

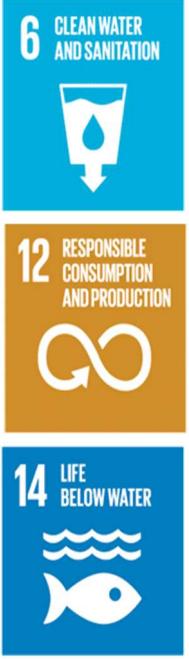


QMUL Environmental Sustainability: Key Performance Indicators

Aspects	Immediate Objectives and longer-term ambition	Resources Required & KPIs
<p>1. Managing Carbon</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>7 AFFORDABLE AND CLEAN ENERGY</p> </div> <div style="text-align: center;">  <p>13 CLIMATE ACTION</p> </div> </div>	<p>Context:</p> <p>Our carbon footprint (tCO₂e) is represented by the emissions associated with the energy and water used across our UK campuses, fuel used by our vehicles and business travel. In 2018/19, we emitted 25,942 tCO₂e. A breakdown of our 2018/19 carbon footprint show that our business travel (31.9 Million km) accounted for 38.2% of our carbon footprint, with the remaining 61.8% from the energy and water usage used across our UK campuses.</p> <p>Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> Adopt a six-year 30% carbon reduction target against our 2018/19 baseline Climate change risks will be included in our risk registers. We will continue to invest in initiatives that reduce our carbon footprint. We will actively encourage all staff, students, visitors and major partners to reduce their carbon footprint. We will share, promote and showcase research and innovation to help tackle the growing challenges and risks posed by climate change. <p>Long-term Ambition:</p>	<p>Resources Required:</p> <ul style="list-style-type: none"> Overall, around £8 Million investment required over six-years to invest on energy and water efficiency as well as sustainable travel. <p>KPIs:</p> <ul style="list-style-type: none"> Annual percentage reduction in tCO₂e emitted by QMUL Annual percentage reduction in Carbon tCO₂e per total number of students Annual percentage reduction in Scope 1: tCO₂e Annual percentage reduction in Scope 2: tCO₂e Annual percentage reduction in Scope 3: tCO₂e

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	<ul style="list-style-type: none"> To achieve net-zero carbon by 2050 at the latest and sooner if we can. We will develop a net-zero carbon reduction target on or before July 2025. 	
<p>2. Building Energy Efficiency</p>   <p>The energy used across our UK campuses accounts for 61.8% of our 2018/19 carbon footprint. Only 33% of our 55 qualifying buildings currently achieve Display Energy Certificate (DEC) scores of C and above, which implies that there are opportunities to improve the energy performances of our buildings. Error! Reference source not found. details some of the energy efficiency projects and initiatives that were recently completed and commissioned across our campuses. These projects were projected to reduce our electricity and gas use by 6,907,417 kWh and 1,710,999 kWh, respectively.</p> <p>Our Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> We have secured a £2.46 million Salix energy efficiency loan to reduce the energy used at our Mile End and Whitechapel campuses (see Error! Reference source not found.) We signed a four-year building management system (BMS) contract of £1.5 million for the purpose of improving energy efficiency across our UK campuses. We will actively identify and implement initiatives to help improve our DEC scores. We will continue to promote good energy practices across all our campuses To reduce the energy used across our UK campuses by 30% by July 2025 against our 2018/19 baseline, which is likely to require further investment of the order of £3.6m. 	<p>Resources Required:</p> <ul style="list-style-type: none"> Circa of £7.6 Million required to implement energy efficiency measures across our UK campuses Additional building efficiency budget line to be included in all major refurbishment and new-builds projects Additional building improvement budget line to be included in annual estates maintenance capital funds <p>KPIs:</p> <ul style="list-style-type: none"> Annual percentage reduction in kWh of electricity used Annual percentage reduction in kWh of gas used Annual percentage reduction in kWh / Litres of heating oil used Annual percentage improvement in DEC scores Annual percentage increase in renewable energy generated 	

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	<p>Long-term Ambition:</p> <ul style="list-style-type: none"> To ensure that all our procured electricity is on green tariff. 	<ul style="list-style-type: none"> Annual proportion of green electricity tariff used
<p>3. Travel and Transportation</p> <p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE </p> <p>11 SUSTAINABLE CITIES AND COMMUNITIES </p> <p>13 CLIMATE ACTION </p>	<p>Context:</p> <p>We are a university with global reach, and over 160 nationalities on campus. We recognise the impact that the travel of students and staff has on the environment. Our 2018/19 business travel of 31.93 Million km and the 2,385 litres of fuel we used in our own vehicles account for 9,919 tCO₂e of our 2018/19 carbon footprint (38.4%). Long-haul flights made up at least 87% of our business travel footprint.</p> <p>Our Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> Apply the lessons learned from remote working in lockdown to encourage people to focus more on essential travel only, and to keep air travel to a minimum. Continue to promote and share evidence of the good practice of sustainable transport (cycling, walking and public transport) as well as the public health and environmental impacts of transport emissions. Error! Reference source not found. has been developed as part of our commitment to capture in-depth data of our business. These data will be used to identify our top fliers and implement incentives/approaches to reduce our business travel. Actively engage with individuals, departments and research groups whose research, training, consultancy and other associated activities entails long-haul international flights Implement a “no vehicle idling” policy across all our UK campuses. 	<p>Resources Required:</p> <ul style="list-style-type: none"> Investment in remote conferencing and communication technologies to support the delivery of our six-year, 30% carbon reduction target <p>KPIs:</p> <ul style="list-style-type: none"> Annual percentage reduction in litres of fuel used in QMUL's vehicles Annual percentage reduction (km / miles) of Domestic flights Annual percentage reduction (km / miles) of Short-haul flights Annual percentage reduction (km / miles) of Long-haul flights Annual percentage reduction (km / miles) of International flights Annual percentage reduction (km / miles) of non-flight travel Annual proportion of bicycle storage per students and staff

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	<ul style="list-style-type: none"> Develop proposals to incentivise use of “greener” vehicles on campus (e.g. installation of EV charging points, possible parking levy). Subject to available funds, increase the infrastructure and facilities across our campuses that support cycling and sustainable travel. Progressively reduce our business travel in line with our six-year carbon reduction target. 	
<p>4. Water Management and Efficiency</p> 	<p>Context:</p> <p>We used 339,181 m³ of water across our UK campuses during the 2018/19 academic year. This volume of water contributed 117 tCO₂e (0.4%) of our 2018/19 carbon footprint. To put our water usage into context, we used an average of 17.6 m³ of water per student.</p> <p>Our Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> Invest around £200,000 on relevant water efficiency measures across our UK campuses to reduce the water we use by 30% by July 2025 against our 2018/19 baseline. Continue to promote the benefits of water efficiency to all staff and students. Integrate water efficiency into all our new-builds and refurbishment projects. <p>Our Long-term Ambition:</p> <ul style="list-style-type: none"> Explore integrating rain/grey water harvesting into all new-builds and refurbishment projects. Progressively reduce the volume of water we use per total number of staff and students. 	<p>Resources Required:</p> <ul style="list-style-type: none"> Investment of circa of £50,000 per annum on water efficiency between the 2020/21 and 2024/25 academic years Dedicated a budget line into all new-builds and major refurbishment projects to support water efficiency <p>KPIs:</p> <ul style="list-style-type: none"> Annual percentage reduction in water used (m³) Annual percentage reduction in water used per total students and staff

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<p>5. Recycling and Waste Management</p> 	<p>Context:</p> <p>We generated 1,588 tonnes of general wastes waste across our three main campuses during the 2018/19 academic year, costing us a total of £242,538. Recyclable materials represented 33% of the total general wastes collected across our main campuses.</p> <p>We have some very good examples of waste reduction: we use the Too-Good-to-go app to reduce food waste from our catering outlets; the Students Union have set up the ReUse scheme to ensure items used by departing students are donated for reuse by incoming students, and have organised leftover food donations to the Hackney Winter Shelter. There is currently a collaboration between QMSU and the Roman Road Trust to explore and reduce use of single-use plastics on Roman Road.</p> <p>Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> • We will continue to ensure that so far as possible general waste generated from our main UK campuses is not disposed on landfill • We will continue to implement measures to increase the proportion of recyclable materials collected from our main UK campuses. • We will continue to promote the economic and environmental benefits of minimising waste and appropriately segregating recyclable materials from general waste across all our campuses. 	<p>Resources Required:</p> <ul style="list-style-type: none"> • Fill the current vacant position of the Waste Manager <p>KPIs:</p> <ul style="list-style-type: none"> • Annual percentage of general waste disposed on landfill • Annual percentage increase in recyclable materials collected across our main campuses • Annual percentage reduction in food waste • Annual kg of materials donated (ReUse events) • Annual total number of used books donated

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	<p>Long-term Ambition:</p> <ul style="list-style-type: none"> • We will reduce the total annual operational waste produced by the university and ensure that no general waste is disposed of on landfill. • We will recycle at least 50% of the general waste generated from our main UK campuses by 2030. 	
<p>6. Construction: Refurbishment and New-builds</p>  	<p>Context:</p> <p>The materials and processes associated with construction and refurbishment projects have the potential to adversely impact on our local environment. However, embedding good environmental practices into construction, new build and refurbishment projects could positively contribute to the delivery of good environmental outcomes.</p> <p>Our Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> • We aim to achieve 'Excellent' and 'Very Good' ratings from the Building Research Establishment Environmental Assessment Method (BREEAM) for all our major new builds and refurbishment projects respectively. • We will monitor the contribution of all prospective refurbishment projects towards our target of achieving 30% carbon reduction over six years. • Improve the DEC scores of our existing buildings during refurbishment <p>Our Long-term Ambition:</p> <ul style="list-style-type: none"> • We aim to integrate innovative building energy efficiency technologies into all our new builds and refurbishment projects. 	<p>Resources Required:</p> <ul style="list-style-type: none"> • Dedicated additional budget line to ensure that all our new builds and refurbishment projects support energy efficiency commitment <p>KPIs:</p> <ul style="list-style-type: none"> • Annual proportion of major refurbishment projects that attain BREEAM Very Good • Annual proportion of major new-builds that attain BREEAM Excellent

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<p>7. Sustainable Procurement</p>  <p>10 REDUCED INEQUALITIES </p> <p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE </p> <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION </p>	<p>Context:</p> <p>The goods and services we procure have varying level of impacts on the environment. Therefore, integrating environmental and corporate social responsibility (CSR) specifications into relevant aspects of our procurement and commissioning processes will influence our supply chain, suppliers, and contractors to reduce the environmental impacts of their operations.</p> <p>Our Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> • We will develop our sustainable procurement guide. This guide will be used to embed the principles of sustainable development and CSR into all relevant aspects of our procurement processes. • We will include relevant environmental sustainability and CSR specifications in our procurement and commissioning processes. <p>Our Long-term Ambition:</p> <ul style="list-style-type: none"> • We aim to have environmental sustainability and CSR specifications performance indicators in all the service level agreements (SLAs) we have with our major contractors. 	<p>Resources Required:</p> <ul style="list-style-type: none"> • See resources required for environmental management (Aspect: 12) <p>KPIs:</p> <ul style="list-style-type: none"> • Proportion of major current suppliers / contractors with certified EMS • Percentage of major contracts that sustainability have been included as one of the SLAs • Proportion of major contracts in which environmental specifications were included • Proportion of major contracts in which CSR specifications were included

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<p>8. Sustainable food and catering</p>  <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION ∞</p> <p>3 GOOD HEALTH AND WELL-BEING heartbeat line with heart</p> <p>2 ZERO HUNGER steaming bowl</p>	<p>Context:</p> <p>Embedding good environmental practices into the way we source, prepare and process food has the potential to enhance our environmental performance and reduce the environment impacts of the food we serve across our campuses. Further benefits associated with sustainable food and catering are waste minimisation and water and energy reduction.</p> <p>Our Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> • We will continue to implement initiatives that reduces food waste from our catering outlets. • We will continue to ensure that all our major catering and food suppliers have a certified EMS. • We will continue to exclude fish species classified as “at risk” by the Marine Conservation Society and only accept fish from sustainable sources. • We will continue to use food and services from responsible and ethical sources • We will continue to increase the proportion of meals rich in fruit, vegetables, pulses, and nuts, while reducing foods of animal origin, because livestock farming is one of the significant contributors to climate change <p>Our Long-term Ambition:</p> <ul style="list-style-type: none"> • We aim to significantly increase our sustainable food and menu offerings. • We aim to significantly reduce the energy used to process food across our catering outlets. 	<p>Resources Required:</p> <ul style="list-style-type: none"> • Dedicated budget to attain and maintain fair trade certification <p>KPIs:</p> <ul style="list-style-type: none"> • Proportion of catering outlets that offer vegetarian and vegan meal options • Proportion of catering outlets, which offer access to free water • Annual percentage reduction in food wastes • Compliance with relevant ethical food and catering standards • Proportion of major suppliers with certified EMS

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<p>9. Biodiversity and ecological enhancement</p>  	<p>Context:</p> <p>Biodiversity maintains a functional and beautiful environment as well as resource for food, shelter, clothing and other materials. Our economy relies on biodiversity since it provides renewable economic resources and ecosystem services, medical and scientific benefits, and is priceless in term of cultural and aesthetic values. In response to the fact that over 58% of global species that have been lost and approximately 30% of UK species becoming extinct since 1970, we actively promote the benefits of biodiversity conservation and enhancement.</p> <p>We have a medicinal and sensory garden at our Mile End campus, as well as 19 allotments tended by staff and students. Students also contribute significantly through volunteering to sustainability activities e.g. canal clean-up, and local wildflower and bulb planting.</p> <p>Our Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> • We will continue to engage with and support the London Borough of Tower Hamlets commitment to enhance biodiversity across the Borough (see the Tower Hamlets Local Biodiversity Action Plan 2019-24) alongside local partners. • Over the next five-years, we will aim to increase the number of native species such as Black Poplars across our Mile End Campus • We will continue to improve the biodiversity of the Regent's Canal. • We will continue to support the Regent's Canal clean-up events coordinated by the Students Union. 	<p>Resources Required:</p> <ul style="list-style-type: none"> • Dedicated budget line into all major refurbishment and new build projects to support biodiversity enhancement • See resources required for environmental management (Aspect: 12) <p>KPIs:</p> <ul style="list-style-type: none"> • Proportion of major new build projects in which biodiversity enhancement / conservation have been integrated into the project design and implementation. • Upkeep and continuous access to the medicinal and sensory gardens. • Designated allotment (for educational purposes) to our Nursery. • Annual number of clean-up events of the Regent Canal.

Aspects	Immediate Objectives and longer-term ambition	Resources Required & KPIs
	<p>Our Long-term Ambition:</p> <ul style="list-style-type: none"> • We will continue to promote the benefits of biodiversity, ecological conservation and enhancement and look for opportunities/projects across all our campuses, working with students, staff and our local communities. • We will continue to share research outputs on biodiversity and ecological enhancement. 	
<p>10. Embedding good environmental practices</p>	<p>Context:</p> <p>We are committed to embedding good environmental practices and the principles of sustainable development into all aspects of our operations.</p> <p>Various aspects of environmental sustainability, sustainable development, public health and the environment, environmental law, environmental engineering and corporate social responsibility are offered across our three faculties (Humanities and Social Sciences, Science and Engineering, and Medicine and Dentistry).</p> <p>We are also currently a Corporate Member of the Institute of Environmental Management and Assessment (IEMA). Our membership of IEMA is part of our commitment to partner with like-minded organisation engaged in making their operations much more sustainable. We are also using our current membership to embed good environmental practices across our operations and improve our resilience.</p>	<p>Resources Required:</p> <ul style="list-style-type: none"> • Funds to maintain IEMA corporate membership • Funds to maintain EcoCampus membership • See resources required for environmental management (Aspect: 12) <p>KPIs:</p> <ul style="list-style-type: none"> • Annual number/value of on-going research projects in the area of environmental sustainability • Annual number of research outputs in the area of environmental sustainability • Annual number of environmental engagement and awareness events • Annual number of coordinated national / international environmental campaigns

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	<p>One of the actions that we have implemented to support the delivery of the above objective, is that we are currently delivering a certified CPD course on environmental sustainability skills for the workforce to all interested staff.</p> <p>Our involvement in the Laboratory Efficiency Assessment Framework (LEAF) is one of our responses to reducing the environmental risks associated with laboratory activities across our campuses. We are currently using the LEAF tool to improve the environmental performances of our laboratories as well as assist users to appropriately explore opportunities to reduce the environmental impacts of laboratory activities.</p> <p>Our participation in the EcoCampus programme is currently being used to offer all our students the opportunity to access an online course designed to provide insight into sustainable development and how they can embed the principles of good environmental practices into all activities that they are involved in. This course is one of our initiatives to embed sustainable development into our academic activities and to raise awareness of the benefits of good environmental practices.</p> <p>Our Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> We will continue to include an overview of the principles and application of good environmental management practices into our staff welcome events. These sessions will be used to encourage all new colleagues to join our environmental sustainability journey (see Error! Reference source not found.). 	<ul style="list-style-type: none"> Greater recognition and promotion of our excellent environmental research on our website. Proportion of courses / schools that environmental sustainability has been integrated into the curriculum. Annual number of students that have completed and passed the certified CPD sustainable development course Annual number of staff that completed the CPD certified course on environmental sustainability skills for the workforce

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	<ul style="list-style-type: none"> • We will continue to recruit and support environmental sustainability champions across all operational areas. • We will continue to promote the benefits of environmental sustainability and climate change responses across all relevant media, such as via our website and events. • We will work with careers to deliver content on sustainable and environmentally-focused jobs and careers. • We will promote more actively our research and academic activities in the areas of environmental sustainability and UN SDGs. <p>Our Long-term Ambition:</p> <ul style="list-style-type: none"> • We aim to ensure that sustainability is a key feature of working and studying at Queen Mary, integrated into the curriculum (through the forthcoming Curriculum Review), our academic activities and our ways of working. • We aim to integrate the principles of sustainable development into all aspects of our operations. 	

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<p>11. Civic University, and UN SDGs</p> 	<p>Context:</p> <p>We are a socially responsible university. Our ethos and values underpin the way we engage with all relevant stakeholders and partners, and our role in our local communities. We are proud to have been a London Living Wage employer since 2006, and a founding partner of the Living Wage Foundation.</p> <p>We have a dedicated Centre for Public Engagement, which helps to facilitate staff and students engage with the public in important conversations about our education and research, including sustainability. We have an Athena Swan Silver Award in recognition of our commitment to advancing women's careers in Science and Medicine. We are a founding partner in the Civic University Network, and will be developing our civic university agreement with our local area over the next year.</p> <p>Our Immediate Objectives / Actions:</p> <p>The principles of CSR will continue to be embedded into all aspects of our operations and we will continue to use the Sustainability Leadership Scorecard to monitor our performance against the UN SDGs.</p> <p>Our Long-term Ambition:</p> <ul style="list-style-type: none"> • We aim to promote the benefits of CSR and UN SDGs to all our relevant partners and stakeholders. • We will share our research outputs in the areas of CSR and UN SDGs. 	<p>Resources Required:</p> <ul style="list-style-type: none"> • Maintain our membership of the Alliance for Sustainability Leadership in Education (EAUC) <p>KPIs:</p> <ul style="list-style-type: none"> • Monitor our performance against the UN SDGs • Benchmark our performance based on the EAUC's sustainability leadership scorecard

Aspects	Immediate Objectives and longer-term ambition	Resources Required & KPIs
<p>12. Environmental Management</p>  <ul style="list-style-type: none"> 13 CLIMATE ACTION  9 INDUSTRY, INNOVATION AND INFRASTRUCTURE  11 SUSTAINABLE CITIES AND COMMUNITIES  12 RESPONSIBLE CONSUMPTION AND PRODUCTION  	<p>Context:</p> <p>We are aware of the benefits of monitoring, managing, and reporting all significant areas in which we interact with the environment will be an integral aspect of our environmental sustainability strategy. As part of our environmental priorities, we will continue to improve our environmental performance and comply with all relevant environmental regulations.</p> <p>Our Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> • We will, over the next two years, attain ISO 14001:2015 EMS certification so that we have a structured approach to manage our environmental performance. • We will use our environmental auditing programme to provide assurance of our environmental compliance and monitor our environmental performance. • We will continue to periodically review and check that our environmental management system is fit for purpose. • We will periodically review our environmental objectives and targets. <p>Our Long-term Ambition:</p> <ul style="list-style-type: none"> • We aim to maintain ISO 14001:2015 EMS certification. • We aim to continue to improve our environmental performance and exceed regulatory compliance requirements where appropriate. 	<p>Resources Required:</p> <ul style="list-style-type: none"> • Maintain our membership of the EcoCampus programme • Fill the current two vacant positions within the Sustainability Team by July 2021 <p>KPIs:</p> <ul style="list-style-type: none"> • Up to date environmental risk register • Up to date environmental legal register • Up to date environmental impact and aspect registers • Number of completed environmental audit with zero non-compliance • Published annual environmental performance reports and Annual sustainability report

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13. Ethical investment and fossil fuel divestment 	<p>Context:</p> <p>Queen Mary agreed and published an Ethical Investment Policy in December 2017 stating that we will not directly invest in companies whose business activity in armaments exceeds 25%, or companies which derive over 33% of its turnover from fossil fuel industries. We also do not invest in the tobacco industry. Our financial advisers have been instructed accordingly.</p>	<p>Resources Required:</p> <ul style="list-style-type: none"> • None <p>KPIs:</p> <ul style="list-style-type: none"> • Annual update from the Finance and Investment Committee on our investments • Compliance with our ethical investment policy.