University of Glasgow

SUSTAINABILITY ANNUAL REPORT 2022-2023

WORLD CHANGING GLASGOW

Contents

INTRODUCTION

As a world-leading university with a strong commitment to sustainability, Glasgow recognises that it has a duty to lead by example. In 2014, the university became the first UK university to commit to fully disinvesting from fossil fuels. In 2017, it signed the Sustainable Development Goals Accord, committing to combatting climate change and environmental degradation. And in 2019, it became the first Scottish university to declare a climate emergency.

Since then, Glasgow has taken several steps to reduce its environmental impact. These include:

Developing a detailed and actionable Carbon Management Plan

Eliminating single-use plastics in its catering outlets

Opening the Centre for Sustainable Solutions, which brings together partners from industry, the third sector, and government to deliver innovative research on sustainability

Hosting the inaugural Global Sustainable Development Congress in 2022

These actions have been recognized by the Times Higher Education Impact Rankings, where Glasgow was ranked 13th in the world for the positive impact it has on society.

Glasgow is committed to continuing its work on sustainability and achieving its goal of carbon neutrality by 2030. The university believes that it has a responsibility to use its expertise and resources to help address the climate crisis and build a more sustainable future.

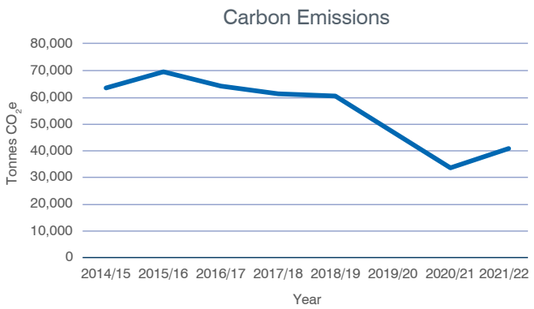
This report focuses on our business operations and the progress we are making towards environmental sustainability.

CARBON MANAGEMENT

Our Aim

The University has committed to setting a Greenhouse Gas (GHG) reduction target that aligns with the United Nation's Environment Programme Emissions Gap Report. This is currently an average of 7.6% reduction in GHG emissions per year until 2031 where the University aims to have reduced emissions to 27,000 tonnes CO_2e. The interim carbon reduction target laid out in our Carbon Management Plan is 47,000 tonnes CO_2e by 2025/26.

What we've achieved so far



In 2021-2022, UofG emissions totalled 40,803 tCO_2e, which is an increase from 2020/21. However, it reflects the return to in-person activity on campus following COVID-19 and the renewal of indirect value-chain emissions (Scope 3 emissions) from commuting travel and water use. Crucially, total emissions have fallen since the pre-COVID levels shown in 2018-19 and are meeting the interim carbon reduction target of 47,000 tonnes CO_2e.

Reducing carbon emissions

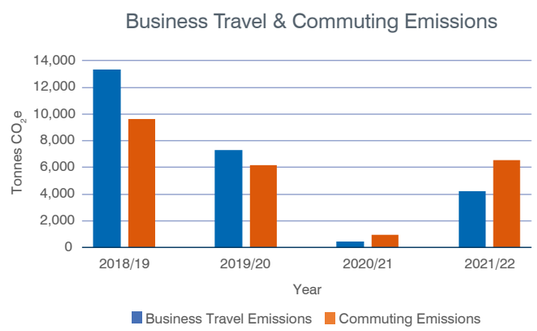
Our Glasgow Green strategy outlines the following actions which collectively will allow us to achieve a significant reduction in our carbon footprint:

1. Energy efficiency improvements involving heating, ventilation, air-conditioning (HVAC); lighting; insulation; and fabric improvements to specific buildings. These could reduce emissions by 4,200 tCO_2e over ten years.
2. Installation of a Water Source Heat Pump (WSHP) at the Garscube Campus in 2025. This is projected to displace 2,375 tCO_2e.
3. Installation of a WSHP at Gilmorehill in 2030 projected to displace 3,800 tCO_2e.
4. Deployment of an Air Source Heat Pump in suitable standalone buildings. An Air Source Heat Pump was installed in Florentine House in June 2023.
5. Introduction of solar panels in suitable locations, with all new builds on campus have PV planned at initial stages.

47,000t CO_2e by 2025/26

27,000t CO_2e by 2031

BUSINESS TRAVEL AND COMMUTING



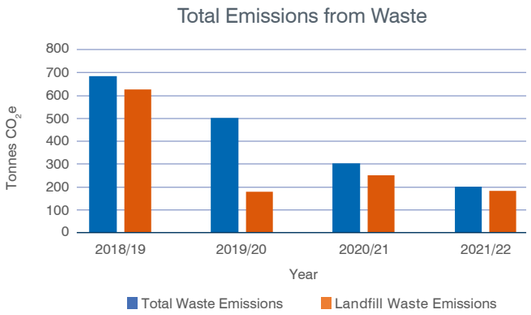
The University of Glasgow is committed to reducing its carbon footprint from commuting and business travel and making it easier for staff and students to travel sustainably. One of the challenges to increasing public transport use is the cost and quality of some services. Parking fees and the associated cost of driving are often cheaper than public transport fares. The University has already made some progress in this area. For example, it has made interest-free loans available to staff for annual season tickets and provides a discount for bus tickets. Additionally, the university has installed larger capacity bus shelters and other road improvements on University Avenue.

The return of in-person teaching and working to the University has precipitated an increase in business travel and commuting emissions. However, both business travel and commuting emissions are lower than the pre-COVID level in 2018/19. A key focus in years to come is to utilise new ways of working, and ensure we adhere to the Sustainable Business Travel Guidance, to minimise travel emissions to ensure steady improvement upon pre-COVID levels as set out on our Strategic Travel and Transport Action plan. We await the results of the next Travel Survey in 2024, to be able to analyse how working from home has bedded in.

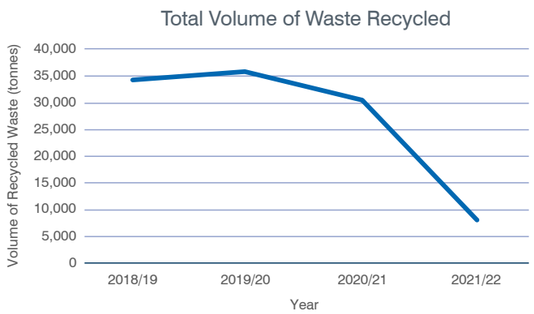
As part of the University's Travel Planning process, free OVO bike memberships are provided for all colleagues and students. This allows our community to access standard bikes at more than 100 hire stations across Glasgow, helping with sustainable travel to and from university campuses. Active travel isn't just a sustainable way to travel, there are many health-related benefits such as reduced risk of heart disease and Type 1 diabetes.

The University also encourages active travel by offering the Cycle to Work scheme allowing staff to obtain a bike for a discount, and various free incentives such as the Bike repair stations, storage lockers, training and routes, showers and bike parking. Since 2019/20 the total number of cycle spaces has increased by 77% and as of 2021/22 there were 1,754 spaces.

WASTE AND RECYCLING



In 2021-22 we produced 201 tonnes of CO_2e emissions associated with our waste, a 34% reduction from 2020-21. This represents a significant step towards realising our target carbon emission savings of approximately 300 tonnes CO_2e by 2030/31. We have managed to maintain a downward trend from 2020-21, where the amount of waste heavily decreased from previous years due to reduced footfall on campus. However, the amount of waste sent to landfill proportional to total waste has increased over the last year from 83% to 92%. This indicates that we are recycling a relatively lower volume waste than last year. It is important we continue to monitor waste production closely and push forward with recycling plans and initiatives to encourage behaviour change.



The total volume of waste we have recycled has also declined from previous years. However, this is due to a decrease in construction waste recycling by 22,600 tonnes after the completion of campus development projects such as the James McCune Smith building and the Advanced Research Centre.

The University has been working hard to change the way it collects, sorts, and recycles its waste. Last year our Waste Management Strategy and Action Plan 2022–27 was released, setting out our collective responsibility for the management of waste across all our campus locations, and to ensure that the waste hierarchy of 'reduce, reuse and recycle' is promoted and practised. It commits the University to continually improve the way it manages waste and will also help us to ensure that we achieve and maintain legal compliance.

- **Internal recycling and bin optimisation:** To increase recycling rates across campus, several steps have been taken in recent months. Under-desk bins have been removed as part of a rationalisation exercise, and new recycling bins have been introduced in a number of buildings at a cost of £86k. Further investment is committed for the coming year to ensure recycling bins are available across campuses, new ways of working are supported, and to help develop a recycling culture.
- **Deposit Return Scheme:** A pilot scheme was introduced, placing two trial machines on campus, one located on Level 3 of the Library, the other in the John McIntyre Building. The trial is challenging the throwaway culture and contributing to the fight against climate change. At the recycling machines students and colleagues can use the Recycle Glasgow app to scan the barcode on the plastic bottle and place in the smart bin. For every bottle deposited, the University has committed to planting a tree.
- **Glasgow Wood:** Waste wood from the University has been disposed of using Glasgow Wood, a local social enterprise which reuses and rehouses timber, preventing huge quantities of this valuable resource from being sent to landfill. As well as recycling benefits, Glasgow Wood improves the wellbeing of the community by providing valuable training and volunteer opportunities to locals as a solution for unemployment and social exclusion.

Chemical Waste

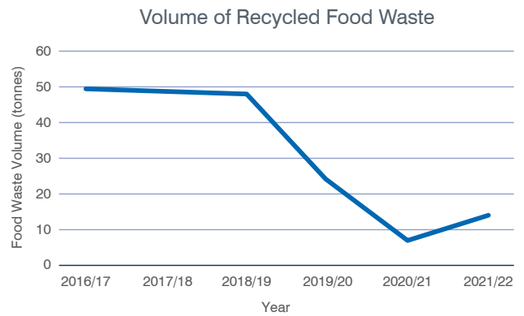
The University's Safety and Environmental Protection Service (SEPS) department provides guidance and training on occupational health and safety and environmental legislative compliance matters across the University. SEPS provide full instructions to staff and students on the proper disposal of chemical waste from laboratory operations to prevent harmful contamination of waterways and aquatic ecosystems from pesticides, biocides, and mercaptans, as well as other flammable, corrosive, poisonous and radioactive substances. Instructions outline how to properly identify, segregate, and contain chemical waste in accordance with the University's 'Zero to Drain Policy', where all chemical waste is disposed via the University's approved chemical waste contractor so far as is reasonably practical.

PLASTICS WASTE

The University has a single-use plastics free campus policy and has implemented several initiatives to fulfil this aim. This involves ensuring that all crockery and cutlery in our catering operations are recyclable and compostable. We also work to minimize single-use plastics in packaging and supply chains, working closely with TUCO and suppliers to achieve this. For example, Mossgiel Dairy deliver in recycled plastic containers which are washed and sent back to be reused again. We also have replaced paper plates and plastic platters for delivery functions with re-usable alternatives such as melamine plates and 'clip-closure' storage containers or compostable alternatives.

Our policy also intends to minimise the use of disposable items; for example, we have introduced a 20p levy attached to hot drinks served in a reusable cup to promote the purchase of reusable containers. Our catering team works closely with the GU Heritage gift shop to promote sales of Keep Cups, aiming to achieve a minimum of 3,200 sales per annum by the end of 2023. We also work hard to ensure disposable cups go into the correct waste stream after they leave the university.

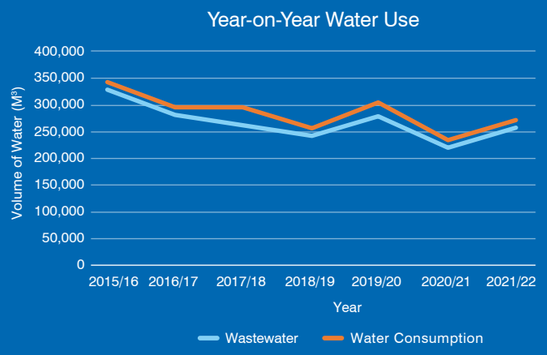
SUSTAINABLE FOOD



The volume of food waste that the University recycles has fallen over time. This means that the University is becoming more efficient in its food consumption. The increase from last year can be explained by the return of in-person working and teaching to campus. However, the decrease in food waste over the years does not capture the amount of food that is wasted but not split from general waste to landfill and mixed recycling. The University must therefore continue to manage food efficiently but also maintain efforts to 'close-the-loop' by doing our best to ensure food is placed into the correct waste streams. Our Catering team is leading on this by developing a waste audit procedure to identify any major waste issues; by improving chefs' knowledge of the amount of waste produced; and by providing support for the GUEST-led community fridge project.

WATER

Water consumption and production



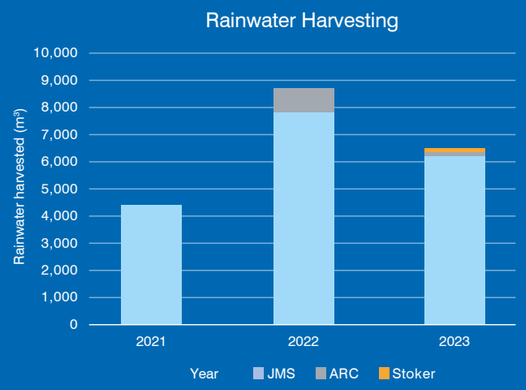
Our water consumption has declined overall from 343,969m³ in 2015/16 to 269,576m³ in 2021/22. This represents a 22% reduction. However, our water consumption has increased in the last year to above the pre-COVID level of 2018/19. This is largely due to the expansion of campus development and an increase in students.

The University is taking steps to reduce our levels of water consumption and wastewater. Our Design Standards Document specifies that we prioritise low water use appliances in our buildings' showers, WCs and taps. Our design teams also aim to prioritise the use of water saving technologies such as self-closing taps, check meters for new water tanks to detect leaks, non-refrigerated plumbed-in drinking water fountains, low flush toilets, and low flow rate hand wash taps and showers.

We have also promoted water consciousness through the installation of 50 free-to-use sustainable water fountains in buildings around campus to encourage the use of reusable water bottles. The fountains are sustainable because they are not chilled and are run on the domestic water supply. This means that they are not plugged into the electricity to chill the water or require deliveries of plastic water barrels. Furthermore, the fountains de-incentivise the purchase of single-use plastic bottles and cups by providing ample access to water on campus.

Water recycling and reuse

Additionally, our Design Teams prioritise water recycling through the implementation of rainwater harvesting systems for use in the flushing of buildings' toilets and urinals as well as for gardening and landscaping use. Rainwater harvesting systems are used in our James McCune Smith (JMS), Advanced Research Centre (ARC) and Sir Michael Stoker buildings. The rainwater harvesting system in the James McCune Smith building has harvested of 18,459,690L of rainwater since its installation in January 2021, which is greater than the capacity of 7 Olympic swimming pools.



Wastewater treatment

All the University's wastewater is treated by Scottish Water as is all wastewater across Scotland. The process to treat wastewater is as follows:

Stage 1: Removal of litter, wood and plastic.

Stage 2: Removal of stones and grit.

Stage 3: Removal of sludge for treatment until it is made harmless. It is then used to improve soil health for plant growth or for burning to generate electricity.

Stage 4: Cleaning of wastewater tanks by benign bacteria to remove harmful chemicals and waste.

Stage 5: The wastewater is stirred and allowed to rest before being poured back into rivers or the sea.

Treating our wastewater in this process prevents polluted water from entering our water system. It also protects our marine environment and aquatic ecosystems from harmful waste.

SUSTAINABLE PROCUREMENT

The University procures all goods and services with high ethical standards, focusing on social, economic and environmental considerations by applying principles of sustainable procurement. This follows the Public Contract (Scotland) 2015 regulations, the Procurement Reform Act 2014, and the Procurement (Scotland) Regulation 2016.

The University of Glasgow Procurement Office has implemented the Advanced Procurement of University and Colleges (APUC) Supply Chain Code of Conduct. This focuses on the organisations and its Suppliers responsibilities in social, ethical, economic and environmental areas across the Supply Chain. The University Procurement Strategy is committed to delivering our Sustainability Objectives, which include identifying modern slavery risks within our Supply Chain.

The University's Procurement Office has received various accreditations including being the first higher education institution globally to receive the Chartered Institute of Procurement and Supply (CIPS) Sustainable Procurement Review GOLD Award.

ETHICAL INVESTMENT

The University of Glasgow is committed to socially responsible investment. As part of this commitment, the University has put in place a policy on Socially Responsible Investment.

Since coming into force, the policy has been reviewed annually to ensure it continues to be applicable to the University's annual accounts, and presently has remained unchanged. Ethical Investment reports too are produced and published annually.

The University's investments are monitored by the Investment Advisory Committee (IAC), a sub-committee of the Finance Committee. The student body is represented on the Finance Committee by the President of the SRC, and provisions within the policy allow for student and staff representation with respect to investments via student bodies, trade unions or IAC structure.

In October 2014, the University of Glasgow became the first university in the UK to commit to fully disinvesting from fossil fuel industry companies.

Full divestment will mean the reallocation of around £18 million of current investments by 2024. This is subject to review of the financial impacts, as well as the interim commitment to reduce fossil fuel investments to less than 6.4% of total endowment investments by 2019, which the University has achieved.

BIODIVERSITY

The University of Glasgow has committed to an ongoing responsibility to protect and enhance biodiversity throughout our campuses and local communities. We improve the biodiversity capabilities of our estate by continuing to annually review our Biodiversity Strategy and Action Plan (2022-2027).

Throughout our campuses, staff from the Estates Directorate and the Biodiversity Working Group work together to help support the sustainable use of natural habitats. We continue to recognise the importance of trees in the townscapes of university buildings and the imperative to protect and support biodiversity in university forested areas. Our campuses at Garscube, Dumfries and Cochno Farm cover vast sways of woodlands and historic parklands, offering conservation and protection to natural specimens. The University is keen to further promote this, ensuring sustainable planting is observed by providing guidelines for specific species to cultivate in a variety of local ecosystems. Along University Gardens, Oakfield Avenue and the Principal's Lodgings, native plant species to support biodiversity have been re-cultivated, with a variety of shrubs including rose bushes and wildflower gardens to support natural habitats in urban environments. In Autumn 2023, work began on the planting of roughly 14 hectares of native broadleaves at the University's Cochno Farm.

The University's Grounds and Gardens team also prioritise the removal of invasive and alien plant species. They use an external contractor to spray and remove Japanese Knotweed and Giant Hogweed, as well as the biannual spray of Impatiens Balsamina at the Garscube campus.

Surrounded by a rich variety of aquatic and terrestrial habitats, the University's Scottish Centre for Ecology and the Natural Environment (SCENE) field station gives researchers unique opportunities for studying and the conservation of a broad range of species and ecological communities. With Loch Lomond on one side and the Dubh Loch on the other side, plus mountains and moorlands with broadleaf and coniferous ancient oak woodlands is part of the rare temperate rainforest ecosystem with a wealth of biodiversity set in protected University land.

The Eurasian hedgehog is on the International Union for Conservation of Nature (IUCN) Red List for British Mammals, as such it is imperative that we protect these and all endangered species team of dedicated staff and students have signed up to the UK nation-wide Hedgehog Friendly Campus Campaign, striving to make the University sites accessible and welcoming environments to the Eurasian Hedgehogs. The University achieved a silver-accreditation for our Hedgehog Friendly Campaign measures in 2021/22.

The University also provided six-week summer internships to four undergraduate students to carry out Phase 1 habitat surveys of Gilmorehill, Garscube and Cochno Farm.

The University's Estates team also works closely with the SSPCA, RSPB and the Glasgow Peregrine Project to ensure the protection of the peregrine falcons who nest annually in the University's Gilbert Scott tower. We are grateful to report three peregrine fledglings hatched in our historic tower this year. In recent weeks we have witnessed the "parents" educating their young in aerobatics. These classes included the characteristic +200 mph dive amongst high-speed turns and barrel rolls. One eager fledgling fell form the nest in 2022 and another this year however, the established relationships with the SSPCA and RSPB assisted our Estates team to safely return the fledglings on both occasions. The Estates team is currently considering options to sympathetically upgrade the existing bird box and CCTV facilities to futureproof the peregrines and monitor their growth.

OUR STUDENTS' COMMITMENT TO SUSTAINABILITY

Glasgow University Environmental Sustainability Team (GUEST) is a student-led team within the Estates Directorate providing project-based work placement opportunities to students in areas such as biodiversity, sustainable food, sustainable travel, communications, and student/community engagement. These projects not only play a vital role in the ongoing promotion of sustainability on campus, but also provide an opportunity for students to develop both professionally and personally, while contributing to the everyday functioning of the University. GUEST also offers the opportunity for interns to work on its projects on a voluntary basis. GUEST were once again heavily involved with promoting partnerships for sustainability across global audiences delivering a number of important sessions for students and staff.

The GUEST *Walk2COP27* initiative centred around accelerating climate action in the run-up to COP27 in November 2022. The aim was to engage mass participation across global borders, informing and educating through the establishment of partnerships for sustainability. The virtual event followed a journey from Glasgow – the hosts of COP26 – to Sharm El-Sheikh – the hosts of COP27. The journey virtually travelled through 12 countries with townhall meetings held in cities along the way to show the differing ways climate change is affecting them and the solutions being implemented to for action.

The GUEST team continue to provide regular activities alongside global outreach campaigns. Some of the highlights include:

- **The Bike Hub** is a fully equipped, student-run pop-up workshop. Every week, students and staff could bring their bike to be fixed by a mechanic, gain practical mechanical experience so they can fix their own bikes, and receive advice about bike maintenance and care.
- The team host regular a **Climate Café,** open to anyone who wishes to join, engaging on discussion and debate surrounding climate initiatives and potential solutions including ideas for working together with university staff to implement climate forward policies.
- The GUEST biodiversity branch has once again worked with fellow students and the Biodiversity Working Group to **maintain and cultivate gardens** across the campuses ensuring there is a wide range of flora and fauna on campus.
- In 2022, the GUEST team was nominated for two **Green Grown Awards** that recognise the circularity of student living styles and the establishment of a borrowing-hub for second-hand formal wear. GUEST have also been successful in working with the Student Experience committee in securing funds to develop an Eco-Hub space on campus which will be delivered from the spring of 2024.

WHAT'S NEXT

Through our commitment to the UN SDGs and delivery of Glasgow Green, we will continue with our world-class research, sector leading collaborations, and action to operate more sustainably. As individuals, we all have a responsibility and opportunity to shape our future. The way we behave and the choices we make have an impact on the planet and on others. Let this be the year you start to make changes and encourage others to get on board.

Design by Cactus
University of Glasgow charity number SC004401