WEDNESDAY 18 NOVEMBER 2020 • SUPPLEMENT (1) TO NO 5293 • VOL 151

Gazette
Supplement

UNIVERSITY OF OXFORD

Draft Environmental Sustainability Strategy

The draft Environmental Sustainability Strategy is being published as part of the University-wide consultation with staff and students on behalf of the Planning and Resource Allocation Committee (PRAC) approved on 13 October 2020. Responses to the consultation on the strategy can be submitted through the online consultation survey https://sustainability.admin.ox.ac.uk/consultation) or sent to sustainability@admin.ox.ac.uk by 6 December 2020.

1. Vice-Chancellor's foreword

We are living in extraordinary times. We are experiencing what happens when we all ignore warning signs and fail to act to avert adverse consequences. There had been numerous indications that we were vulnerable to a global pandemic; we ignored them and are paying the price. We cannot do so again.

Today there are innumerable warnings of the impending dangers of climate change and biodiversity loss. We must heed them. Doing so will entail real changes to how we live and work. Just as we have had to challenge all aspects of business as usual in order to be resilient during the pandemic, dealing with the consequences of climate change will require significant, often unwelcome, changes in our daily lives.

In my 2019 Oration I asked whether we were doing enough at the University to address these challenges within our own community. The resounding conclusion from a consultation with staff and students was 'no'. In response to that engagement we have developed this ambitious strategy – the outcome of the Environmental Sustainability Strategy Working Group, which is made up of academics and our Environmental Sustainability team. They have worked together to set targets and identify the key areas where we can act. This strategy will have implications for us all.

The University of Oxford is committed to leading the way on environmental sustainability through its research and teaching. This strategy extends that commitment to our operational impact, our supply chain, our investments, our daily working lives. Our aspiration is that staff, students and stakeholders will embrace the strategy in all aspects of University life.

Professor Louise Richardson

2. President of the Student Union's foreword

As a Student Union we are very proud to endorse this strategy and its targets and commitments. We were consulted throughout the development of the strategy and the result is a direct reflection of a shared vision which the community of environmentally concerned students brought to the administration.

This strategy follows years of advocacy from the University's students. In autumn 2019, we hosted our first-ever Oxford University Climate Assembly, which filled the Sheldonian Theatre with over 750 attendees and hundreds more online. This forum formed the first step in consulting with students and the academic community to draft an Environmental Sustainability Strategy, whose goals have received overwhelming support from students. Over the last three years students have brought dozens of representations through the Student Council of Oxford SU to the University. Common rooms across almost every college have passed resolutions on topics from sustainable dining to energy efficiency to divestment and environmentally conscious investment. The Oxford Climate Society, one of many environmentally focused student groups, has grown to become the largest student society. Their self-organised School of Climate Change offers students free lectures in climate solutions by climate professors each week. Members and leaders of student environmental groups have provided input, and Ethics and Environment representatives in every college are helping connect the strategy's goals with college sustainability plans.

We are especially proud that this strategy will bring the University of Oxford into alignment with the Paris Agreement, and that it requires us to work deeply across our operations and supply chain to facilitate a post-carbon transition in our lifetimes. This is just the start for Oxford in preparing a proportional response to the urgency that we feel as young people who will inherit the future under a changing climate.

Ms Nikita Ma

3. Executive summary

Oxford University[1] is setting a target to achieve net zero carbon[2] and biodiversity net gain[3] by 2035 to address the global challenges of climate change and biodiversity loss in our organisation. The strategy focuses on these nine priority areas:

Research

Increase research and engagement in environmental sustainability

Curriculum

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

Carbon emissions from University buildings

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

Biodiversity

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

Sustainable food

Reduce the carbon emissions and biodiversity impact of our food

Sustainable resource use

Identify and reduce the environmental impacts of our consumption and supply chain

International travel

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

[1]Oxford University for purposes of this strategy excludes Oxford University Press and all colleges, except Kellogg and St Cross Colleges.

[2]Net zero carbon – the University will account for carbon emissions associated with its Scope 1, 2 and 3 activities, reduce them as much as possible and then balance residual emissions through carbon offsetting to reach net zero carbon by 2035. The University will use its peak energy consumption of 2009/10 as its carbon baseline. Scope 1 emissions are direct emissions, primarily from gas used for heating buildings. Scope 2 emissions are indirect emissions from electricity generation for use in University buildings. Scope 3 emissions are all other indirect emissions from activities of the organisation including travel, procurement, waste, water and investments.

[3]Biodiversity net gain – the University will account for the biodiversity impacts from development on its estate, management of its estate and its operations, and supply chain, avoiding and reducing these impacts as much as possible and using biodiversity offsetting to compensate for its residual impacts, so that by 2035 biodiversity will be overall demonstrably enhanced as a result of the University's activities, across its whole portfolio. We will use 2018/19 as our biodiversity baseline.

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

Investments

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

The strategy is underpinned by these four 'enablers':

- embedding environmental sustainability in the University's governance and decision making;
- developing a system of annual reporting of carbon emissions and biodiversity impact within the first twelve months;
- establishing the Oxford Sustainability Fund to finance the programme of action required to reach net zero carbon and biodiversity net gain by 2035;
- establishing a policy to guide our use of carbon offsetting[4] and biodiversity offsetting.[5]

We will develop a large-scale engagement programme to build support for the strategy, reduce carbon emissions, restore and enhance nature and improve wellbeing.

We will tackle the major sources of carbon emissions from the University. We will achieve net zero carbon through a variety of measures: engagement, energy efficiency projects, recovering savings on utilities from the carbon emissions reduction, applying a sustainability charge to flights, reduction of flights and carbon offsetting.

The University's major biodiversity impact is from our operations and supply chain. We will quantify this impact and then achieve biodiversity net gain by avoiding and reducing these impacts; by achieving a net gain on new developments; by enhancing biodiversity on and off the estate; and through biodiversity offsetting.

[4]Carbon offsetting – a process whereby carbon or carbon-equivalent gases are removed from or prevented from entering the atmosphere and stored securely, for the purpose of compensating for University emissions.

[5]Biodiversity offsetting – conservation and restoration activities undertaken to enhance biodiversity for the purpose of compensating for biodiversity losses and impacts that arise from the University's development, management of its estate and its operations, and supply chain.

4. Vision

An unstable climate, increasing carbon emissions and accelerating biodiversity loss require urgent action.

The University is already playing a leading role in tackling these issues through the application of its research and educating its students. Our research and policy advice has a positive impact. In this strategy our focus is on addressing the negative impacts of our own operations. We will prioritise a programme of carbon reduction and biodiversity enhancement in our organisation. The University's environmental impacts will be identified, avoided and reduced. Our approach will be transparent; we will publish an annual account of our environmental impacts and progress towards our sustainability goals.

By 2035, the University, working in partnership with government, sustainability leaders and its own communities, will be exemplary in its institutional response to the environmental and climate emergency. Our ambition is to play an important role in protecting, restoring and enhancing nature.

5. Context

The University has already worked for many years to reduce its environmental impact. The University's new target of net zero carbon by 2035 will supersede our existing carbon target of reducing carbon emissions by 50% from their peak of 2009/10.

The University's Strategic Plan refers to new buildings adhering to the highest environmental sustainability standards and to increasing sustainable travel opportunities for staff and students.

Energy consumption in University buildings

For the last decade all the University's electricity has come from renewable sources. Since 2013 our Carbon Management Programme (CMP) has invested £1 million a year in carbon reduction projects across our estate. The CMP has contributed to the 40% decline in the University's Scope 1 and 2 emissions from utility use from their peak in 2010. Our Sustainable Labs programme addresses energy reduction, energy-efficient equipment, waste and recycling in laboratories, which are responsible for around 60% of the University's total energy consumption and carbon emissions.

New developments on the University estate

All building projects over £1 million must be designed using the Passivhaus method according to the Sustainability Design Guide (https://sustainability.admin.ox.ac.uk/files/estatesservicessustainabilitydesignguidepdf); this significantly reduces their carbon emissions and energy running costs. The guide informs design to achieve long life, flexibility, low environmental impact, accessibility, low maintenance, end-of-life recycling and net gain in biodiversity.

Sustainable travel

We fund sustainable transport initiatives including promotion of walking, cycling and use of public transport through income from staff parking charges, which raise over £400,000 a year. Over several years parking provision has been gradually reduced, prioritising those with disabilities or childcare responsibilities.

Research

True Planet (www.research.ox.ac.uk/Area/trueplanet) brings together Oxford's global research on climate, energy, food, water, waste and biodiversity, showcasing the worldwide impact of the University's cross-disciplinary research. Our researchers collaborate with industry, government, the third sector and other universities to solve real-world sustainability problems. The Oxford Networks for the Environment (ONE) mobilise the University's expertise in science, technology, business and society. They enable Oxford to find solutions to the complex, converging challenges of energy, water and food security, climate change and threats to biodiversity. ONE contributes to humanity's capacity to make sustainable use of our natural resources for the benefit of all people and for the natural world.

While all these actions have advanced environmental sustainability at the University, they are not enough to achieve our new 2035 target. We need to do more.

6. Our strategy

The University will achieve net zero carbon and biodiversity net gain by 2035 and will act in nine priority areas.

The strategy will be reviewed annually to highlight progress and opportunities will be provided for the University community to contribute to the strategy. There will be a wholesale review of the strategy every five years.

The priority areas are detailed in section 7.

6.1 Achieving net zero carbon and net biodiversity gain

We will tackle two major sources of carbon emissions from the University: the use of gas and electricity, and international air travel. We will achieve net zero carbon from gas and electricity usage through a combination of engagement to reduce energy consumption, recovering the savings from the carbon emissions reductions from departments, changing heat sources to eliminate emissions, improving building fabric and fittings to increase efficiencies, and carbon offsetting. Net zero carbon emissions from aviation will be achieved with a combination of engagement to reduce flights taken, sustainability charges on business flights and international student commuting flights, and carbon offsetting.

Our greatest impact on biodiversity is from our operations and supply chain. These impacts will be identified, avoided and reduced. We will achieve a net gain in biodiversity through avoidance and reduction of the negative impact of our operations and supply chain, biodiversity enhancements on and off the estate, biodiversity offsetting, and the achievement of a 20% net gain on all new developments.

Climate change and biodiversity loss are separate but interacting issues. They need to be tackled separately yet there are also benefits to addressing both in combination, in particular through natural climate solutions, such as restoring peatlands, which increase biodiversity while also capturing carbon. We will use these approaches wherever possible.

6.2 Enabling policies

Underpinning the strategy are these four 'enablers':

6.2.1 GOVERNANCE

We will embed environmental sustainability in the University's governance and decision-making. A new Environmental Sustainability Subcommittee will be set up to oversee implementation of the strategy, reporting to the Planning and Resource Allocation Committee (PRAC).

6.2.2 REPORTING

We will develop a system of annual reporting of carbon emissions and biodiversity impact within the first year, and this will be published in the Oxford Annual Review and the financial accounts.

6.2.3 FUNDING

We will establish the Oxford Sustainability Fund to manage the income and expenditure of implementing the strategy to reach net zero carbon and biodiversity net gain by 2035.

The fund will use existing sustainability funding but will also require new sources of income. The fund would levy a sustainability charge on flights and will recover cost savings in utilities from departments. Implementation of the strategy will bring energy, carbon and cost savings to departments after 2035. The fund's finances will be transparent, with its income and expenditure approved by the Environmental Sustainability Subcommittee and annual reporting published.

6.2.4 OFFSETTING

Carbon offsetting is a process whereby carbon or carbon-equivalent gases are removed from the atmosphere, or prevented from entering it, and stored securely, in order to compensate for emissions. A range of offsetting options are available to the University, with more being researched and developed.

Biodiversity offsetting involves undertaking conservation and restoration activities to enhance biodiversity, for the purpose of compensating for biodiversity impacts. In the University's case, these arise from its development, estate management, operations and supply chain.

We will concentrate on reducing our carbon emissions before starting to use carbon offsetting from 2030 onwards. It will not be possible to eliminate all our emissions, so we will need to rely on some level of carbon offsetting to balance the residual emissions and reach net zero carbon.

We will focus on avoiding and reducing our biodiversity impacts in preference to biodiversity offsetting. But again, it will not be possible to do this completely and we will need to carry out proactive conservation actions to achieve biodiversity net gain. We will use biodiversity offsetting from the outset but will aim to reduce our reliance on it over time as we reduce our impact.

We will develop a policy to guide our carbon and biodiversity offsetting activities and to assess new offsetting opportunities and technologies being developed.

6.3 Staff and students

Implementing this strategy will involve engagement and changing practice and culture across the entire University. As Oxford's most important asset, its staff and students will be the main drivers for change and improvement of our environmental sustainability performance. We hope to inspire staff and students to embrace change and to find new ways of living and working sustainably.

6.4 Colleges and partnerships

The Working Group has worked with college representatives in drafting this strategy. Although the colleges, as separate entities, are not bound by the strategy, we expect they will implement similar measures and targets. We already work with the vast majority of colleges in jointly purchasing all our energy. There are many areas of overlap – such as food, teaching, travel and estate management – where we will work in partnership with colleges towards a more sustainable Oxford.

The University values its relationships with Oxford City Council, Oxfordshire County Council and the surrounding district councils. We will work together to improve environmental sustainability in our city and county and achieve our goals. We will engage with our community of residents and civic organisations in Oxford and collaborate to reduce our environmental impact and improve our city.

7. Priorities

7.1 Research

INCREASE RESEARCH AND ENGAGEMENT IN ENVIRONMENTAL SUSTAINABILITY

Ground-breaking research and innovation are at the heart of our success in global university rankings. Oxford's researchers are improving our understanding of the reasons for global temperature increases, extreme weather and biodiversity loss.

From water to weather, fuel to food; from how we power our homes to how we protect and restore nature, Oxford's cross-disciplinary research is helping us to better understand the complexities of the interaction of human activities and the environment, and make a positive impact on our changing world.

Our researchers work with partners in industry, government, the third sector and other universities to address these challenges and to propose innovative approaches and solutions.

COMMITMENTS

7.1.1 Promote communication, coordination and collaboration between environmental sustainability researchers through the Oxford Network for the Environment (ONE) and other mechanisms.

7.1.2 Support interdisciplinary sustainability research teams in responding to major funding opportunities.

7.1.3 Seek to influence the priorities of research funders, including UK government and charities, to meet sustainability research challenges.

7.1.4 Fund research into negative emission solutions and net gain in biodiversity, in line with the aims of the strategy.

7.2 Curriculum

OFFER ALL STUDENTS THE OPPORTUNITY TO STUDY ENVIRONMENTAL SUSTAINABILITY, EITHER WITHIN OR OUTSIDE THE EXAMINED CURRICULUM

Oxford provides an exciting, challenging learning environment, training future generations of researchers, innovators and leaders in sustainability.

We will give our students the opportunity to develop their knowledge, skills and understanding and become the sustainability leaders of the future. The University curriculum reflects its wide expertise in the fields of climate change, biodiversity and sustainability. Sustainability-related opportunities for internships and training courses are offered to students. Active student societies are pioneering extra-curricular courses. These opportunities will be improved and extended to all students.

COMMITMENTS

7.2.1 Ensure courses with core and optional sustainability content are easily identifiable.

7.2.2 Encourage existing degree programmes to develop further environmental sustainability streams in the core curriculum where appropriate.

7.2.3 Consider and support new courses related to interdisciplinary environmental sustainability.

7.2.4 Extend existing opportunities for extra-curricular study of environmental sustainability to all students.

7.3 Carbon emissions from energy consumption on the University estate

REDUCE CARBON EMISSIONS RELATED TO OUR ENERGY CONSUMPTION TO A MINIMAL LEVEL.

The University records and reports its Scope 1, 2 and 3 carbon emissions in accordance with the Greenhouse Gas Protocol. Scope 1 emissions are direct emissions primarily from gas used for heating buildings; Scope 2 emissions are indirect, coming mainly from electricity used in buildings; and Scope 3 emissions include all other indirect emissions from the organisation's operations and supply chain, such as travel, procurement, waste, water and investments.

The University purchases 100% renewable electricity. However, its carbon emissions are measured according to the UK National Grid average carbon emissions in line with the Higher Education Statistics Authority methodology. This means it is not enough to purchase renewable electricity. We must go further, reducing electricity use and increasing on-site or locally generated power.

The University will reduce its reliance on natural gas, used mainly to heat buildings, by replacing gas heat sources with electric ones across the estate. The forecast reduction in carbon from the electricity grid makes electricity a lower carbon heat source than gas in the longer term. We will establish district heating networks at Old Road Campus and the Science Area. Heat pump technology will be used across the estate.

More efficient use of energy will be achieved by encouraging energy-saving behavioural change, retrofitting buildings to reduce heat loss and using energy-efficient appliances. We will help departments achieve carbon savings. Offsetting will be needed for residual emissions, but we will only start to use it from 2030 onwards.

COMMITMENTS

7.3.1 Roll out a large-scale engagement programme to encourage energy saving across departments.

7.3.2 Recover cost savings of gas and electricity from investments in low-carbon technology from departments to finance further carbon reduction measures.

7.3.3 Introduce a retrofit programme to maximise energy efficiency.

7.3.4 Install heat networks using new energy technology as an alternative to gas.

7.3.5 Explore the installation of large-scale photovoltaic and heat pump systems.

7.4 Biodiversity

IDENTIFY AND ADDRESS THE UNIVERSITY'S PRINCIPAL BIODIVERSITY IMPACTS FROM ITS OPERATIONS AND SUPPLY CHAIN AND ENHANCE BIODIVERSITY ON THE UNIVERSITY'S ESTATE

Biodiversity loss is caused by multiple interacting factors. Climate change is increasingly important among these, both directly (such as through increasing temperatures) and indirectly (such as through invasive species). However, addressing climate change alone will not solve biodiversity loss. For example, the Global Footprint Network estimates that the UK population's consumption currently overshoots the planet's capacity to provide about fourfold. This overconsumption has led, among many other things, to the halving of UK farmland bird populations and to loss in resilience and functioning of our soils, water bodies, pollinators and woodlands. Our decisions about food, information technology and building works in the University can be traced back directly to destruction of nature in South America, central Africa and south-east Asia.

The University harms biodiversity both directly and indirectly. Most of our direct impacts relate to the management and development of our estate. We can mitigate these through commitments to increasing biodiversity in our estate management and developments.

Yet the indirect damage of the University's operations and supply chain on biodiversity is much greater. This includes our sourcing, consumption and disposal of food, water and materials. We also have both positive and negative effects through activities such as advising policymakers, education, research and investments.

Our biodiversity impacts need to be accounted for, with negative impacts mitigated and positive impacts enhanced, so that we can demonstrate an overall gain in biodiversity from all our activities. The Oxford-developed framework known as the Mitigation and Conservation hierarchy will be used. We will prioritise these actions in the hierarchy across our estate and elsewhere:

1) Refrain – refrain from actions that damage biodiversity

2) Reduce – reduce the damage our remaining actions create

3) Restore – restore biodiversity that has been damaged

4) Renew – renew and enhance nature

We will achieve biodiversity net gain through avoidance and reduction of the negative impact of our operations and supply chain (Refrain and Reduce), biodiversity enhancements on and off the estate (Restore and Renew), and biodiversity offsetting (Renew). The best available metrics for biodiversity will be used.

Because biodiversity impact is caused across all priority areas, we focus in this section on biodiversity-specific commitments which are not covered elsewhere.

COMMITMENTS

7.4.1 Measure, report and compensate for the damage to biodiversity caused by the University's operations and supply chain.

7.4.2 Agree and implement a plan to enhance biodiversity on the University estate and beyond, taking the wellbeing of the University's staff and students, and wider community, into account.

7.4.3 Set a target of quantifiable biodiversity net gain of 20% for all development projects on University land, achieved and measured in accordance with industry-standard best practice.

7.4.4 Bring the University's biodiversity research and actions to the wider community, for example through engagement events at the University's museums and gardens, to stimulate interest in and concern for biodiversity and strengthen the links between biodiversity and wellbeing.

7.5 Sustainable food

REDUCE THE CARBON EMISSIONS AND BIODIVERSITY IMPACT OF OUR FOOD

How we produce and consume food affects biodiversity loss, deforestation, carbon emissions,[6] climate change, water scarcity and water pollution. Food production accounts for 25% of total global greenhouse emissions and is the leading cause of biodiversity loss[7]. Oxford research shows that the most effective way to reduce the climate impact of our diet is to consume less meat and dairy and eat more plant-based foods[8].

We have already acted to reduce the impact of catering at the University. Half the meals available at most University outlets are vegetarian or vegan. All outlets under the main University catering contract have Sustainable Restaurant Association certification. Environmental sustainability food labelling is being trialled to evaluate behavioural change linked to better awareness of the impact of food production on climate change and biodiversity.

COMMITMENTS

7.5.1 Report the biodiversity and carbon impact of our food on an annual basis.

7.5.2 Develop an action plan to reduce these impacts significantly by 2030.

7.5.3 Make all food at University catered events vegan or vegetarian by default, with meat and fish available on demand.

7.5.4 End the use of bottled water and ensure tap water is freely available to all staff, students and visitors.

7.5.5 Use an externally verified certification scheme to assess the sustainability credentials of the food offered at the University. This will encompass local and ethical sourcing, food waste, waste packaging and workers' rights.

7.6 Sustainable resource use

IDENTIFY AND REDUCE THE ENVIRONMENTAL IMPACTS OF OUR CONSUMPTION AND SUPPLY CHAIN

A University baseline review revealed that the biodiversity and climate impacts of our supply chain and consumption dwarf those from our buildings and energy use.

Some of the biggest areas of environmental harm from our supply chain are laboratory consumables, paper and information technology. Reducing the environmental impact of our consumption can be addressed by changing behaviour, reducing use and minimising waste. The University's annual recycling rate of 35% is significantly lower than Oxfordshire's rate of 58% for household waste.

Scrutinising our supply chain includes assessing suppliers for their water use, waste generation, sourcing of raw materials, energy efficiency, packaging and compliance.

COMMITMENTS

7.6.1 Avoid and reduce the biodiversity and climate impacts of our supply chain.

7.6.2 Set a target to increase the recycling rate, potentially using a building recycling league table.

7.6.3 Reduce paper use by departments including introducing on-demand printing across the University.

7.6.4 Limit the impact of information technology procurement and operations.

7.6.5 Avoid use of single-use products where possible.

7.7 International travel

REDUCE AVIATION EMISSIONS FROM UNIVERSITY STAFF AND INTERNATIONAL STUDENT TRAVEL AND OFFSET THE BALANCE OF EMISSIONS

Global air travel has almost doubled in ten years, from 2.2 billion passengers per year in 2008 to 4.2 billion in 2018. Aviation is one of the fastest-growing sources of greenhouse gas emissions. The UK has particularly high aviation carbon dioxide emissions per capita, accounting for 4% of global emissions from flights.

Flying is particularly damaging for the environment because emissions at high altitudes from burning jet fuel and from soot and water vapour have a greater environmental impact than emissions on the ground.

As a global university we attract students and staff from around the world and our academics travel for international conferences and meetings, as well as to conduct research. International flights are currently core to our business model. We need to reduce flights and to address emissions from aviation.

In 2018/19, staff flying on University business emitted an estimated 30,000 tonnes of carbon, and international students travelling to Oxford to study produced an estimated 21,000 tonnes more. These figures exclude emissions from visitors invited to collaborate or attend conferences in Oxford.

COMMITMENTS

7.7.1 Agree the extent of University staff and student flights to be calculated and report on these emissions annually.

7.7.2 Develop and implement a travel policy for air, rail and other travel which incorporates a Travel Hierarchy for all domestic and international travel for staff and students as follows:

- avoid travel
- reduce travel demand to and from the University
- travel without flying
- fly when there are no alternatives and offset these emissions through the Oxford Sustainability Fund.

[6]https://ourworldindata.org/food-ghg-emissions
[7]https://ipbes.net/sites/default/files/2020
[8]https://science.sciencemag.org/content/360/6392/987

7.7.2 Roll out a large-scale engagement programme to encourage use of the Travel Hierarchy across departments.

7.7.4 Reduce flights.

7.7.5 Levy a sustainability charge on business flights and international student commuting flights to contribute to the Oxford Sustainability Fund.

7.7.6 Offset emissions from all business and international student flights, starting from the 2034/35 financial year.

7.8 Local travel

LIMIT TRANSPORT EMISSIONS BY REDUCING THE NEED TO TRAVEL, ENCOURAGING WALKING, CYCLING AND USE OF PUBLIC TRANSPORT, AND MANAGING THE DEMAND TO TRAVEL BY CAR

Transport is responsible for more emissions than any other sector of the UK economy, accounting for 28% of all greenhouse gas emissions in the UK in 2018. Staff and student commuting, operational needs and freight deliveries all contribute to the University's carbon emissions. Transport is the main source of nitrogen dioxide in the city, accounting for 75% of emissions in Oxford. Vehicle movements also endanger vulnerable road users and create noise pollution and congestion.

Around 60% of staff live outside the Oxford ring road, often resulting in lengthy commutes. In 2018/19, 75% of staff and 97% of students travelled to work and study by sustainable modes. However, 11,200 tonnes of carbon was emitted from staff and student commuting.

The University supports staff and students with disabilities who need a parking permit. Any measures introduced to manage the demand to travel by car will not restrict access to parking for those with disabilities.

The University's vehicle fleet is now 11% electric. Freight and post have already been consolidated through the University internal mail service, which delivers more than 1 million items per year by bike and zero-emission electric vehicle. We will work on further freight consolidation at the University.

COMMITMENTS

7.8.1 Support and lobby Oxford City Council, Oxfordshire County Council and central government to implement proposals aimed at reducing congestion and improving air quality, by investing in walking, cycling and public transport infrastructure in Oxford.

7.8.2 Reduce the need for our staff to travel by supporting remote and flexible working.

7.8.3 Support more sustainable choices of public transport, walking and cycling.

7.8.4 Where possible, reduce commuter parking, prioritising parking for those with disabilities and caring responsibilities, in order to make better provision for cyclists and pedestrians.

7.8.5 Develop proposals and work with partners to improve public transport and walking and cycling connectivity between sites used by the University.

7.9 Investments

ENSURE THAT THE UNIVERSITY, AS AN INVESTOR, IS PART OF THE SOLUTION TO CLIMATE CHANGE AND BIODIVERSITY LOSS

The University has substantial investments, most of which are perpetuity, charitable endowment funds, managed by a specialised investment team, Oxford University Endowment Management (OUem). This is a wholly owned subsidiary of the University and manages over £4 billion of charitable money on behalf of the collegiate University. Investment policy is set by the University's Investment Committee and implemented by OUem.

OUem actively manages the Endowment Fund to be part of the solution to climate change and biodiversity loss. The Oxford Endowment Fund has recently placed restrictions on direct investment in fossil fuels. lnvestments are thoroughly analysed for potential environmental and social risks to prevent poorly managed negative environmental and social outcomes.

COMMITMENTS

7.9.1 Publicly disclose 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.

7.9.2 Implement the resolutions of Congregation on Fossil Fuel Divestments and Net Zero Investment[9].

7.9.3 Actively engage with fund managers using the Oxford Martin Principles for Climate-Conscious Investment.

7.9.4 Annually publish the Investment Committee's Socially Responsible Investment report.

7.9.5 Ensure a member with relevant expertise in investment management and climate-conscious investment is appointed to the Investment Committee.

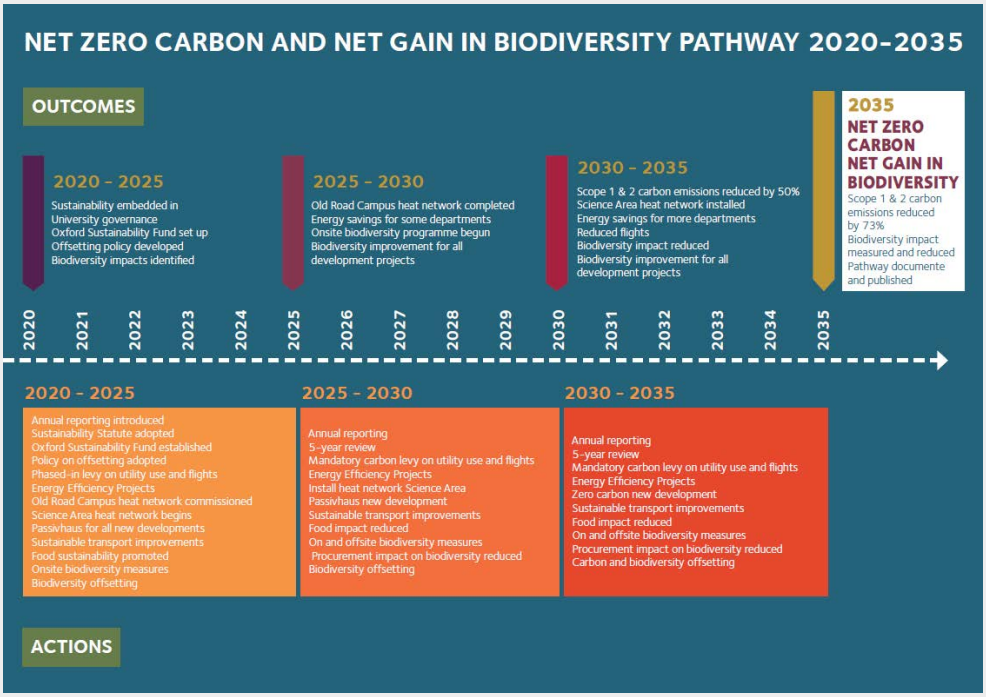
8. Closing, timeline and outline costs

We all face an unprecedented threat from multiple, intersecting environmental problems. These pose an existential threat to human society as we know it across the planet, and it is vital that every individual, company and institution does their part to address them.

This Environmental Sustainability Strategy provides a framework for the University of Oxford to do this. We are under no illusion that putting it into practice will be easy, but we believe that the principles set out above will put us on the road to becoming part of the solution to the environmental crisis.

The timeline below shows the major actions and outcomes of the strategy to 2035.

[9]https://gazette.web.ox.ac.uk/files/26march2020-no5272pdf



Outline capital and revenue costs of implementing the strategy

Project classification	**Detail**	**Costs 2019/20 – 2034/35 (£m)**
Capital costs		210
Estate infrastructure	Install Old Road Campus heat network: Install district heating network throughout the Old Road Campus to replace existing heat raising plant with central combined heat and power (CHP) plant. When scalable renewables become feasible (estimated *c*2030), replace CHP with these alternatives to remove fossil fuel heat sources.	25
Estate infrastructure	Install city centre heat network: Link existing heat networks in the Science Area. Increase utilisation of existing plant and supplement with heat pumps in the short term. When scalable renewables become feasible (estimated *c*2030), replace traditional boilers and CHP with these alternatives to remove fossil fuel heat sources.	40
Estate infrastructure	Upgrade other dispersed buildings to heat pumps: Where buildings are not near a district heat network, traditional boilers can be replaced with air or ground source heat pumps. This technology is currently best suited to small applications but is expected to become more scalable as it advances.	14
Departmental infrastructure	Electricity efficiency retrofit: Extensive opportunities exist to improve the efficiency of electrical plant and user behaviours across the estate. This element would be delivered through the existing Carbon Management Plan. To date, average simple payback on electrical efficiency projects is under three years.	8
Departmental infrastructure	Gas efficiency retrofit: Extensive opportunities exist to improve the thermal efficiency of buildings across the estate. This element would be delivered through the existing Carbon Management Plan. It is important to take a 'fabric first' approach to ensure that new heat sources are sized correctly.	8
External infrastructure	Sustainable Travel Fund (capital): The University invests in sustainable and active travel infrastructure to help staff and students get around the city without using private cars.	3.5
Maintenance	Maintenance costs: Any heat raising plant requires regular maintenance to ensure that it runs smoothly and efficiently. Buildings are mainly heated by independent gas boilers, providing hot water for heating and services. It is anticipated that replacing individual boilers with heat networks and CHP will reduce maintenance outlay. However, when this plant is replaced with electric equivalents, this maintenance cost is expected to increase.	111

Revenue costs		237
Travel	Sustainable Travel Fund (revenue): The fund provides support and engagement on reducing emissions from local and international travel.	3.5
Carbon offsetting	Offset purchasing: The University will purchase carbon offsets to mitigate any unavoidable emissions. At first this would be limited due to affordability, but in due course net zero would not be achievable without offsetting. Nature-based solutions and carbon capture and storage solutions would be used, depending on availability and cost.	6
Biodiversity offsetting	Biodiversity management: Improving the built and natural environment to encourage a rich and wide range of flora and fauna across the estate requires investment. This fund is targeted at improvements across the estate, as well as exploring interventions away from the estate to mitigate the University's supply chain impacts.	3
Utilities cost	Electricity and gas Total spend across the University	224
Total		**447**

Environmental Sustainability Strategy Working Group members

Dr David Prout	Pro-Vice-Chancellor, Planning and Resources (Chair)
Ms Harriet Waters	Environmental Sustainability (Secretary)
Professor Patrick Grant	Pro-Vice Chancellor, Research
Professor Anne Trefethen	Pro-Vice Chancellor, People and GLAM
Professor Martin Williams	Pro-Vice-Chancellor, Education
Professor Myles Allen	Mathematical, Physical and Life Sciences Division
Ms Kaya Axelsson	Oxford Student Union VP Charities and Community
Professor Nick Brown	Principal of Linacre
Ms Antonia Coad	Oxford University Endowment Management
Professor Tim Coulson	Mathematical, Physical and Life Sciences Division
Professor Sarah Darby	Social Sciences Division
Professor Daniel Grimley	Humanities Division
Ms Isobel Hughes	Estates Services
Professor Susan Jebb	Medical Sciences Division
Professor Malcolm McCulloch	Mathematical, Physical and Life Sciences Division
Professor E J Milner-Gulland	Mathematical, Physical and Life Sciences Division
Ms Joanne Murraybrown	Environmental Sustainability
Dr Stefanie Reiss	Environmental Sustainability
Professor Tim Schwanen	Social Sciences Division
Professor Nathalie Seddon	Mathematical, Physical and Life Sciences Division
Professor David Wallom	Mathematical, Physical and Life Sciences Division
Professor Kathy Willis	Principal of St Edmund Hall
Dr Chris Wymant	Medical Sciences Division
Mr Tom Yearley	Environmental Sustainability

Additional contributors:

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Professor Richard Barker	Saïd Business School
Mr Adam Bows	Environmental Sustainability
Professor Nick Eyre	Social Sciences Division
Mr Henry Grub	Mathematical, Physical and Life Sciences Division
Professor Jim Hall	Social Sciences Division
Professor Cameron Hepburn	Social Sciences Division

Oxford University Sustainability Strategy Glossary of Terms

Baseline	A date against which the University will measure its progress: 2009/10 for carbon emissions and 2018/19 for biodiversity
Biodiversity	The amount of, and variability in, living nature (genes, individuals, species, communities and ecosystems), including the functions and processes which nature provides
Biodiversity net gain	The University will account for the biodiversity impacts from development on its estate, management of its estate and its operations, and supply chain; avoid and reduce its impacts as much as possible; and use biodiversity offsetting to compensate for its residual impacts. Biodiversity will be overall demonstrably enhanced as a result of the University's ongoing activities across its whole portfolio by 2035. The University will use 2018/19 as its biodiversity baseline.
Biodiversity offsetting	Involves undertaking conservation and restoration activities to enhance biodiversity for the purpose of compensation for biodiversity losses and impacts that arise from the University's development, management of its estate and its operations, and supply chain.
Carbon emissions	The release into the atmosphere of carbon dioxide or carbon dioxide equivalents, a metric measure used to compare the emissions from various greenhouse gases on the basis of their global-warming potential (GWP), by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential
Carbon Management Fund	The existing fund that manages carbon reduction projects across the University
Carbon offsetting	A process whereby carbon or carbon equivalent gases are removed from or prevented from entering the atmosphere, and stored securely, for the purpose of compensating for University emissions of carbon or carbon-equivalent gases
Environmental Sustainability Strategy Working Group	A group of academics who have worked with the Environmental Sustainability team to draft this Environmental Sustainability Strategy
Net zero carbon	The University will account for carbon emissions associated with its Scope 1, 2 and 3 activities, reduce them as much as possible and then balance residual emissions through carbon offsetting to reach net zero carbon by 2035. The University will use its peak energy consumption of 2009/10 as its carbon baseline. Scope 1 emissions are direct emissions, primarily from gas used for heating buildings. Scope 2 emissions are indirect emissions from electricity generation for use in University buildings. Scope 3 emissions are all other indirect emissions from activities of the organisation, such as travel, procurement, waste, water and investments.
Oxford Sustainability Fund	A new fund to be established to finance the income and expenditure related to implementing the Environmental Sustainability Strategy
Scope 1 emissions	Direct emissions, primarily from gas used for heating University buildings
Scope 2 emissions	Indirect emissions from electricity generation for use in University buildings
Scope 3 emissions	All other indirect emissions from activities of the organisation, including emissions from travel, procurement, waste, water and investments