

Environmental Sustainability Annual Report 2020-21



Image by Jing Fang, Sustainable photographer of the year awards, 2020



Contents

SECTION 1 INTRODUCTION	. 3
Foreword by Harriet Waters	3
Introduction and overview of the report	4
Structure of the report	5
A snapshot of environmental sustainability at Oxford University	6
SECTION 2 REPORTING CHAPTERS	. 7
Research	8
Curriculum	9
Carbon emissions from University buildings1	10
Biodiversity1	12
Sustainable food1	14
Sustainable resource use1	15
International travel1	16
Local travel1	17
Investments1	18
Learning from the pandemic1	19
SECTION 3 ENGAGEMENT2	21
Green Impact	21
Student Switch Off	21
Campaigns and Events	22
CONCLUSIONS	23



SECTION 1 INTRODUCTION



Image by Lhuri Rahmartani, Sustainable photographer of the year awards, 2020

Foreword by Harriet Waters

Our year in the Environmental Sustainability team has been dominated by the development of the University's first sustainability strategy, which was approved by Council on 15 March 2021. It sets ambitious, bold targets and establishes the University's approach to environmental sustainability for the coming years. Two aspects of the Strategy that I am especially proud of are that it has been fully costed, including four streams of income, and that it includes biodiversity net gain as a main target.

We have also set up a new subcommittee to take responsibility for environmental sustainability at the University, embedding the subject within its governance structure more closely than ever before. The Environmental Sustainability Subcommittee (ESSC) is chaired by Dr David Prout and draws its membership from across the academic and senior leadership of the University.

With government restrictions nationally lifted in July this year, we are hoping to return to more normal day-to-day interactions with colleagues across the University. This gives us an opportunity to use the lessons learned during the pandemic to move to a more sustainable 'normal'. Remote working has really tested our resilience and ability to change; we have coped without flights, used much less paper, and many of us have made sustainable changes in our home lives. We aim to build on New Ways of Working with Environmental Sustainability considerations in mind.

This year, for the first time, the University will report its environmental performance as part of the annual financial reports. The data presented in these financial reports is the result of methodology that was developed to capture the direct and indirect impacts of the University's activities on carbon emissions and biodiversity loss.

Personally, I believe this is a very exciting time to be working within the University community, implementing our Strategy over the coming years together. It is not going to be easy, and in some areas, we are not yet sure how to do it, but there is a real sense of hope and enthusiasm which we hope to harness.

Harriet Waters Head of Environmental Sustainability Estates Services, University of Oxford



Introduction and overview of the report

Introduction

This report reviews the environmental sustainability work of the University of Oxford over the period August 2020 to July 2021.

It focuses on the University's functional estate – the buildings used for its day-to-day activities. It includes all the buildings and facilities that either support or directly deliver research or education, such as specialist research buildings, teaching laboratories, lecture halls, sports facilities, libraries, museums, offices and ceremonial buildings.

The quantitative data in this report comes from the published Estates Management Record return for 2019/20 from the Higher Education Statistics Agency where appropriate. The report does not cover the operations or buildings of the colleges or of Oxford University Press, which are independent entities.

We would welcome feedback from our readers to help us continue to improve the way we communicate our environmental sustainability performance.

For more information, contact the Environmental Sustainability team.

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Overview

The biggest sustainability milestone reached in this reporting period was the approval of the new Environmental Sustainability Strategy by the University council on 15 March 2021, following intensive effort by a working group and two University-wide consultations.

The Strategy sets two ambitious targets: to achieve net zero carbon and biodiversity net gain, both by 2035, to address the global challenges of climate change and biodiversity loss in our organisation. The University will establish a new Oxford Sustainability Fund, making £200 million available for sustainability initiatives over the next 15 years.

The new targets builds on the University's previous goal of reducing carbon emissions by 50% from their peak of 2009/10. We will achieve a net gain in biodiversity by reducing the negative impact of our operations and supply chain, making biodiversity enhancements on and off the estate, achieving a 20% net gain on all new development plans, and using biodiversity offsetting where necessary.

We will set interim five-year targets and we will share our progress annually. We will also give the University community opportunities to engage with the Strategy and contribute to achieving its goals. We will review the Strategy every five years.

A second milestone achieved during this period includes the creation of the Environmental Sustainability Subcommittee (ESSC), a subdivision of the Planning and Resource Allocation



Committee (<u>PRAC</u>). It is responsible for the Oxford Sustainability Fund, overseeing income and expenditure and making recommendations on the annual budget to PRAC.

As we look forward to a new academic year, we plan to continue implementing our environmental sustainability programme, initiate the new Oxford Sustainability Fund, contribute towards a new business travel policy and nurture positive environmental behaviours through the New Ways of Working Framework.

Download and read more about the Strategy <u>here</u>. You can find the subcommittee members and meeting dates <u>here</u>.

Structure of the report

The Environment Sustainability Strategy identifies ten priority areas for which the University is committed to act upon. To read the detailed commitments for each priority, see the <u>Strategy</u> <u>document</u>. Each of the ten chapters in this annual report corresponds to one of the priority areas as follows:

- Research
- Curriculum
- Carbon emissions from buildings
- Biodiversity
- Sustainable food
- Sustainable resource use

- International travel
- Local travel
- Investments
- Learning from the pandemic

We have also included an Engagement chapter to present our work on engaging with the wider University community to help achieve our environmental goals.



Image by Sarah Rhodes, sustainable photographer of year awards, 2019

A snapshot of environmental sustainability at Oxford University



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SECTION 2 REPORTING CHAPTERS



Image by Molly Archer-Zeff, sustainable photographer of year awards, 2019



Research

Increase research and engagement in environmental sustainability

Oxford University conducts critical research on climate, energy, food, water, waste and biodiversity – looking for causes, answers to and solutions for these pressing global problems. <u>Oxford Networks for the Environment</u> (ONE) brings together the University's expertise in science, technology, business and society to address complex and converging challenges. There are currently five Networks for the Environment: Biodiversity, Future of Food, Climate, Energy and Water. Members of the network cooperate in a multi-disciplinary approach and across departments in the University.

The True Planet campaign aims to disseminate knowledge obtained through research focuses on environmental challenges with governments, industries, charities, educational institutions, UN entities and the broader public. During the past year, True Planet has made over 60 research topics accessible to a wide audience through <u>news articles</u> on the website.

Over this year, there have been 421 papers (190 first author papers; 60 last author papers) published under the theme of environmental sustainability of which 70% are open access. These papers include contributions to leading scientific journals such as Nature, Energy and Environmental Science, Global Change Biology, Conservation Letters and Applied Energy.

The Oxford Net Zero Initiative is a growing network of leading interdisciplinary researchers from across the University, who bring together principles and policies, practical tools, and progress tracking to help businesses and policymakers achieve net zero emissions. In November 2020, the Oxford Strategic Research Fund (SRF), which supports transformative research, awarded the Oxford Net Zero £2.2m to address this research challenge.

Looking forward, ESSC will form a new Research subgroup consisting of academics and senior management to promote communication, coordination and collaboration, and support interdisciplinary sustainability research teams in responding to the major environmental challenges and funding opportunities.



Curriculum

Offer all students the opportunity to study environmental sustainability, either within or outside the examined curriculum

Based on data from ONE network, Oxford University offers more than 80 courses relating to the environment, with over 2,000 students currently enrolled on these courses.

Environmental sustainability issues can be embedded into any degree and is not limited to environmentally focused degrees. The Strategy sets a goal to offer all students the opportunity to study environmental sustainability, regardless of their course. The University is currently in the process of creating a comprehensive database to enable us to monitor progress towards this goal.

Oxford University offers additional opportunities for environmental sustainability education through several student societies that focus on a wide range of topics, including climate, veganism, animal rights, conservation, and sustainable business. One outstanding example of these extracurricular activities is the <u>Oxford School of Climate Change</u>, run by the student-led Oxford Climate Society.

Looking forward, ESSC will create a new Curriculum subgroup that will work to increase sustainability content both within and outside the set curriculum. The subgroup will report back in Michaelmas term 2022.



Image by Gudrun Jakobsdottir, sustainable photographer of year awards, 2019



Carbon emissions from University buildings

Reduce carbon emissions related to our energy consumption to a minimal level

During the pandemic, with most University staff working from home, we experienced a reduction in scope 3 emission associated with the operation of the estates:

* Staff data is based on responses to New Ways of Working questionnaire



during all of the pandemic period 4.9% of staff

working on site for the whole of the pandemic period



from the reduction in waste, water consumption and wastewater production

Calculating Oxford's Carbon Footprint

The University releases carbon emissions directly from our activities and indirectly through our supply chain.

Following a detailed review of best practice, the University accounting practices will be updated. This will pilot the WRI GHG Protocol's Corporate Standard (Scope 1 and 2 emissions) and the Corporate Value Chain Standard (Scope 3 emissions). The approach provides a robust standard against which to measure University emissions, accounting for the gross emissions and recoveries separately from offset emissions through our value chain.

The table opposite offers a summary of emissions from the University. A more detailed overview of the methodology applied can be found in the main University annual report.

Category	Gross tCO₂e	Net tCO₂e
Total Scope 1, 2 & 31	281,679	258,795
Scope 1	13,563	13,563
1.1: Operations Fuel		
Consumption	17,781	17,781
1.2: Fleet Fuel Consumption	316	316
1.3: Change in Land Use	-4,534	-4,534
Scope 2	22,883	0
2.1: Electricity	22,883	0
Scope 3	245,232	245,232
3.1 & 2: Goods and Services	168,443	168,443
3.3: Upstream Energy	8,991	8,991
3.4: Upstream Transportation	528	528
3.5: Waste	644	644
3.6: Business Travel	19,888	19,888
3.7: Employee Commuting	5,885	5,885
3.16.1: Student Term-Time		
Commuting	1,089	1,089
3.16.2: Student Interterm		
Commuting	39,764	39,764



We are in the process of updating our reporting and billing systems for energy consumption to provide a clear understanding of which buildings we need to focus on. This year we have separated carbon emissions across the divisions, which has not previously been done.

The table below shows Scope 1 and 2 carbon emissions from grid electricity, natural gas and fuels.

Division	Total Emissions tCO₂e (19/20)	
Continuing Education	374	
Gardens, Libraries and Museums	3,244	
Humanities	948	
Maths, Physical and Life Sciences	13,198	
Medical Sciences	21,796	
Social Sciences	2,647	
University Administrative Services	2,426	
Total Emissions	44,633	

The University took significant steps towards securing the necessary resources to deliver its carbon emission reduction plans. A sustainability consultancy framework has been awarded to support the development of sustainable laboratories, mechanical and electrical services and building fabric. In addition to these consultancy contracts, preferred suppliers were identified for energy efficient equipment.

These suppliers are expected to deliver up to £1m of services to the University annually helping us reach our carbon management ambitions.

Carbon Management Fund

The carbon management fund's total spends during 2020/21 was £865,922 by the end of the financial year. Carbon Reduction works are expected to accelerate as the Environmental Sustainability Strategy is delivered.

Extensive progress has been made toward a management programme enabling the team to track live projects and create a comprehensive project pipeline.



Biodiversity

Identify and address the University's principal biodiversity impacts through its operations and supply chain, and enhance biodiversity on the University's estate

Oxford University has set the strategic ambition to achieve a net gain in biodiversity by 2035. The biodiversity impact for the financial year 2019/20 is shown in the chart. Impacts are broken down according to five areas of activity:

- Resource Use & Waste
- Food
- Natural Environment
- Building Environment
- Travel

This data includes the full University supply chain and mirrors the scope of the carbon

accounts. The analysis represented in this chart shows that the majority of the impact on biodiversity by the University is in the category of 'Resource Use & Waste'. This would include the manufacture, production and disposal of all equipment and materials across the University,

excluding construction and food.

The University can reduce the impact it has on biodiversity by working with suppliers to reduce supply chain environmental impacts. Many suppliers are already supporting the University to introduce less resourceintensive products, for instance laboratory pipettes with reduced plastic content.

By calculating the approximate relative impact on biodiversity associated with different aspects of the University's activities, it is possible to prioritise actions for mitigating impacts. Annually calculating these impacts allows trends to be monitored.



Figure 1: Biodiversity impact according to pollution sources The impact of the University's activities calculated by its impacts on pollution sources, GHG emissions and land use.

"The University is making a serious commitment to restoring biodiversity both globally and in our own backyard. Biodiversity loss often gets left out of discussions about environmental sustainability, so I'm proud that Oxford has taken a lead."

Professor EJ Milner-Gulland, Tasso Leventis Professor of Biodiversity University of Oxford



Old Road Campus Biodiversity Enhancement

Following a habitat survey and consultation with colleagues, several measures to enhance biodiversity have been implemented this year. These include planting a small number of native fruit trees and a wildflower-rich margin opposite the Wellcome Centre. Future measures include further planting of wildflower meadows near Roosevelt Drive.



Figure 2. Old Road Campus biodiversity enhancement project. Top Left to bottom right: Native fruit tree, seeding wildflowers with staff members,

corn Marigold in the wildflower margin section, grassland fungi found on University campus.

Images by Harriet Waters and Adam Bows.



Sustainable food

Reduce the carbon emissions and biodiversity impact of our food

Following Oxford research showing that the most effective way to reduce the carbon footprint of our diet is to <u>consume less meat and dairy and eat more plant-based foods</u>, this is what we are focusing on.

Throughout the year, due to Covid limitations, University outlets worked in extremely limited capacity serving 2,100 hot meals compared to 241,839 sold in the 2018-2019 academic year.

Will limited ability to promote our target on site, we focused efforts on engaging with the University community to drive behavioural change through Sustainable Food month, Fairtrade fortnight and Switch Up your lunch Campaign.

In addition, we continue our cooperation with members of Oxfordshire Catering and Procurement Working Group led by Good Food Oxford network to implement our commitments.



Figure 3: Examples of Switch Up Your Lunch campaign social media posts showcasing a wide variety of deliciouslooking vegetarian food served by colleges and outlets across the University on the day.

Oxford University Museum of Natural History 'Eat the Future' exhibition and cafe

The Oxford University Museum of Natural History opened an exhibition titled 'Meat the Future' in May 2021. The exhibition presents aspects of meat consumption in cooperation with Martin School's <u>Livestock</u>, <u>Environment and People (LEAP) project</u>. Alongside the exhibition, a temporary cafe called 'Eat the Future' was set up, which aligns with the exhibition's message. The café experiments with eco-labelling where each dish on the menu has been given an environmental impact score from A to E.



The exhibition and <u>programme of events</u> exploring the connection between meat and planetary and personal health will run until 16 January 2022.



Figure 4. Eat the Future Café branding with examples of the eco-labelling of foods.

Sustainable resource use

Reduce the environmental impacts of our consumption and supply chain

- Since October 2014, the Waste Action Reuse Portal (WARP-it) has helped the University avoid sending 35,630kg of office items to waste. This is a financial saving of £300,130 and an estimated CO₂e saving of 149,549kg.
- In June 2020, the University stopped issuing paper payslips. It is estimated to save approximately 25 trees a year and save the University more than £31,000 in paper and printing costs annually.
- The Environmental Sustainability laboratory project <u>offers a list of University preferred</u> <u>lab equipment suppliers who provide sustainable services and products</u> and held an online supplier sustainability exhibition.
- The Kennedy Institute of Rheumatology at Old Road Campus, which was built to meet Passivhaus standard, set an example by furnishing sections of the building with second hand furniture obtained from WARP-it and other building clearances. Additionally, the old roof terrace furniture and other surplus items were rehomed through WARP-it.
- The COVID-19 pandemic caused building closures across the University's estate in 19/20. This resulted in a 550 tonne reduction in total waste for this period.
- The pandemic and remote working led to a dramatic reduction of paper consumption across the University, as shown in Figure 5 below.



Figure 5: Paper purchased by the University (2018-2021).

There has been a steep decline in paper purchased over the last three years from 32.6 million sheets to 7.7 million sheets (Office Depot data).

International travel

Reduce aviation emissions from University staff and student travel, and offset the balance of emissions

"We are looking hard at our own strategic business model.... the elephant in the corner [are] those emissions that.... occur when we source goods and services, when our academics fly off to meetings, and visitors and students fly in from all over the world. Developing a comprehensive net zero plan as a global university is essential for Oxford to take a lead in sustainability in the higher education sector."

Professor Myles Allen, leader of climate research programme Oxford Net Zero University of Oxford

During the pandemic, flights bought through the University's preferred supplier dropped by over 95% compared to 2018–19, the last full year before the pandemic. This represents carbon savings of an estimated **28,500 tonnes**.

Measures underway include:

- The University is developing a guide on how to organise a low-carbon conference using virtual, hybrid and multi-hub models, due for publication in 2021-22. This guide will be based on results gathered from a study commissioned by the University to help understand the current provision and requirements for online conferences and events.
- Podcast and toolkit providing resources and <u>guidelines to support the travel for business</u> <u>hierarchy</u>.

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Local travel

Limit transport emissions by reducing the need to travel, encouraging walking, cycling and the use of public transport and managing the demand to travel by car

Of those staff who responded to the New Ways of Working questionnaire, 75% said they had been working from home throughout the pandemic, with 4.9% working on site for the whole period. This affected local transport substantially during the past year.

To support key workers during the pandemic the University offered approximately 1,000 temporary parking permits, free of charge to ensure easy access to their workplace.

Measures developed during 2020-21 have focused on planning for and supporting sustainable commuting when onsite working resumes. Examples include:

- Offered University staff up to 30% off the cost of local bus travel tickets for commuting. Subsidised by the <u>University's Green Travel Fund</u> with matching contributions from local bus companies.
- Collaborating with local organisations to celebrate cycling and support individuals adjusting to commuting by bicycle.
- The University agreed to introduce a salary sacrifice scheme on bike purchases and electric cars. Details will be announced during Michaelmas term 2021
- Developing a new flexible car parking permit system to facilitate the long-term move to greater use of hybrid and flexible working.



Image by Jing Fang, Sustainable photographer of the year awards, 2020



Investments

Ensure that the University, as an investor, is part of the solution to climate change and biodiversity loss

The University of Oxford has substantial financial investments, most of which are charitable endowment funds, managed by Oxford University Endowment Management (OUem), a specialist investment team. This is a wholly owned subsidiary of the University and manages over £5bn of charitable money on behalf of the collegiate University.

As part of the Environmental Sustainability Strategy, the University has published an Investment Policy Statement that describes how the University manages its investment assets, outlining the governance structure, investment objectives and processes relevant to environmental sustainability and climate change. The University has also placed a restriction on direct investments in fossil fuel extractors.

In November 2020, Huw Van Steenis was appointed to the Investment Committee. He is responsible for supervising the management of the University of Oxford's investment assets, including strengthening and consolidating the oversight of sustainability across the University's investments. "I look forward to contributing to the Investment Committee and Oxford University Endowment Management's ongoing success and advising the University to ensure a clear and accountable approach to oversight of its investments and their sustainability"

Huw van Steenis, 2020



Image by Stefania Monterisi, Sustainable photographer of the year awards, 2020



Learning from the pandemic

Build on the experience of the pandemic and the potential shift to more environmentally sustainable working practices

The University of Oxford is committed to making changes to accommodate new ways of working that improve sustainability and wellbeing, following the lessons learned during the pandemic. The biggest of these changes involves introducing hybrid forms of working for professional services staff.

The Government's work from home order upended the traditional way of working for many people at the University. This shed light on the potential benefits for environmental sustainability, wellbeing, and equality.

Upon returning to work on site, the environmental sustainability team set a guide and internal campaign to encourage staff members to incorporate environmental sustainability considerations when applying new ways of working. This focus on changes experienced in the past year.



Figure 6. Part of the campaign aiming to encourage staff members to rethink practices upon returning to work on site



Hybrid events

In September 2021, University Administration and Services produced the first hybrid Professional Services Conference, with all sessions available on Microsoft Teams with live captioning. This was a great opportunity to trial new ways of holding large-scale events. It is acknowledged that hybrid event set-up requires investment in equipment and human resources – the University is looking into various types of equipment in venues to accommodate hybrid working and teaching. This will allow the University to continue offering world-leading academic events but will reduce the need for international travel for those who present and participate.



The Bodleian Library



SECTION 3 ENGAGEMENT

Green Impact

One of our primary tools for engaging with staff is Green Impact. In the past year, we had 18 active teams, including 124 colleagues across the University. A new category titled 'Working from Home' was introduced to the workbook to include actions that can be achieved by teams working remotely.

Despite the new category being added to the workbook, Green Impact workbook progress was understandably heavily affected by staff not being in the office.

Over the year, four teams attained Beyond Gold level, one reached Gold, three attained Silver, and one earned the Bronze award.

For the launch of the new Green Impact workbook 2021-22, the online portal was altered to reflect the new Strategy.

Student Switch Off

The Student Switch Off programme is our primary tool for engaging students operating across the colleges. Student Switch Off is a campaign run by <u>Student's Organising for Sustainability UK</u> (SOS-UK) in response to the climate emergency and ecological crisis.

This year it engaged 1,114 students, including 934 taking part in the national climate activities.

Going forward to the 2021-22 academic year, Student Switch Off will evolve into <u>The Oxford</u> <u>Carbon Challenge</u>, offering students a wider range of engagement and behaviour change pledges based on the Giki Zero online portal.



Figure 7. Example of steps offered to students in the Oxford Carbon Challenge platform. Each step taken is rewarded with points and reflects in the individual's carbon footprint record. College teams compete against each other.



Campaigns and Events

During the past year, the environmental sustainability team run a diverse range of engagement and training activities throughout the year, as well as campaigns and events designed to educate and inspire staff and students on all aspects of sustainability. Due to COVID-19 restrictions, engagement was mostly offered online.

Here are some examples of activities:

- The photographer of the Year 2021 competition was very popular, with 115 photos submitted. The theme was 'Looking Forward'. Our five winning photos can be seen <u>here</u>.
- We offered SOS-UK's environmental auditing training course (approved by the Institute of Environmental Management and Assessment) to students for the purpose of assessing Green Impact workbooks. This was completed by 11 students.

""I thoroughly enjoyed [the training] and feel much more informed about the work of Green Impact...and feel very inspired to try and become part of a team or push for my college to create a team of its own!"

Sophie Griggs, student at Worcester College

 We celebrated World Environment Day this year by creating a Biodiversity Treasure Hunt to encourage our community to take inspiration and visit one of the great natural habitats in the area, discovering the vast array of species right on our doorstep. You can download the treasure hunt here.

We also ran themed campaigns, with different levels of engagement, around Cycle September, Sustainable Food Month, Fairtrade Fortnight, and Plastic Free July.



Image by Bekki Tordoff, Sustainability photography of the year awards, 2021



CONCLUSIONS

The coming year is expected to offer plenty of opportunities for staff and students to engage with environmental sustainability.

Moving forward with implementing the University's strategic goals for environmental sustainability is a cooperative process with members of ESSC, the environmental sustainability team, and colleagues from across the University community.

The forthcoming activities set a challenge as well as a real sense of hope and enthusiasm, which we hope to harness.

We extend an invitation to all staff and students to engage with Green Impact and other initiatives to pursue better environmental practices in their department, building, lab, or team.

For more information, contact the Environmental Sustainability team:

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