

# SUSTAINABILITY UPDATE



Net  
Zero BY  
2030

Our environmental sustainability  
progress and future plans.

LONDON  
SCHOOL of  
HYGIENE  
& TROPICAL  
MEDICINE





# Leading Global Health to Carbon Neutrality. Help us Reach Net Zero.



## Foreword from the Director

The health and wellbeing of people across the world continues to be at risk, hence LSHTM's work to improve health worldwide has never been more critical and urgent. Equally important is the way we deliver on this important mission. Climate change presents a challenge and an opportunity for LSHTM to adapt our activities to a less-carbon intensive sustainable model while continuing to deliver quality teaching and research. This is why LSHTM launched its Energy and Carbon Management Plan in February 2020 with the aim of achieving net zero carbon emissions by 2030.

This report provides an update on progress made to date, and crucially includes steps which must be taken in order to realise our carbon reduction targets. A big part of our progress relies on changes to individual behaviour and reimagining how we work – this is supported by systemic changes, including changes to some policies and procedures. Embedding environmental sustainability as

part of our culture at LSHTM is a core strategy for achieving our goals. Big thanks to many at LSHTM who are already putting in a lot of time and effort to support this work and helping to create a low carbon sustainable LSHTM. Every effort counts. Therefore, support from the entire LSHTM community will be essential in deploying a whole-of-institution response to the climate crisis. –



**Professor Liam Smeeth**  
Director, LSHTM

## COP 26 and Beyond

With the climate crisis deepening, the importance of global action on climate change becomes ever more urgent. The 26th United Nations Climate Change Conference (COP26) hosted by the UK in November 2021 in Glasgow is a critical opportunity for governments from around the world to agree to global policy action to reduce humanity's environmental impacts on the planet. The COVID-19 pandemic and associated travel and other restrictions will make this a particularly challenging conference. A team of researchers from the LSHTM Centre on Climate Change & Planetary Health will be present at the conference (both

in person and at virtual events) to make the case for far greater recognition of the enormous effects of climate change on human health, especially in low and middle income countries, and the benefits that could accrue for health from rapid and widespread carbon emission reductions. –



**Professor Alan Dangour,**  
Director, Centre on Climate Change and Planetary Health

# Energy and Carbon Management Plan



Over 70% of LSHTM's emission are from Scope 3 emissions – particularly from business travel emissions and procurement

LSHTM developed a new ECMP which was endorsed by the Executive Team and launched in February 2020 by Prof Piot. The ECMP commits LSHTM to achieve net zero emissions by 2030 across all our Greenhouse Gas (GHG) emissions sources – i.e. Scope 1, 2 and 3 emissions.

**Scope 1 and 2 emissions - are emissions related to gas and electricity use.**

**Scope 3 emissions - are emissions related to travel, procurement, catering, construction, waste and water emissions.**

#### **ECMP Implementation Structures:**

The Sustainability Action Committee (SAC) is set up to assume responsibility for the implementation of the actions from the ECMP. This committee is chaired by the LSHTM COO and

reports to the Executive Team. The SAC committee is composed of heads of the relevant departments, academics and students. The different areas of impact are split into subgroups led by respective committee members. The SAC committee meets four times a year.



# World Leading Research and Education. Achieved Sustainably.

Breakdown of carbon reduction actions  
Actions on Scope 3 emissions



## New Travel Policy

[read the policy](#)

- Use the emissions calculator to calculate your emissions before traveling
- Increase awareness and share regular travel emissions data
- Use of video conferencing capabilities as alternatives
- Use of lower carbon modes of travel (i.e. rail instead of flying)

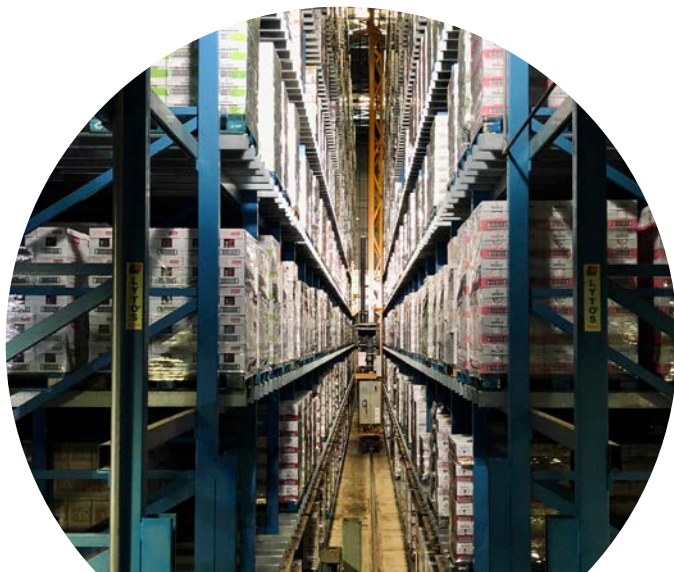
Supply chain management –new tender process for high value categories:

- IT Hardware
- Laboratory equipment and consumables
- Logistics Services



Supply chain management – compliance & good practice:

- Sustainability requirements included in tender contract evaluation
- Use of existing suppliers (stop adding new suppliers)
- Use of Purchase Orders made mandatory



## Reducing Water Use

- Water saving measures adopted, including installation of efficiency taps across all the buildings



## Waste Management

- Observe waste policy and code of practice across the estate
- Reduce waste and recycle more

## Sustainable Catering

- Adopt more meatless Planetary Picks
- Reduce food miles
- Eliminate disposables
- Reduce waste
- Achieve the 'green kitchen standards'



## Sustainable Labs

- Adopt LEAF (the Laboratory Efficiency Assessment Framework)



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Breakdown of carbon reduction actions  
Actions on Scope 1 & 2 emissions

£1.2M Salix energy Efficiency Grant award for:

- Replacement of new ultralow temp freezers
- Production of a Heat Decarbonisation Plan
- Tavistock Place Solar Thermal
- Increased capacity electrical substation
- Keppel Street new window glazing

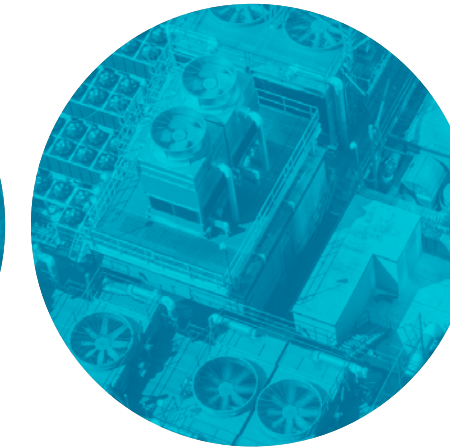


## Estates Masterplan

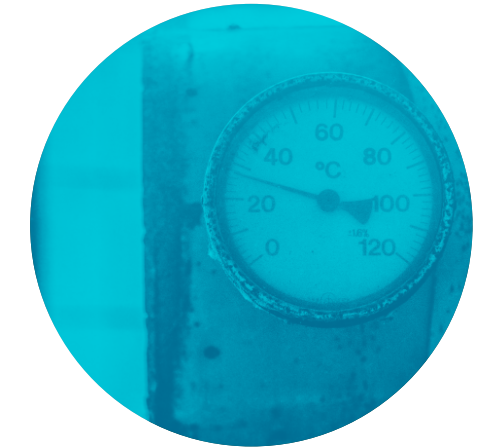
Sustainable construction & refurbishment



Standard set to BREEAM excellent or SKA Gold/Silver



New heating and cooling system



Space temperature policies

### 2021 to 2029 Highlights & Timeline of Masterplan Energy Efficiency Elements

June 2022 to Nov 2022  
new freezer room

June 2025 to Mar 2026  
Tavistock Place 1 refurbishment

Dec 2028 to Nov 2029  
New boiler house for heating & hot water

July 2021 to Mar 2022  
window glazing

May 2023 to Dec 2023  
new heating & cooling system

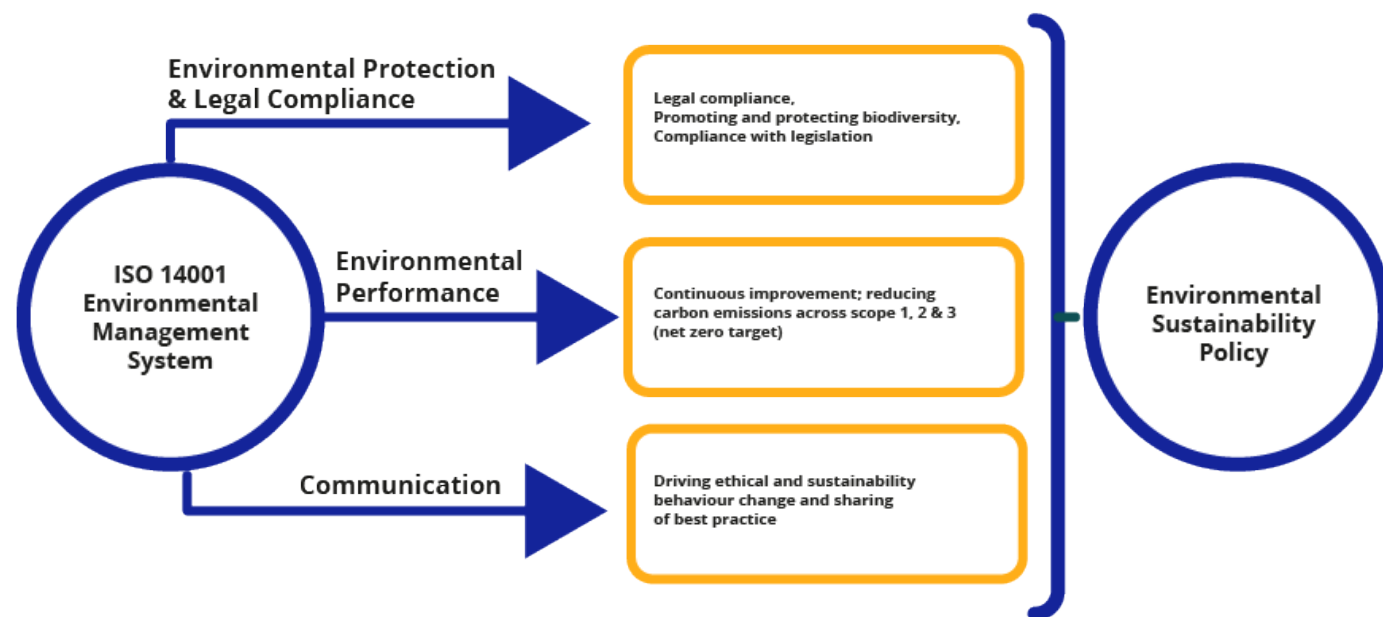
Feb 2027 to Feb 2028  
library ventilation & infrastructure upgrade



# Leading Global Health to Carbon Neutrality. Help us Reach Net Zero.

ISO 14001 Environmental Management System (EMS)  
LSHTM achieved certification to ISO 14001 EMS in 2016 in collaboration with the Bloomsbury colleges partners, Birkbeck and SOAS. A core principle of ISO 14001 is an organisation committed to continuous environmental improvement, in the area of environmental protection

and compliance, reducing environmental impacts improving performance, and communication and awareness raising. The commitment of top management to the course of continuous environmental improvements is a key requirement for ISO 14001. Recertification audits are carried out every 3 years with interim audits conducted annually.



This certification underpins LSHTM's sustainability efforts and strategies. Of this LSHTM's overarching sustainability strategy is the implementation of the Energy and Carbon Management Plan (ECMP).



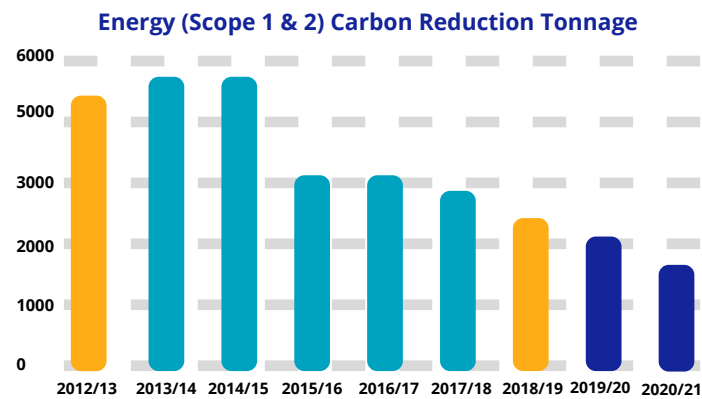
## Catering. Done Sustainably.

- Compostable takeaway containers
- No more plastic straws or plastic cups
- Reusable coffee cups (KeepCups)
- Reducing food waste
- We are a Fairtrade University – promote the sale of Fairtrade products as much as possible at LSHTM
- New Planetary Pick meals – offers vegetarian and vegan options with menu aligned to EAT-Lancet Commission (planetary health diet recommendations)



# Advancing Global Health. Sustainably.

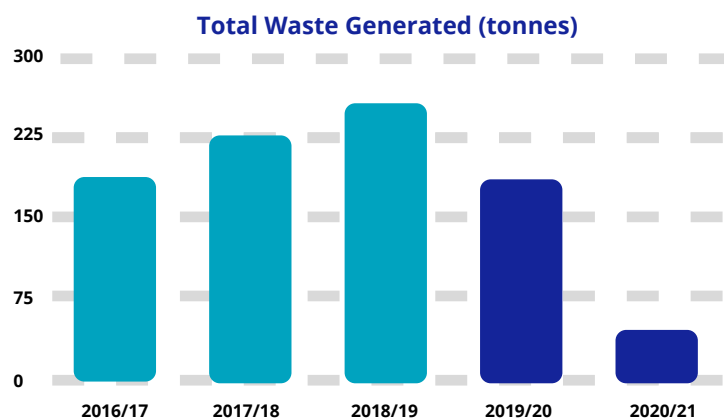
How have we done so far?



## Energy and Carbon

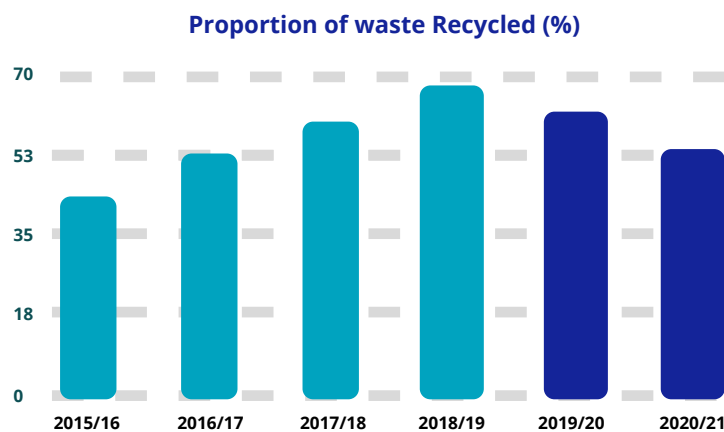
LSHTM had a previous carbon target of 25% reduction by 2020 and was able to achieve 42% reduction by 2018/19. However, this was very limited to just Scope 1 and 2 emissions (i.e. heat, gas and electricity), without the scope 3 elements.

Note - 2019/20 and 2020/21 emission reductions are heavily skewed by the Covid shutdown. LSHTM has seen 43% reduction in energy consumption over the 'Covid years'.



## Waste and Recycling

The total waste produced across LSHTM was on the increase during the 3 years pre-Covid and significant effort is needed to adopt waste minimisation strategies with all staff and students participating to help reduce the amount of waste generated. This graph shows the 3 years increase as well as the decrease over the 'Covid years'.



On the other hand the proportion of LSHTM waste being recycled was increasing pre-Covid. The dip in recycling rates are seen during the 'Covid years'. The importance of recycling must be reiterated to the LSHTM community as normal operations resume.



## Strategic Alignments and Partnerships

Some entities, centres and departments are important to LSHTM's ambition to achieve its net zero emissions by 2030. These include:

**Sustainable Climate Impact Fund (SCIF)** – this is a subsidiary of LSHTM and is a pioneering and progressive social enterprise focused on improving the health and socio-economic wellbeing of communities and their local environment in low- and middle-income countries.

**Centre on Climate Change and Planetary Health** – this centre based at LSHTM is committed to generating evidence-based solutions for planetary health to

create a resilient and sustainable planet that fosters good health for all. The centre's work covers food systems, planetary health monitoring, air pollution and heat and infectious diseases.

**Subject leaders and researchers** In the field of environment, health and sustainability are also important partners in LSHTM's sustainability efforts.



# Laboratory work. Achieved Sustainably.



## Sustainable Labs Award

**LSHTM was the proud winner of the Laboratory Improvement category at the annual S-Lab Awards in 2019. Some of the sustainable lab initiatives include:**

- Setting up a reuse swap shop where staff can share leftover laboratory items
- Creating the Laboratory Sustainability Group
- Organising a 2-for-1 efficient freezer exchange initiative

Numerous actions have helped reduce waste, increase energy efficiency and develop networks.

- Introducing a formal sustainability induction for new laboratory staff
- Installing a new freezer room
- Ensuring sustainability is integrated into new laboratory refurbishments
- Continuing to engage the Laboratory Sustainability group in new projects and initiatives
- Taking part in LEAF (Laboratory Efficiency Assessment Framework)

## LSHTM's MRC Units in The Gambia and Uganda

**LSHTM has two Medical Research Council (MRC) university units in Africa – one in Uganda and the other in The Gambia.**

**Below are some of the environmental improvements implemented at each of the Units.**

### MRC / UVRI & LSHTM Uganda Research Unit

The Unit installed 472kWp power Solar PV across its three main sites. This significantly offsets the power demand from diesel generators and grid electricity by up to 80%.

60% of the hot water requirements at the Guest houses in the Kyamulibwa and Entebbe sites are supplied by Solar thermal heating which reduces the burden on electricity.

The water used in the Kyamulibwa site is from a borehole which is a more suitable supply due to the remote location of the site.

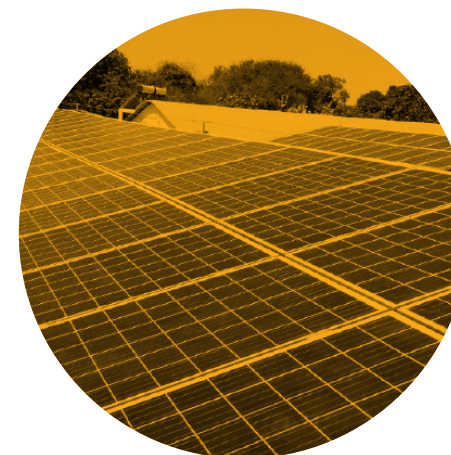
Rain water harvesting is carried out and the water is used in bathrooms and for washing vehicles for the sites of Kyamulibwa and Masaka.

### MRC Unit The Gambia at LSHTM

The Unit has installed solar power capacity of 593KWp across its sites in Fajara, Keneba and Walikunda. In addition, solar street lamps are expected to be installed further increasing the renewable energy output.

The new Molecular Lab is being built with insulated walls and appropriate openings to maximize ventilation and lighting efficiencies.

The Unit is currently looking into adapting a smart biowaste management plant to handle all medical waste to support clinical trials.







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## Tavistock Place 2

LSHTM has a new-build in progress called 'Tavistock Place 2' (TP2) which is being built to BREEAM Excellent environmental standard – this will be our newest and most efficient building. TP2 will be completed and occupied by 2023. 8 & 9 Bedford Square are energy inefficient, therefore options are being reviewed as part of our Estate Masterplan.

**The scenario presented in the table below demonstrates how our estate is becoming more energy efficient – here we would be gaining 3 times the space yet producing 20% less carbon emissions.**

Year 'In & out'	Building	Size (m2)	Annual CO2 emissions (kgCO2e)
Out by 2024	8 & 9 Bedford Square	1,074	30,773
In by 2023	Tavistock Place 2 (TP2)	3,661	24,706
	TP2 – 3 times the space compared to 8&9 Bedford		TP2 – 20% less emission than 8&9 Bedford

## Look out for the new Net Zero campaign and help us reach Net Zero by 2030.

This is an institution-wide campaign, so why not start having conversations at your departmental meetings on the sustainability changes you can make within your team.

If you would like to find out how you can track our progress, please contact  
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[lshtm.ac.uk/sustainability](http://lshtm.ac.uk/sustainability)