the future of the planet and human well-being. The GEF received strong support for its new four-year investment cycle, known as GEF-7, to help safeguard the world's forests, land, water, climate, and oceans, build green cities, protect threatened wildlife, and tackle new environmental threats like marine plastic pollution.

Programme contribution to the policy

The UK's committed funding to GEF-7 (2018-22) is £250 million, or 236.67 Special Drawing Rights (SDR). The total new commitments from donors to cover the GEF-7 work programme is 2,349.98 SDR. Resource carryover from GEF-6 and project investment income takes the total project resource for GEF-7 to 2,857.53 SDR. The UK's share of GEF-7 funding is 10.07% of new funding contributed by donors. This is the UK share figure used by the GEF and reflects that the UK had contributed to the GEF-6 resource carryover that results in the total GEF-7 project resource.

The Programme contributed £75 million of the UK's overall £250 million committed funding (30.00%). This equates to 3.0% of the total committed new resource for GEF-7.

Programme share of projected policy impact

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Environmental impacts					
Area of land restored	250,000 hectares	June 2018 – June 2022	Ex post	Estimate	
Greenhouse gas emissions mitigated	47 MtCO2e	June 2018 – June 2022	Ex post	Estimate	
Energy saved	13,208 GWh	June 2018 – June 2022	Ex post	Estimate	
Increase in installed renewable energy capacity	164 MW	June 2018 – June 2022	Ex post	Estimate	
Social co-benefits					
Total direct beneficiaries as co-benefit of GEF investment	6,700,000	June 2018 – June 2022	Ex post	Estimate	
Female direct beneficiaries as co-benefit of GEF investment	3,400,000	June 2018 – June 2022	Ex post	Estimate	

Data sources and notes

All impact data and analysis presented in this report for the GEF-7 are published by the Global Environment Facility. They are not based on UK government analysis or data sources.

Impact data taken from the '*GEF Corporate Scorecard, June 2022*'.

Total spend figures calculated from data on GEF-7 resources and UK commitments taken from the '*Summary of negotiations on the seventh replenishment of the GEF trust fund*', June 2018.

Impact data rounded to the same number of significant figures as the source data.

Green Climate Fund first replenishment (ODA)

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Renewable energy, Energy Efficiency, Climate Change Adaptation, Clean Transportation, Living & Natural Resources	FCDO	250.00	29.19	279.19

Summary

The Green Climate Fund (GCF) is the world's largest climate fund, mandated to support developing countries raise and realise their Nationally Determined Contributions (NDC) ambitions towards low-emissions, climate-resilient pathways.

The GCF invests across four transitions: built environment; energy and industry; human security, livelihoods and wellbeing; and land-use, forests and ecosystems. It employs a four-pronged approach:

- transformational planning and programming
- catalysing climate innovation
- de-risking investment to mobilise finance at scale
- mainstreaming climate risks and opportunities into investment decision-making to align finance with sustainable development

GCF's first replenishment (2020-23) is part of a long-term vision for the Fund, building it up to become a major global instrument for channelling public climate finance to mobilise the larger shifts in global financial flows required to achieve the Paris Agreement goals. As of mid-2022, 34 contributors had pledged $10 billion for GCF-1.

Programme contribution to the policy

The UK's committed funding to GCF-1 is £1,440 million ($1,851.9 million), as of 30 April 2023. The total committed funding for GCF-1 was $10,001.4 million equivalent with credits. The UK's share of GCF-1 funding is thus 18.52% of the total.

The Programme has so far contributed £279.19 million of the UK's overall £1,440 million committed funding (19.39%). This equates to 3.6% of the total projected resource for GCF-1.

Programme share of projected policy impact

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Environmental impacts					
Cumulative emissions avoided as a result of GCF projects	75 MtCO2e	GCF-1 project lifetime		Forecast as of March 2023	
Social co-benefits					
Number of people with increased resilience resulting from GCF projects	23,000,000	Cumulative from IRM and GCF1 period		Estimate as of March 2023	

Data sources and notes

All impact data and analysis presented in this report for the GCF-1 is analysis conducted by the Green Climate Fund. It is not drawn from UK government analysis or data sources but has been published in the FCDO annual review of the UK's contribution to the project.

Impact data taken from the '*Green Climate Fund First Replenishment annual review*', published March 2023.

Total spend figures calculated from data on GCF-1 resources and UK commitments taken from the '*Status of pledges and contributions (First replenishment: GCF-1)*', published April 2023.

Impacts are presented to the same number of significant figures as the source data.

International Climate Finance – DESNZ (ODA)

Green expenditure category	Department	Allocation of 2021-22 proceeds, £ million		
		2020-21	2021-22	Total
Multiple	DESNZ	580.47	431.77	1012.24

Summary

International Climate Finance (ICF) is ODA from the UK to support developing countries to reduce poverty and respond to the causes and impacts of climate change.

The UK's International Climate Finance Strategy outlines the UK's commitment to spend £11.6 billion of ICF from financial years 2021-22 to 2025-26. Over the five years covered by the strategy, UK ICF will focus on driving the rapid transformation and systemic shifts required to achieve the Paris Agreement goals and deliver on the Glasgow Climate Pact across the following four themes:

- clean energy – accelerate the clean energy transition
- nature for climate and people – protect, restore, and sustainably manage nature
- adaptation and resilience – adapt and build resilience to the current and future effects of climate change
- sustainable cities, infrastructure and transport – pursue low carbon economic growth and development

Programme contribution to the policy

ICF is jointly delivered by FCDO, DESNZ (previously BEIS) and DEFRA; this expenditure covers only DESNZ's share of ICF.

The source data for the results below have been calculated by the UK government to be entirely attributable to the UK's funding to ICF programmes across the whole portfolio, for the full lifetime of ICF programmes and for the whole portfolio of ICF programmes, rather than just the two years of BEIS (now DESNZ) ICF programming funded by the Programme.

The full budget for ICF in financial years 2011-12 to 2021-22 was £11.2 billion. The Programme contribution across this combined period was 9.0% of the total ICF funding. The combined ICF period has been used to reflect the source data estimating "expected total programme benefits", which includes all estimated past and future benefits from current or previous ICF programmes.

Programme share of policy impact

	Data value and units	Time period	Ex ante/ ex post	Recorded/ estimate	Notes
Environmental impacts					
Project lifetime GHG impacts	81 MtCO2e	Expected total programme benefits	Ex ante	Estimate	
Area where deforestation has been avoided	3,600,000 hectares	Expected total programme benefits	Ex ante	Estimate	
Area of land that has received sustainable land management practices	1,700,000 hectares	Expected total programme benefits	Ex ante	Estimate	
Capacity of renewable energy plants constructed or rehabilitated	610 MW	Expected total programme benefits	Ex ante	Estimate	
Social co-benefits					
Number of beneficiaries from adaptation projects	23,000,000	Expected total programme benefits	Ex ante	Estimate	
Number of people with improved access to clean energy	8,600,000	Expected total programme benefits	Ex ante	Estimate	

Data sources and notes

Impact data provided by DESNZ and available at *UK International Climate Finance Results 2022*.

The estimate of the Programme share of policy impact assumes that each pound spent on ICF has an equal impact on the impacts and co-benefits; in practice each programme within the ICF portfolio focuses on different impacts. Results for each ICF programme can be found on *devtracker*.

The majority of ICF programmes are multi-year and often there are significant time lags between investments and impacts.

Estimated policy lifetime data includes all past and future benefits from current and previous ICF programmes, including those expected to be delivered after a programme has closed.

Figures are rounded to two significant figures.

Total spend data is based on internal DESNZ estimates.

The Green Financing Programme funded these DESNZ ICF programmes under this expenditure:

- 2050 Calculator
- Carbon Initiative For Development (Ci-Dev)
- Clean Energy Innovation Facility (CEIF)
- Clean Energy Transition Programme (CETP)*
- Climate Ambition Support Alliance (CASA)
- Climate Finance Accelerator (CFA)
- Climate Investment Funds (CIFs)*
- Climate Leadership In Cities (CLIC)
- Energy Sector Management Assistance Programme (ESMAP)*
- Fiji Support Programme
- Green Climate Fund (GCF)*
- Knowledge, Evidence and Engagement Portfolio (KEEP)
- Market Accelerator for Green Construction (MAGC)
- Mobilising Finance for Forests (MFF)
- NDC Partnership
- Partnership for Market Implementation (PMI)
- Partnerships for Forests (P4F)*
- Renewable Energy Performance Platform (REPP)
- Sustainable Infrastructure Programme (SIP) – Latin America
- Territorios Forestales Sostenibles (TEFOS) / Forest, Communities and Sustainable Growth
- The Global Innovation Lab (the Lab)
- The Nationally Appropriate Mitigation Actions (NAMA) Facility
- UK Climate Investments (UKCI)
- UK Partnering for Accelerated Climate Transitions (UK PACT)

*only DESNZ share of UK contribution

Verification and assurance

Verification and assurance

Legal Considerations

This Report does not constitute, or form part of, a prospectus or other offering document.

This Report is not, and should not be construed as, an invitation or offer for sale or subscription of, or a solicitation of any offer to buy or subscribe for, any securities of HM Treasury in any jurisdiction or an inducement to enter into investment activity.

For further information, please refer to the Framework and, in particular, the section entitled "Green Financing and Legal Considerations" (which should be read as applying to this report in addition to the Framework).

Allocation assurance

Independent limited assurance report

Grant Thornton UK LLP ('Grant Thornton' or 'we') were engaged by HM Treasury ("HM Treasury") to provide limited assurance over the Subject Matter Information described below.

Limited assurance conclusion

Based on the work we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Subject Matter Information has not been allocated, in all material respects, in accordance with the Reporting Criteria.

This conclusion is to be read in the context of what we say in the remainder of this report.

Subject Matter Information

The scope of our work was limited to assurance over selected aspects of the HM Treasury's UK Green Financing Allocation and Impact Report ("the Report") for 2022-23, listed in the "2023 allocation (£ million) total" column of the allocation table in section 'Summary of Green Financing Programme to date', pages 14-21 of the Report ('the Subject Matter Information').

Our assurance does not extend to any other information that may be included in the Report for the current year or for previous periods unless otherwise indicated.

Reporting Criteria

The Reporting Criteria used for the measurement or evaluation of the Subject Matter Information and to form our judgements are the UK government Green Financing Framework, published in June 2021 ('the Reporting Criteria' or 'Framework').

Inherent limitations

The absence of a significant body of established practice on which to draw to measure or evaluate the Subject Matter Information allows for different, but acceptable, measurement or evaluation techniques and can affect comparability between entities and over time. In particular we draw attention to the methodological and assumption based limitations HM Treasury have disclosed in the Reporting Criteria.

We have assessed the accuracy of the proceeds from Green Financing to the Eligible Green Expenditures in accordance with the requirements for allocation reporting set out in the Reporting Criteria, but we have not validated whether the expenditures are Eligible Green Expenditures.

HM Treasury's responsibilities

The Management of HM Treasury are responsible for:

- the design, implementation and maintenance of internal control relevant to the preparation and presentation of Subject Matter Information that is free from material misstatement, whether due to fraud or error;
- selecting and/or establishing suitable Reporting Criteria;
- measuring or evaluating and presenting the Subject Matter Information in accordance with the Reporting Criteria; and
- the preparation of the Report and the Reporting Criteria and their contents.

Our responsibilities

We are responsible for:

- planning and performing the engagement to obtain limited assurance about whether the Subject Matter Information has been allocated in accordance with the Reporting Criteria;
- forming an independent limited assurance conclusion, based on the work we have performed and the evidence we have obtained; and
- reporting our limited assurance conclusion to HM Treasury.

Our independence, professional standards and quality control

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

We apply International Standard on Quality Management (ISQM) 1, 'Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements' and accordingly we maintain a comprehensive system of quality management including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Assurance standards and level of assurance

We performed a limited assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised) 'Assurance Engagements other than Audits and Reviews of Historical Financial Information' ('ISAE 3000 (Revised)'), issued by the

International Auditing and Assurance Standards Board (IAASB). These standards require that we plan and perform this engagement to obtain limited assurance about whether the Subject Matter Information is free from material misstatement.

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks which vary in nature from, and are less in extent than for, a reasonable assurance engagement.

Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Accordingly, we do not report a reasonable assurance conclusion.

Work performed

Considering the circumstances of the engagement our work included, but was not restricted to:

- assessing the suitability of the Reporting Criteria as the basis of preparation for the Subject Matter Information;
- assessing the risk of material misstatement of the Subject Matter Information, whether due to fraud or error, and responding to the assessed risk as necessary in the circumstances;
- conducting interviews with relevant HM Treasury management and examining selected documents to obtain an understanding of the processes, systems and controls in use for measuring or evaluating, recording, managing, collating and reporting the Subject Matter Information;
- performing selected limited substantive testing including agreeing a selection of the Subject Matter Information to corresponding supporting information;
- evaluating the overall presentation of the Subject Matter Information; and
- reading the Report and narrative accompanying the Subject Matter Information in the Report with regard to the Reporting Criteria, and for consistency with our findings.

Intended use of this report

This limited assurance report, including our conclusion, is made solely to HM Treasury in accordance with the terms of the agreement between us. Our work has been undertaken so that we might state to HM Treasury those matters we are required to state to them in an independent limited assurance report and for no other purpose. We have not considered the interest of any other party in the Subject Matter Information.

To the fullest extent permitted by law, we do not accept or assume responsibility and deny any liability to any party other than HM Treasury for our work or this report, including our conclusion.

Grant Thornton UK LLP

Grant Thornton UK LLP
Chartered Accountants
Cambridge
28 September 2023

The maintenance and integrity of HM Treasury's website is the responsibility of the Management; the work carried out by us does not involve consideration of these matters and, accordingly, we accept no responsibility for any changes that may have occurred to the reported Subject Matter Information, the Report or the Reporting Criteria presented on HM Treasury's website since the date of our limited assurance report.

Impact verification

Report of factual findings to the Management of HM Treasury ("HMT")

Responsibilities of the Engaging Party

HMT has acknowledged that the agreed-upon procedures are appropriate for the purposes of the engagement and that it is responsible for the subject matter on which the agreed-upon procedures are performed.

Practitioner's responsibilities

We have conducted the agreed-upon procedures engagement in accordance with the agreed scope. An agreed-upon procedures engagement involves our performing procedures that have been agreed with HMT, and reporting the findings, which are factual results of the agreed-upon procedures performed. We make no representation regarding the appropriateness of the agreed-upon procedures.

This agreed-upon procedures engagement is not an assurance engagement. Accordingly, we do not express an opinion or an assurance conclusion.

Procedures and Findings

We have performed the procedures described below, which were agreed upon with HMT in the terms of our call-off contract dated 6 September 2023 and are subject to the terms and limitations set out therein.

The procedures were performed solely to assist you in the verification of impact included within the UK Green Financing Allocation and Impact Report for 2022-23 and we report our findings below:

- HMT have commissioned impact data for all eligible green expenditures.
- The data commissioned by HMT aligns with the relevant environmental impact metrics and social co-benefits listed in Table 1 of the Green Financing Framework published in June 2021, where possible.
- For each eligible green expenditure, departments have returned impact data or indicated that impact data is unavailable or unsuitable for publication.
- The inputs into HMT's impact data spreadsheet match the published data provided by departments, where available, for each eligible green expenditure and HMT has appropriately inputted the data for its analysis.
- The process of pro-rating and aggregating source impact data to estimate the GFP share of impacts for each project and to estimate the total impact of the Green Financing Programme is conducted in a consistent manner across each input.

Our report is prepared solely for the use of HMT and for the purpose summarised above. Grant Thornton UK LLP neither owes nor accepts any duty to any other party and shall not be liable for any loss, damage or expense of whatsoever nature which is caused by other parties' reliance on our report.

Grant Thornton UK LLP
Chartered Accountants

London
28 September 2023