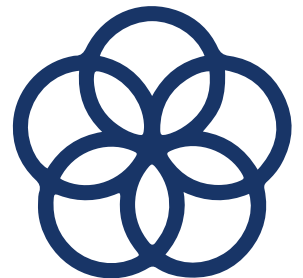
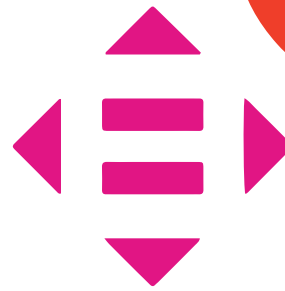
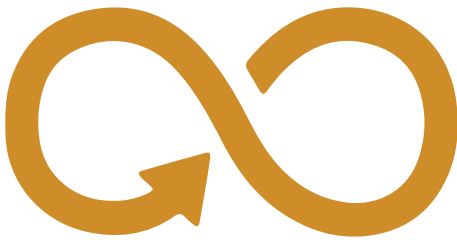
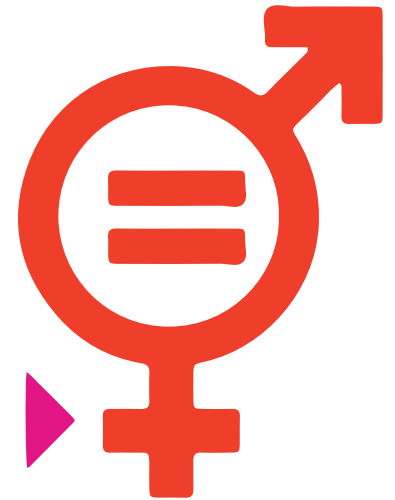
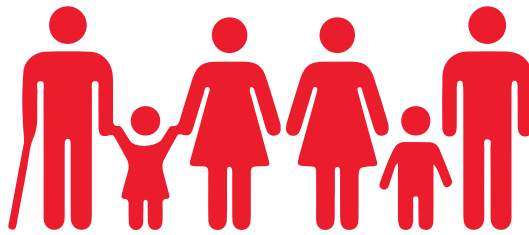
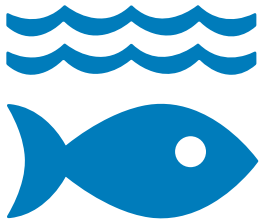




CITY
UNIVERSITY OF LONDON
— EST 1894 —

Academic excellence for
business and the professions



Global Goals

Report 2020



Building a better future for all

The 17 United Nations Global Goals for Sustainable Development were established to create a better world, end poverty, fight inequality and take action on climate change. Behind the Goals sit a number of targets to guide governments, businesses and society to work together to build a better, sustainable future for all.

The importance of global engagement was recognised during the development of City's *Vision & Strategy 2026* (V&S26), with the explicit aspiration for City to become "a leading global university that contributes to the global good of society". As educators, we recognise that we can play an integral role in attaining the Global Goals by 2030.

This report illustrates how, through local and global engagement, City is aligning its activities to the UN's Global Goals for Sustainable Development. The report addresses each of the 17 Goals, featuring case studies that reflect the breadth of work undertaken by our colleagues and students. Selected by a cross-institutional group, the case studies illustrate innovative activities and positive impacts taking place across City's schools, research centres and Professional Service departments.

City's commitment to creating a culture that promotes diversity and equality of opportunity is reflected in the variety of case studies from individuals and groups included in the report. Reflecting the wide range of activities undertaken at City, the case studies are presented across five themes:

Research conducted by individuals, groups and centres, across disciplines and with an emphasis on impact

Education including innovative undergraduate and postgraduate programmes, continuing professional development and education with an international focus and reach

Engagement with students, colleagues and communities, both locally and internationally, on issues relating to the Goals

Campus infrastructure and operational activities that impact on the Goals

Governance covering City policies, frameworks and systems that support our work towards the Goals.

This report represents the first stage of a larger interactive project to engage colleagues and students in a wider discussion about global sustainability and the role of universities. We recognise that, due to our particular institutional focus, we have a greater impact on some goals than others and this is reflected in the content of the report.

In the coming year we will build on the strengths we have identified and increase our positive impact. Our cross-institutional Sustainability Committee will be responsible for monitoring progress and reporting our performance annually.

Widening the scope of sustainability at City

Having previously published annual sustainability reports that largely focused on our operational response, this document is the first to evidence our commitment to Education and Research for Sustainable Development, highlighting the ways in which this work contributes to the achievement of the Global Goals.

The report builds on City's successful submission to the 2020 Times Higher Education University Impact Rankings, in which City ranked third in London, 21st in the UK and in the top 200 globally. The Rankings measured our performance against only four of the Global Goals and this report showcases a wider range of activities across City that address the challenges contained in each of the Goals.

The case studies in this report provide a snapshot of our performance during the 2019/20 academic year. We will continue to monitor progress against the Goals, while continuing our operational focus through the development of our Climate Change Adaptation Plan, which will ensure we deliver our commitment to achieving net zero CO₂ emissions by 2040.

I hope this report will help communicate the essential message of sustainability and demonstrate to our students, colleagues and wider stakeholders City's deep commitment and contribution to supporting the delivery of the Global Goals.



A stylized, handwritten signature in black ink, belonging to Professor Sir Paul Curran.

Professor Sir Paul Curran
President

The Global Goals for Sustainable Development

The United Nations and its member states have agreed the ambitious target of 2030 to achieve the 17 Global Goals for Sustainable Development. The interconnected nature of the 17 Goals is integral to the success of this approach. No individual goal can be achieved in isolation and to attempt to do so would forego significant opportunities to advance in other areas.

The case studies included in this report showcase City's contributions under the 17 goal framework. In some instances this may not reflect the true influence of a case study. On these occasions additional icons are used to highlight where an initiative furthers progress relating to more than one goal.

The global community must work together on all 17 Global Goals to provide healthy societies, economies and environments for all.





Goal 1: No Poverty

End poverty in all its forms everywhere

Research

The business of poverty reduction – is microfinance doing more harm than good?

Target 1.4: Equal rights to ownership, basic services, technology and economic resources

Microfinance aims to alleviate poverty by providing the poor with a route into entrepreneurship, however the realities of these interventions can be more complex. An award-winning paper, co-authored by Professor Bobby Banerjee – Professor of Management at the Business School (formerly Cass) and Dr Laurel Jackson – offers a critical analysis of the role such market-based approaches to poverty reduction play in developing countries.

Researchers at City: Professor Bobby Banerjee

Buttressing supply chains against floods in Asia for humanitarian relief and economic recovery

Target 1.5: Build resilience to environmental, economic and social disasters

Flood is the most frequently occurring natural disaster worldwide, with Asia suffering the highest incidence. A report co-authored by Professor ManMohan S Sodhi – Professor of Operations and Supply Chain Management at the Business School (formerly Cass) and Professor Christopher Tang – suggests that there is a new opportunity to coordinate humanitarian efforts in the event of a flood, using micro-retailers.

Researchers at City: Professor ManMohan S Sodhi

Assessing the impact of sustainability programmes in local communities in Côte d'Ivoire

Target 1.5: Build resilience to environmental, economic and social disasters

Dr Sebastien Mena – formerly at the Business School (formerly Cass) – has studied a range of sustainability programmes addressing social, environmental and economic issues (such as access to water, healthcare and education) in local Ivorian communities. The project has revealed how these programmes can be better implemented, and how they will eventually improve the wellbeing and welfare of the communities they serve.

Researchers at City: Dr Sebastien Mena

also supports
Global Goal 10



Education

Poverty – What counts?

Target 1.1: Eradicate extreme poverty

This module, offered by the Department of Sociology, introduces students to the main conceptual debates on definitions of poverty in the UK. Students learn why the measurement of poverty is important to policy makers and academics, and the ways in which measures of poverty are used. It explores different approaches and considers how changing measurement methods changes who is considered 'poor'. The module provides students with the skills to define and measure poverty from a range of perspectives, using several different large-scale household surveys.

Development Economics

Target 1.4: Equal rights to ownership, basic services, technology and economic resources

The Department of Economics educates students about poverty by offering modules addressing this issue directly. Third-year BSc students can choose the module Development Economics, which offers an overview of how to measure poverty, its roots and challenges to policy makers. In our main master's courses, students are encouraged to question the existence and source of poverty traps and their policy implications. Students can also take up a module on the Economics of Microfinance, which specialises in this field of application.

also supports
Global Goal 8



Engagement

Student Union campaign – period poverty

Target 1.B: Create pro-poor and gender-sensitive policy frameworks

This Students' Union campaign aims to address the gender and financial imbalance as a result of the purchase of sanitary products. The campaign highlights the financial impact on over half of the students at City who, it is estimated, spend more than £128 a year on sanitary products alongside student fees, accommodation prices and transport costs.

The campaign tackles this problem by:

1. Lobbying for City to provide free/tax free sanitary items to students
2. Providing sanitary items at cost price through the Students' Union Reception and Shop
3. Supporting the charity 'Bloody Good Period' by organising donations of pads and tampons at least twice a year
4. Raising awareness of sustainable sanitary product options to students.

also supports
Global Goal 5



On campus

Fairtrade University – 10th Anniversary

Target 1.4: Equal rights to ownership, basic services, technology and economic resources

Fairtrade is an international organisation working to empower disadvantaged producers in developing countries by tackling injustice in conventional trade and ensuring a fair wage and treatment for growers and workers.

City has been a Fairtrade University for 10 years. During this time we have increased the number of Fairtrade products available on campus, undertaken numerous campaigns and worked with students to deliver Fairtrade projects across City and in the local community.

The Fairtrade University and College Award Programme has been recently updated in partnership with the National Union of Students (NUS) to ensure more scope for continual improvement and recognition of wider ethical sourcing efforts within institutions. City has joined the second cohort of the new two-year programme, working throughout this year to ensure successful accreditation in May 2021.

also supports
Global Goal 8



City has been a certified Fairtrade University for 10 years



Goal 2: Zero Hunger

End hunger, achieve food security and improved nutrition and promote sustainable agriculture

The Centre for Food Policy

The Centre for Food Policy is an interdisciplinary centre dedicated to improving food policy worldwide. It is dedicated to generating and sharing insights that shine a light on how food policy can do better to tackle food issues and its implications for nutrition, health, sustainability, livelihoods, society, culture and economy.

Research

Target 2.2: End all forms of malnutrition

- Connecting sustainability and health in South African food systems

The Sustainable and Healthy Food Systems (SHEFS) project, led by Dr Laura Pereira working within an international team, involves collaboration with policy makers in South Africa to translate the findings of science into policy interventions that could have significant impact in guiding the South African food system onto a more sustainable, healthy and equitable trajectory.

- Rethinking UK Food Governance

As research fellow for the Centre's Rethinking UK Food Governance project, Dr Kelly Parsons spent 2019 mapping current food policies. She identified the inherent disconnects that exist between them and interviewed people working on food policy inside government and in business, civil society and academic stakeholders. Her work generated insights into what governance is needed for a more integrated and inclusive approach to food policy across government in the UK.

- Sustainable diets as an integration point in food policy

Professor Tim Lang's research has made a significant difference to the mainstreaming of the 'sustainable diets' concept for use in new or innovative policy discourse and action and in reaching diverse non-academic audiences. Examples of the impact of his research include the international EAT-Lancet report *Food in the Anthropocene* and his contributions to public understanding about food system sustainability such as at the UK's Climate Assembly or his 2020 book addressing the future of the UK's food security.

Researchers at City: Professor Tim Lang, Dr Kelly Parsons, Dr Laura Pereira

Education

MSc Food Policy

Target 2.4: End all forms of malnutrition

The MSc in Food Policy is about analysing, researching and informing the future of food policy on a local and global scale. The ways in which we produce, process, distribute, market, prepare and consume food have important consequences for our health and that of the planet. The course examines the positive and negative impacts of food from health, environmental, political, socio-economic and cultural perspectives.

Continuing Professional Development courses

Target 2.4: End all forms of malnutrition

In 2019, The Centre expanded its educational offer to include Continuing Professional Development training courses that aim to shift mindsets and build skills to enable decision makers and influencers to put this approach into practice.

also supports
Global Goal 4



Attendees at a SHEFS workshop focussing on coastal wild foods in the Western Cape, South Africa



Providing environmentally and socially responsible catering through the Food Made Good scheme

Engagement

SU-Eatable Life

Target 2.1: Universal access to safe and nutritious food

City is one of two UK university canteens and two workplace restaurants at the centre of a major European project to shift people towards diets that are healthier for them and the planet.

SU-Eatable Life, funded by the European Commission's LIFE fund, is a long-term, in-depth experiment to change the eating habits of thousands of students and employees, using a combination of creative menu design, rewards, data collection and social media.

Chefs at City developed meals designed to meet the Sustainable Restaurant Association (SRA's) One Planet Plate specifications and, through a combination of techniques, students and staff were educated and encouraged to choose these options. Due to coronavirus, the research has been paused, but we look forward to working further with the SRA and their partners (Barilla Centre for Food and Nutrition, Wageningen University and tech provider greenApes) to digest the results when we are back on campus.

also supports
Global Goal 3 

On campus

Food Made Good certification

Target 2.1: Universal access to safe and nutritious food

The Sustainable Restaurant Association (SRA) works to accelerate change towards an environmentally restorative and socially progressive hospitality sector in the UK. As members, City has participated in the SRA's Food Made Good assessment, rating our performance across 10 criteria under three headings: society, sourcing and environment.

also supports
Global Goal 3 



Goal 3: Good Health and Wellbeing

Ensure healthy lives and promote wellbeing for all at all ages



A meeting of the IMAgINE partners

Research

Implementing midwifery units – a Global INnovation and Evaluation programme (IMaGINE)

Target 3.1: Reduce maternal mortality

This ongoing research and development programme tests whether the introduction of midwifery units (MUs) can improve the birth environment and experience of care for women and midwives in low- and middle-income countries (LMICs). IMAgINE focuses on the potential of midwifery-led care and services to address a range of complex problems by first establishing a network of actors from Malawi (Kamuzu College of Nursing), Sudan (Ahfad University and Sudanese Midwives Association), Brazil (Casa Angela and University of São Paulo) and India (Fernandez Foundation and 3Ci). A systematic review of current evidence on the impact of midwifery units in LMICs was then carried out. We have also undertaken key stakeholder workshops and situational analyses. Future plans involve identifying pilot project sites for implementation and evaluation of MUs.

Researchers at City: Dr Susan Bradley, Dr Nathalie Leister, Professor Christine McCourt

also supports
Global Goal 5 

Birthplace in Brazil

Target 3.4: Reduce mortality from non-communicable diseases and promote mental health

This project, in collaboration with colleagues at the Oswaldo Cruz Foundation (Fiocruz) and The Federal University of São Carlos in Brazil, forms part of a wider study to look at data on childbirth care for healthy women with straightforward pregnancies in freestanding birth centres and compare it with hospital data from the project Birth in Brazil 2 (funded by the Brazilian Ministry of Health). The goal is to look at clinical, obstetrical, mental health and wellbeing outcomes, as well as service structure, antenatal care quality, women's satisfaction and respectful/disrespectful care data. Our study, funded by the Grand Challenges Research Fund, enables us to look specifically at outcomes of births planned in midwifery units in Brazil. The study will provide evidence that should increase confidence in the implementation of midwifery units (Centro de Parto Normal peri-hospitalar) across the country as a key element of Brazil's maternity reform policy.

Researchers at City: Dr. Nathalie Leister, Dr. Louise Williams, Dr. Rose Coates, Professor Susan Ayers, Professor Christine McCourt

also supports
Global Goal 5 

Education

Continuous Personal and Professional Development: International Health Systems

Target 3.8: Achieve universal health coverage

As pressures on health services increase, policymakers around the world struggle to meet conflicting demands of expanding and improving health care and outcomes, while attempting to constrain health spending and manage scarce resources.

Taking an international and comparative approach, this module identifies approaches to designing and improving health systems that are most likely to resolve these and other critical dilemmas.

The module enables students to understand and evaluate health care and provides the frameworks and tools needed to undertake analysis of health systems in developed and developing countries.

Continuous Personal and Professional Development: Global Health

Target 3.C: Increase health financing and support health workforce in developing countries

The Global Health module focuses on identifying and assessing the challenges in public health from a global perspective. It provides students with a platform for education and research about health challenges facing the world's populations, particularly those burdened by poverty.

The overarching aim of the principles of global health is to contribute to a reduction of the global burden of disease. Focus is placed on the distribution and determinants of health, diseases and injuries in populations with different social, economic and cultural characteristics, maternal and child health.



CPPD courses give students an understanding of global health systems

CitySight

Target 3.8: Achieve universal health coverage

CitySight – City's on-campus optician service – offers eye tests to the general public that are free on the NHS to those who are eligible and offered at a reduced rate for student clinics. CitySight operates a range of specialist clinics, while research undertaken at City also looks to engage national and international communities to develop better eye care for all.

Research

Delivering enhanced eye care through community optometric practice

Target 3.B: Support research, development and universal access to affordable vaccines and medicines

As demographic trends in the UK population have increased the burden on Hospital Eye Services, research conducted at City has demonstrated that community optometrists are able to provide specialist services that are clinically effective, cost effective and associated with high patient satisfaction. Our findings have influenced national ophthalmic service redesign, while City has developed clinical management guidelines for common eye conditions that have been adopted as decision-support tools in national eye care pathways and have been incorporated into clinical guidelines internationally.

Researchers at City: Professor John Lawrenson, Professor David Edgar, Dr Evgenia Konstantakopoulou

Engagement

Helping to develop an ophthalmic nursing curriculum in Tanzania

Target 3.B: Support research, development and universal access to affordable vaccines and medicines

Since her appointment as Vision 2020 Programme Director in July 2019, Dr Michelle Hennelly has developed a three-day curriculum training workshop, which is held at City for attendees from Tanzania, Botswana and Ghana. As a consequence, Dr Hennelly was invited by the Tanzanian government to advise at a stakeholder meeting to discuss its ophthalmic nursing training programme, with the goal of engaging educational stakeholders in the revitalisation of the country's ophthalmic nursing training programme.



Goal 4: Quality Education

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Research

Improving support for children with hidden language and communication difficulties

Target 4.5: Eliminate all discrimination in education

One in ten young children in the UK have language and communication disorders, of whom about a quarter have additional diagnoses including deafness and autism. The lifetime negative consequences for their education, social inclusion and employment are well established.

The Developmental Assessment and Intervention Research (DAIR) Group has devised innovative, systematic, standardised clinical assessments. These have enabled early identification of language and communication disorders in hearing and deaf children that were previously diagnosed in the late primary school years or not at all. This meant children missed out on critical years of early intervention.



The DAIR group has developed new clinical assessments

The new assessments have been endorsed by leading organisations supporting children and families. They are being used across UK health trusts and specialist provisions, and internationally, to guide intervention and to evaluate intervention outcomes. As a result, the needs of children with hidden problems receive earlier recognition. This in turn leads to earlier and more appropriately targeted intervention, as well as more efficient and effective use of limited clinical resources.

DAIR is one of four research groups based at City's Centre for Language and Communication Science Research.

Researchers at City: Professor Shula Chiat, Professor Ros Herman, Professor Gary Morgan, Professor Penny Roy

Education

From the periphery to the mainstream: mentoring in schools on the curriculum

Target 4.3: Equal access to affordable technical, vocational and higher education

Since 2016, the Business School (formerly Cass) has taught an accredited mentoring and coaching module on the undergraduate degree curriculum. Typically, mentoring has been an extra-curricular, voluntary activity. Instead, through this module, students learn coaching theories and practical people skills to immediately implement and practice in the field, mentoring young people at secondary schools in deprived communities.

This in turn supports mentees' attainment and promotes social mobility by raising aspiration for progress into higher education and meaningful work. The programme also supports students from disadvantaged backgrounds in their first year at university, as they settle in to life in higher education.

To date, 191 students have supported 183 pupils in four London secondary schools and 282 first-year university students settling into their study programme. The project started as an innovative partnership with Sir John Cass's Foundation and is now being adopted by other UK universities to fit their context.

also supports
Global Goal 10



A former mentor meets with leaders in education to share her experience on the programme

New degree pathway: Business Management with Social Purpose

Target 4.7: Education for sustainable development and global citizenship

Society needs future leaders who care. From charities and social enterprises to multinational corporations, government departments and start-up businesses, modern organisations need leaders who pay attention to socio-economic and environmental issues.

The Business School (formerly Cass) recognises the importance of this and has developed expertise in business management and charities, non-governmental organisations (NGOs), corporate social responsibility, volunteering and social enterprise over many years. This is evidenced by the work of the Centre for Charity Effectiveness (CCE), pioneering research by ETHOS – the Centre for Responsible Enterprise – and the School's position as a UN PRME (Principles for Responsible Management Education) Champion, connecting the Global Goals to research and teaching.

A new degree pathway, enrolling in September 2020, teaches the fundamentals of business management and provides in-depth understanding of local and global socio-economic issues, giving graduates the knowledge, skills and experience that is increasingly attractive to employers.

By learning about topics including social entrepreneurship, corporate social responsibility and investment, non-profit management and the management of culture, values and business ethics, the School is reaffirming a long-standing commitment to responsible management education.

also supports
Global Goal 8



Student speakers attending the London Student Sustainability Conference



Plenary session: How can universities support the Global Goals?

Engagement

London Student Sustainability Conference 2020

Target 4.7: Education for sustainable development and global citizenship

Developed and hosted at City in February 2020, the second London Student Sustainability Conference built on the success of the previous year's inaugural event.

The Conference provides opportunities for students from City and other London universities to gain experience in presenting their own academic and extra-curricular projects to fellow students, academics and the public. Each presentation details how students' work inspires positive impact in the world and links to one or more of the Global Goals.

The Conference also gives students the chance to explore sustainability in relation to their subject, to network and to broaden their knowledge of the challenges and solutions to today's most critical issues. This year, the plenary session focused on the role that students and universities can play in achieving the Goals.

also supports
Global Goal 9





Goal 5: Gender Equality

Achieve gender equality and empower all women and girls

Research

The Gender and Sexualities Research Centre

Target 5.5: Ensure full participation in leadership and decision-making

Analysing how gender and sexuality intersect with other social divisions and identities in a rapidly changing world and promoting interdisciplinary dialogue, collaboration and research, the Gender and Sexualities Research Centre (GSRC) acts a hub that draws together wide-ranging research from across City. Under GSRC Director, Professor Jo Littler, the Centre provides an intellectual base and fosters interdisciplinary dialogue, collaboration and research within City and beyond.

also supports
Global Goal 3 

Ending female genital circumcision in an Ethiopian village

Target 5.3: End forced marriages and genital mutilation

Funded by a Global Challenges Research Fund Institutional Grant, this joint School of Arts and Social Sciences and School of Health Sciences research project, working in collaboration with Ethiopia-based midwives, examined a successful campaign that led to the eradication of Female Genital Cutting (FGC). The research identified the reasons for the success of the public health intervention in Sisay village in south west Ethiopia. One reason for success was the strong relationship of trust between the midwife campaign leaders and villagers of all ages and genders.

Researchers at City: Dr Christopher McDowell, Dr Susan Bradley, Dr Mandie Scamell, Harriet McDowell

also supports
Global Goal 3 

Expert Women on air

Target 5.5: Ensure full participation in leadership and decision-making

From October 2013 until June 2018, City's Department of Journalism monitored the proportion of expert women interviewed on six flagship UK news programmes. The underrepresentation of women experts caused shock in the industry, with the resulting campaign to ensure women experts were accurately represented resulting in a doubling of female expert participation. This impact was attested by testimonials and support from leading news editors and external agencies. The project included conferences, academic study, media coverage and practical work such as the Expert Women Days developed by the BBC Academy in direct response to City's research.

Researchers at City: Professor Lis Howell



Maternal health clinic in Gurage Zone, Ethiopia offering delivery, child health, first aid and emergency care

Education

Sexuality and Gender in World Politics

Target 5.5: Ensure full participation in leadership and decision-making

Taught by Dr Koen Sloatmaeckers in the Department of International Politics, this module examines ways in which world politics are shaped by sexuality and gender.

What is the role of women and LGBTI people in international politics? How are international politics shaped and informed by the power structures of gender and sexuality? How are women and LGBTI people's lived experiences impacted by international politics?

These three questions are the guiding principles of the module, which seeks to unpack how the power dynamics of world politics are closely intertwined with, and draw on, the dynamics that shape the gendered and sexual hierarchies, while also exploring the impact on people's material reality.

Short course: Domestic Violence and Abuse Awareness Training

Target 5.2: End all violence against, and exploitation of, women and girls

This half-day course is aimed at healthcare professionals and non-clinical staff (receptionists, support staff, health care assistants) who wish to develop an awareness of domestic violence and abuse (DVA). The course encourages consideration of the risk factors for DVA and the impact on health and wellbeing of victims. Individuals can also gain knowledge on where to go for advice and how to find out about local support services for victims.

also supports
Global Goal 16 

Engagement

Aurora: A leadership development initiative for women

Target 5.5: Ensure full participation in leadership and decision-making

City has participated in the Aurora programme (Advance HE's leadership development initiative for women) since 2014 and this year made 12 places available for eligible staff. To enhance the benefits from the programme, City has designed an additional wrap-around development process. This includes a competency-based interview with senior leaders from across the institution, providing a development and

profile-raising opportunity. Shortlisted candidates are offered a 360 exercise, FIRO B personality questionnaire and interview feedback session with an external coach. This City selection and development process forms part of our commitment to the development of women leaders.

All successful City candidates are matched with an internal mentor as part of the programme. City also encourages our Aurora delegates to complete an Aurora Project while participating in the programme. This initiative encourages the integration of skills learned on the programme, increases visibility of the delegate within the organisation and encourages the embedding of women-led initiatives at a cross-organisational level.

A recent quantitative evaluation of past City participants found:

80% reported increased confidence in decision-making
70% indicated increased awareness of HE sector leadership issues, increased confidence in facilitating change and are better equipped to respond to challenges within their departments.

Governance

Athena SWAN

Target 5.5: Ensure full participation in leadership and decision-making

The Athena SWAN Charter recognises the advancement of gender equality for academic and professional services staff in higher education institutions and celebrates and recognises good employment practices undertaken to address gender equality more broadly, not just barriers to progression that affect women. As a Charter member since 2005, City holds a Bronze award to demonstrate its commitment to gender equality.

To promote an organisational culture and accomplish effective and lasting change, we launched a gender equality Staff Culture survey in January 2020. Emerging from qualitative data were themes that included bullying and harassment, experience of trans colleagues, family-related leave and caring responsibilities, flexible working and career breaks. Progress against these issues is being taken forward through a comprehensive action plan working in partnership with our staff affinity networks.



Goal 6: Clean Water and Sanitation



Goal 7: Affordable and Clean Energy

Ensure availability and sustainable management of water and sanitation for all
Ensure access to affordable, reliable, sustainable and modern energy for all

Research



Using optical sensors to detect pollutants in drinking water

Target 6.3: Improve water quality, wastewater treatment and safe reuse

Heavy metal pollution is one of the most serious environmental problems undermining global sustainability. A project funded by the Natural Environmental Research Council (NERC) currently taking place at City under the leadership of Professor Azizur Rahman is developing low-cost optical sensors to detect heavy metals, such as mercury and lead, in drinking water and wastewater. Working in partnership with the Indian Institute of Science (IISc) in Bangalore, City researchers are developing innovative long period gratings (LPG)-based optical sensors and functionalising them to detect targeted heavy metals.

Researchers at City: Professor Ken Grattan,
Professor Azizur Rahman



Extreme loading on floating offshore wind turbines under complex environmental conditions

Target 7.2: Increase global percentage of renewable energy

A project led by Dr Shiqiang Yan at City's School of Mathematics, Computer Science and Engineering aims to fill an important gap in the design, manufacture and testing of emerging floating offshore wind turbines (FOWT) techniques by specifically characterising extreme loading on FOWTs under complex and harsh marine environments.

Researchers at City: Dr Shiqiang Yan



Increased efficiency for absorbers in solar cells

Target 7.1: Universal access to modern energy

Despite offering a clean alternative to fossil fuels, most commercially available solar cells are only 20 per cent efficient. Under Professor Azizur Rahman at City, a Newton International Link project in partnership with Zewailcity University in Egypt is focusing on the development of more efficient solar cells. This project is exploring innovative ways to reduce the reflection of light, which causes energy loss through light scattering inside the cell, by introducing nano-pillars to increase the absorption of light and enhance efficiency.

Researchers at City: Professor Ken Grattan,
Professor Azizur Rahman

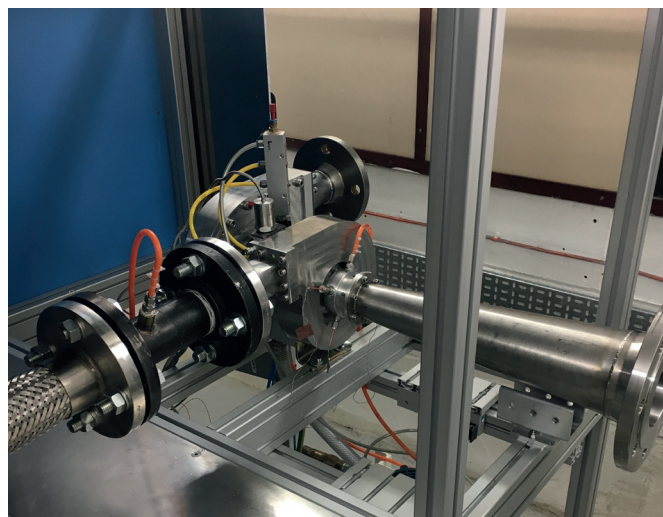


SolGATS: Concentrated solar power micro gas turbine with thermal energy storage

Target: 7.2 Increase global percentage of renewable energy

Led by Professor Abdalnaser Sayma, Director of the Thermo-Fluid Research Centre at City, this project aims to integrate micro gas turbine systems – developed by City in collaboration with Samad Power Ltd – with a concentrated solar power parabolic dish with high temperature thermal energy storage. This will allow for the production of combined electricity, heating and cooling from solar power, which reduces the need for back-up power and helps reduce carbon dioxide emissions.

Researchers at City: Professor Abdalnaser Sayma



A micro gas turbine test rig

Education



Power and Renewable Markets

Target 7.A: Promote access to research, technology and investments in clean energy

Offered as part of City's MSc in Renewable Energy and Power Systems Management, this module places climate and energy policies in the context of the power sector. In particular, students are encouraged to consider the challenges of integrating modern renewable energy sources and the implications for electrical systems. The module also focuses on exploring the drivers behind investment in expanding renewable power sources.



MSc Energy and Environmental Technology and Economics

Target 7.2: Increase global percentage of renewable energy

This master's degree has been designed to give students a wider perspective when it comes to analysing and forecasting the future for energy, environmental technology and economics. External lectures form a key element of the course, with sessions delivered by industry professionals, including members of the Islington Sustainable Energy Partnership and City's Head of Sustainability. This close cooperation with both industry and the institution itself has led to several collaborative projects and a range of dissertations that have benefited both City and the local business community.

Engagement



National symposium: Developing socially responsible STEM professionals



Target 6.A: Expand water and sanitation support to developing countries

Target 7.A: Promote access to research, technology and investments in clean energy

With a world population of 7.8 billion people, global society needs engineers and scientists who can create solutions to mega-challenges such as clean energy and climate change. This symposium examined the need for STEM (science, technology, engineering and mathematics) learners to also understand key elements of social responsibility, such as ethics, circular economy and cultural differences.

Developed at City, the event showed several different applications and perspectives on developing socially responsible professionals in STEM fields. With speakers and participants drawn from industry, academia, government and professional institutions, two clear actions were identified from the symposium:

- Identify the common ground across STEM professionals on social responsibility and enable sharing of best practice
- Develop a skills base for socially responsible professionals for learners to use in their future decision-making.

also supports
Global Goal 4



New building for The City Law School

On campus



The City Law School building



Target 6.4: Increase water-use efficiency and ensure freshwater supplies

Target 7.3: Double the improvement in energy efficiency

The recently completed building for The City Law School illustrates City's commitment to minimising both the local and global impact of its operations. The building achieves a Building Research Establishment Environmental Assessment Method (BREEAM) rating of excellent, which requires building performance to be at least 25 per cent above building standard (Part L). The building achieves this by incorporating several innovations within its design.

Ground source heat pumps (GSHP) and a low airflow displacement ventilation system enable the building to use local ground water as both a heat source and heat sink, to provide both heating and cooling as required.

Rainwater harvesting, via an innovative blue roof system, retains water for a longer period, slowing its discharge to surface water systems and reducing the risk of localised flooding.

The building's need for grid-connected electricity is partially offset through the use of solar photovoltaic panels (PV) at roof level. The remaining electricity requirement comes from 100 per cent renewable sources, in line with City's energy policy.

also supports
Global Goal 9





Goal 8: Decent Work and Economic Growth

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Research

Strategic roster planning

Target 8.8: Protect labour rights and promote safe working environments

Poor staff rosters are at the heart of socially unacceptable working patterns, inadequate rest times and increased levels of stress and fatigue.

They lead to poor productivity, low levels of engagement, increased risk in the workplace and additional costs associated with high staff turnover and absenteeism.

Research undertaken by Professor Celia Glass, Professor of Management Science and her team at the Business School (formerly Cass), has harnessed the power of optimisation techniques to take account of fatigue and risk factors and hence improve the quality of staff rosters in call centres and hospitals.

The state-of-the-art AI rostering programme is deployed through a University spin-out company, Nightglass Medical Rostering Ltd., for NHS doctors' rotas. Its efficient rosters simultaneously reduce reliance on costly agency fees, increase training opportunities, and give doctors more autonomy over their working hours.

Researchers at City: Professor Celia Glass, Dr Roger Knight, Dr Azra Zyada

also supports
Global Goal 3

Macroprudential and monetary policy for emerging markets

Target 8.10: Universal access to banking, insurance and financial services

Properly managing monetary and macroprudential regulation in developing countries with volatile capital flows has been a significant challenge for many years. A collaborative research project undertaken by Francesc Rodriguez Tous at the Business School (formerly Cass) with colleagues from the Central Bank of Uruguay is shedding light on the mechanisms underlying these policy tools, with a view to determining how to improve their use.

Researchers at City: Francesc Rodriguez Tous

Education

Corporate Social Responsibility (CSR); Global Issues of CSR; Business and Society; Global Economic and Social Challenges

Target 8.1: Sustainable economic growth

Modules on CSR are currently being taught on many courses within the Business School (formerly Cass). Students are encouraged to explore the complexities around defining CSR and how corporations (private, public and third sector) are responding to the challenge of improving their social, environmental and ethical performance.

Closely linked with the Business School's other CSR modules, Global Economic and Social Challenges explores CSR through an examination of the relevance to business of economic thinking. Students are provided with an understanding of the tools and language used by economists to analyse economies and networks of economies and how this intrinsically links to CSR.

Business Sustainability

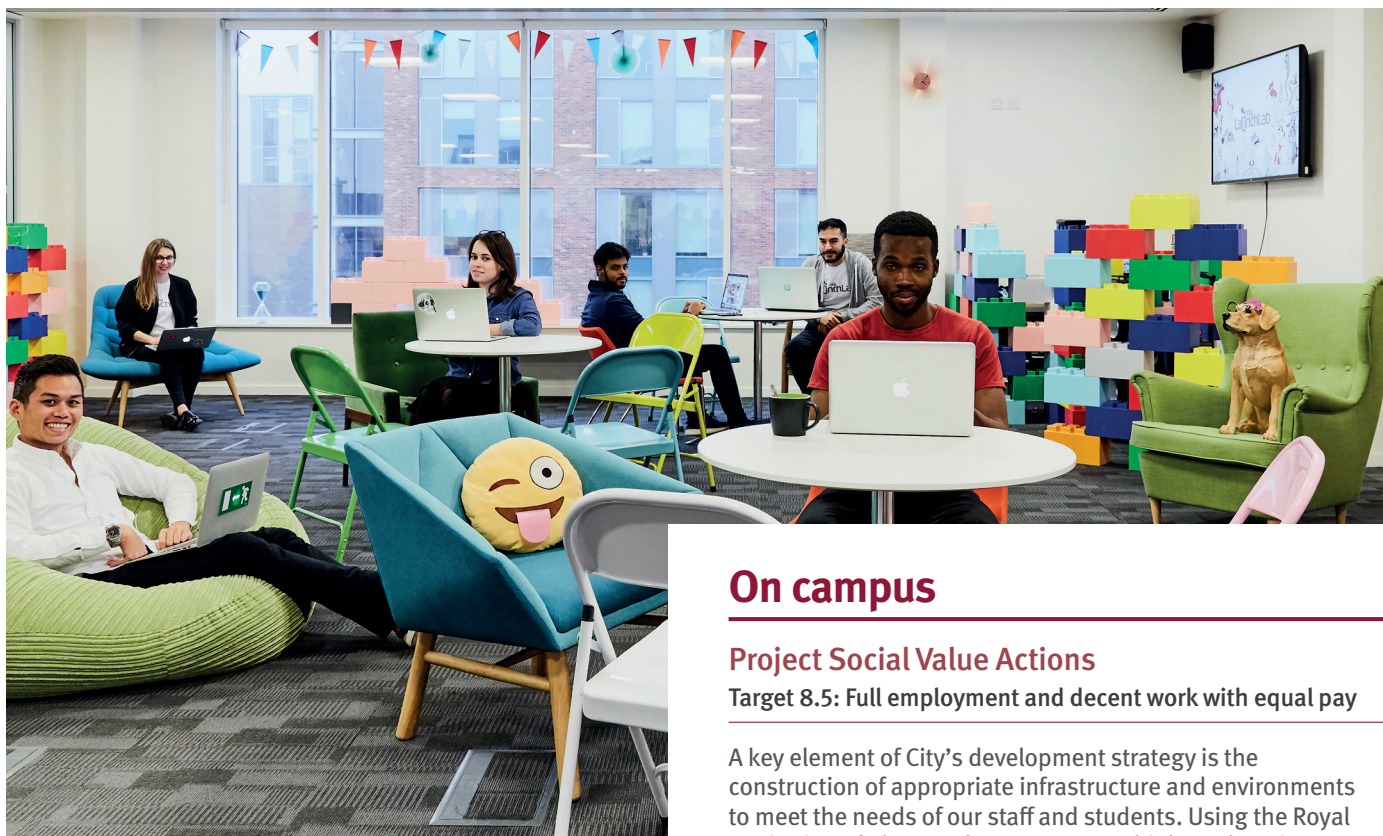
Target 8.1: Sustainable economic growth

This module forms part of the Business School's specialist MSc in Global Supply Chain Management. It encourages students to reflect on corporate sustainability and the complex social, ethical and environmental responsibilities that business organisations hold towards a variety of stakeholders. Students also explore the challenges involved in building sustainable products while maintaining sustainable supply chains in real-world business situations.

Ethics, Society and the Financial Sector

Target 8.1: Sustainable economic growth

Part of the Business School's MSc Real Estate Investment, this module prepares a new generation of managers and professionals in the financial sector to make responsible and ethical decisions. Students are encouraged to explore issues around societal concerns, sustainability and ethical behaviour.



The Launch Lab supports the development of City entrepreneurs

Engagement

City Launch Lab

Target 8.6: Promote youth employment, education and training

The City Launch Lab is an incubation space for City's student and graduate entrepreneurs in the early stages of venture creation. The initiative provides a range of services, business expertise and community support to the participants for up to 24 months, enabling them to benefit from mentoring by entrepreneurs and practitioners to develop their ventures and skill sets.

The recent cohort included social enterprises such as Leiho, which has developed products to tackle plastic usage and social problems. Meanwhile, catering company Seven Cherries has been nominated for awards for carbon footprint reduction while developing delicious food from locally sourced and seasonal ingredients.

also supports
Global Goal 9 

On campus

Project Social Value Actions

Target 8.5: Full employment and decent work with equal pay

A key element of City's development strategy is the construction of appropriate infrastructure and environments to meet the needs of our staff and students. Using the Royal Institution of Chartered Surveyors SKA higher education rating system as guidance, all construction and refurbishment projects over £2M are required to submit a social, economic and environmental plan prior to start on site.

Projects must make quantifiable steps in at least four of the following criteria:

1. The viability of employing apprentices during the project
2. The viability of taking on work experience students during the project
3. The proportion of the project spend that will be spent in the local community
4. The proportion of materials that were sourced from the local community
5. An approximation of the number of work hours generated in the local community by the project
6. The viability of offering additional training to operatives or other project stakeholders that will provide added value to the local community
7. Any additional environmental issues not picked up in other aspects of SKA, e.g. ethical or fair trade food sourcing for the project canteen, real-time environmental monitoring or carbon offset programmes.

also supports
Global Goal 11 



Goal 9: Industry, Innovation and Infrastructure

Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation

Research

Novel steel reinforcement products for retrofitting masonry structures in earthquake zones

Target 9.1: Develop sustainable, resilient and inclusive infrastructures

A collaboration between City and Target Fixings seeks to assess the feasibility and effectiveness of novel steel reinforcement products to retrofit masonry structures in areas of seismic activity. The aim of the project is to increase the resistance of structures to seismic forces, saving lives and providing cost-effective structural reinforcement.

Target Fixings has significant experience in the application of its products in the UK, but lacks expertise in the areas of seismic design, assessment and detailing of structures (its testing capabilities are also limited to basic applications). Testing facilities are only available in a small number of UK universities, City being one of them.

This is where City's research unit – part of the Civil Structures Research Centre – steps in. As the UK leader in the field of Earthquake Structural Engineering, the unit is able to address analysis, design and testing issues that cannot be tackled in a comprehensive way by consulting engineers.

Researchers at City: Dr Brett McKinley, Dr Panagiotis Mergos

also supports
Global Goal 11

Predicting landslides with advanced optical sensors and artificial intelligence

Target 9.A: Facilitate sustainable infrastructure development for developing countries

This project, led by Professor Ken Grattan, involves monitoring, predicting and mitigating the disastrous effects of monsoon rain in Malaysia. It involves the development of advanced distributed sensor systems to detect the build-up of pressure and to monitor the slow earth movements that precede a landslide. Providing advance warning and allowing precautionary steps to be taken, this technology will prove especially important to Malaysia's most disadvantaged communities, the wellbeing of whom depends on more effectively predicting critical disaster events.

Researchers at City: Professor Ken Grattan, Professor Aziz Rahman

also supports
Global Goal 11



Pantograph instrumentation process for Great Western overhead line inspection (City and Brecknell Willis)

Self-sensing railway electrification system for efficient operation and improved maintenance

Target 9.4: Upgrade all industries and infrastructures for sustainability

Professors Tong Sun and Ken Grattan have developed a self-sensing railway current-collecting pantograph by working closely with Faiveley Brecknell Willis (FBW), a UK-based world-leader in rail electrification.

The 'smart' pantograph, mounted on the roof of electric trains, is able to provide remote monitoring of the contact condition of the pantograph with the overhead wire, enhancing operational safety and informing timely maintenance. The system minimises failure of the rail electrification system, helps avoid costly and time-consuming site access by maintenance staff to repair or replace failed units and significantly reduces maintenance costs.

Researchers at City: Professor Ken Grattan, Professor Tong Sun

Education

Tech for Social Good Study Tour

Target 9.B: Support domestic technology development and industrial diversification

Students on the Business School's (formerly Cass) MBA programme can choose a module aimed at understanding the institutional, political, socio-economic and business drivers that lead to technology-enabled social innovation in both the UK and Sub-Saharan Africa. This immersive module includes field research components and students are encouraged to reflect on the role of technology as a driver for social change in both developed and developing countries.

also supports
Global Goal 17



Seven Cherries pitching during the GreenSpark final



GreenSpark winner; Seven Cherries

Engagement

GreenSpark

Target 9.3: Increase access to financial services and markets

The GreenSpark Award encourages and supports students and recent graduates to develop sustainable business ideas and apply innovation to real-world problems.

The two-phase competition challenges budding entrepreneurs to develop businesses that deliver positive social impact and tackle key environmental issues, awarding funding to the winners. This year, the initiative won the Enterprise Green Gown Award (the awards recognise the exceptional sustainability initiatives being undertaken by universities and colleges in the UK and Ireland) for building students' enterprise skills in a way that also results in beneficial social and environmental impacts. Twelve projects were submitted in phase one, with the second phase postponed to later in 2020 due to Covid-19.

also supports
Global Goal 4





Goal 10: Reduced Inequalities

Reduce inequality within and among countries

Research

Improving access to justice for vulnerable child witnesses

Target 10.3: Ensure equal opportunities and end discrimination

A case study produced by researchers at City outlines the impact of research showing that autistic children can be reliable witnesses and that Registered Intermediaries (RIs – communication specialists) improve the accuracy and volume of recall for child witnesses.

This research has led to raised awareness among police officers and advocates about the needs of autistic witnesses and the value of registered intermediaries. Evidence-based guidelines created for people interviewing autistic individuals have been downloaded thousands of times and cited in the College of Policing's Authorised Professional Practice website.

Researchers at City: Professor Lucy Henry, Dr Gilly Nash, Dr Laura Crane

Addressing the disability employment gap

Target 10.4: Adopt fiscal and social policies that promote equality

A researcher at City co-produced and disseminated the All Party Parliamentary Group on disability (APPG) report *Ahead of the Arc*, endorsed by cross-party MPs and peers. Following meetings with ministers, politicians and civil servants to influence the BEIS Industrial Strategy and joint DWP/DoH white paper on health and employment, the researcher has continued to work with Disability Rights UK to influence policy on a wide range of issues including apprenticeships, employer engagement and use of the Social Value Act in procurement.

Researchers at City: Professor Nicolas Bacon

also supports
Global Goal 8 

Education

Short course: Immigration and Asylum Law

Target 10.7: Responsible and well-managed migration policies

Over the duration of this short course, students gain an understanding of a wide range of immigration issues. They are provided with refusal letters and case determinations in order to understand the decision-making process. Discussions are then held on the evidence that can demonstrate intention, and case scenarios drafted in a similar way to examination questions are provided so that students pursuing a career in immigration law are better prepared for the journey ahead.

also supports
Global Goal 16 



The short course is aimed at those without formal training in immigration and asylum law

Continuing Professional Development: Disability Awareness for Professionals working in the Justice System

Target 10.3: Ensure equal opportunities and end discrimination

This course allows professionals to become familiar with background legislation, specifically the Equality Act and the 1999 Youth and Criminal Justice Act. Individuals are also encouraged to appreciate the range of needs that vulnerable clients may present, and to develop an understanding of different disabilities and the various ways they might be visible or invisible. The course also covers topics including the role of an intermediary in the justice process, how to take referrals and the importance of clear communication.

Engagement

The Race Equality Charter

Target 10.3: Ensure equal opportunities and end discrimination

The Race Equality Charter is a national scheme by AdvanceHE that provides a framework for institutions to work to identify and self-reflect on institutional and cultural barriers standing in the way of minority ethnic staff and students.

City is applying for the Bronze award by submitting a thorough self-assessment and race equality action plan.

Access and Participation Plan

Target 10.3: Ensure equal opportunities and end discrimination

City's Access and Participation Plan (APP), approved by the Office for Students, sets out how we will improve equality of opportunity for underrepresented groups to access, succeed in and progress from City. Through our APP, City is devising specific plans around supporting access and outreach, student continuation, student attainment and progression into graduate-level employment.

Widening Participation

Target 10.2: Promote universal social, economic and political inclusion

City's Widening Participation Outreach team engage with around 100 schools each year to empower underrepresented learners to access and succeed in higher education. They deliver a programme of targeted activity, starting with primary school pupils all the way to new undergraduate students. The programme focuses on careers information, advice and guidance and attainment-raising through tutoring, mentoring and providing higher education insights direct from current City students on campus visits and online webinars. In 2019/20, in response to the pandemic, we also developed a Widening Participation Outreach blog that parents, teachers and students could access to support home learning, as well as learning packs that we distributed through schools and food banks to families impacted by digital poverty.

also supports
Global Goal 4



Governance

Equality, Diversity and Inclusion (EDI) strategy

Target 10.3: Ensure equal opportunities and end discrimination

City's EDI strategy, created this year, focuses on four main (but not exclusive) areas: disability, gender, race and sexual orientation. This focus helps us give due regard to key aspects of EDI and use our resources effectively. Alongside our four main areas of focus, we will continue to explore, deliver and develop projects and work streams relating to other protected groups. The implementation of our strategy is underpinned by a delivery plan and its progress is monitored by City's EDI Committee.

also supports
Global Goal 5



Embedding Equality, Diversity and Inclusion into our core ethos

Review of City's historical sources of funding

Target 10.4: Adopt fiscal and social policies that promote equality

City has made a commitment to re-examine the ways in which we can stand against racism and challenge structural and institutional inequalities present or historical. Recent events have brought the historical and continuing issues of racial inequality and discrimination into sharp focus. City has committed to this review in order to:

1. Consider all of City's historical sources of funding
2. Determine if there are any links to the historical transatlantic slave trade
3. Make recommendations to the President and Council.



Goal 11: Sustainable Cities and Communities

Make cities and human settlements inclusive, safe, resilient and sustainable

Research

Preserving Egypt's cultural heritage from earthquake damage

Target 11.2: Protecting the world's natural and cultural heritage

This project – led by Professor Ashraf Ayoub at City's School of Mathematics, Computer Science and Engineering – aims to apply an innovative concept in earthquake engineering to the control of whole heritage sites without the need for alteration in the ancient structures. The idea is to introduce a vibrating barrier in the ground that is able to interact with the soil and the earthquake in order to mitigate the seismic risk across the entire site.

Researchers at City: Professor Ashraf Ayoub

Harnessing Formula 1 technology to construct material-efficient tall buildings

Target 11.3: Inclusive and sustainable urbanisation

Counteracting wind-borne oscillations of tall slender buildings often requires attaching to the top floors oscillating masses which may weigh up to 1,000 tonnes. Funded by an Engineering and Physical Sciences Research Council bright ideas grant, Dr Agathoklis Giaralis developed Formula 1-inspired technology to reduce the required attached weight to tall buildings by up to 70 per cent. This consideration enables the construction of taller and thinner buildings without compromising occupant seasickness risk in windy conditions. Such slender structures require fewer materials and resources to construct, cost less and are more sustainable, while using high-premium urban land more efficiently.

Researchers at City: Dr Agathoklis Giaralis



Using Formula 1-inspired technology to construct taller, slimmer buildings

Education

Common Purpose

Target 11.C: Support least developed countries in sustainable and resilient building

Over the past three years, City has supported 72 students to travel to India and Vietnam on a Global Leader Experience, delivered by Common Purpose and in partnership with Royal Melbourne Institute of Technology.

City students work alongside others from around Southeast Asia in an immersive, experiential and inclusive leadership and cultural development training programme. They tackle real-world challenges, including ‘How to ensure smart cities are inclusive?’ and ‘How do we ensure technological innovation delivers societal as well as economic value in cities?’

Students meet with leading industry experts to gain first-hand experience of how organisations manage these global challenges. By stepping outside their comfort zone, students gain invaluable employability skills, intercultural competence, resilience, and increased confidence and self-esteem.

also supports
Global Goal 8 

Engagement

The World Cities World Class University (WC2) network

Target 11.3: Inclusive and sustainable urbanization

City is a founding member of the WC2 network, established in 2010 to enable collaboration between universities on challenges and opportunities facing urban areas. The network’s nine members are all located in world cities and apply their experience and knowledge to six thematic areas affecting their urban locations. These are business, cybersecurity, eco-campus, global health, knowledge culture, and urban affairs and transport.

WC2 provides a platform for interdisciplinary and cross-border collaboration for scholars and students within these areas. A particular strength is harnessing local experiences and applying them at an international level. As the network is unable to convene physically at its annual meeting this year due to Covid-19, a series of webinars focusing on each theme of the network will bring members together.

also supports
Global Goal 17 



City and fellow members of the WC2 network at an event in Xi'an



Goal 12: Responsible Consumption and Production

Ensure sustainable consumption and production patterns

Research

Reducing emissions with high-pressure durable fuel injectors

Target 12.6: Encourage companies to adopt sustainable practices and sustainability reporting

Led by Professor Manolis Gavaises, researchers at City are exploring novel experimental techniques and computational methods designed to reduce the maintenance and operational costs of heavy-duty diesel engines and to greatly reduce harmful emissions. For the first time, real-fluid property thermodynamics and viscoelastic effects are being considered in the design, manufacturing and serial production of durable fuel-injection equipment. This work has resulted in the prevention of catastrophic cavitation erosion in fuel-injection equipment, the design of fuel with improved properties and the commercialisation of viscoelastic fuel salt additives, which increase efficiency.

Researchers at City: Professor Manolis Gavaises

Resolving conflict in the extractive industries

Target 12.6: Encourage companies to adopt sustainable practices and sustainable reporting

There are more than 800 ongoing conflicts involving the extractive industries (mining, oil and gas) and communities impacted by extractive activity, mainly in the developing countries of Africa, Asia and Latin America. Professor Bobby Banerjee's research explores the potential for a more community-based approach to natural resource extraction. He is interested in identifying and explaining linkages between corporate strategies, government policies, civil society initiatives, community interests and achieved outcomes in both advanced and emerging economies.

Researchers at City: Professor Bobby Banerjee, Johanna Jarvela

Engagement

obj.12 – A student Sustainability Leaders' project

Target 12.8: Promote universal understanding of sustainable lifestyles

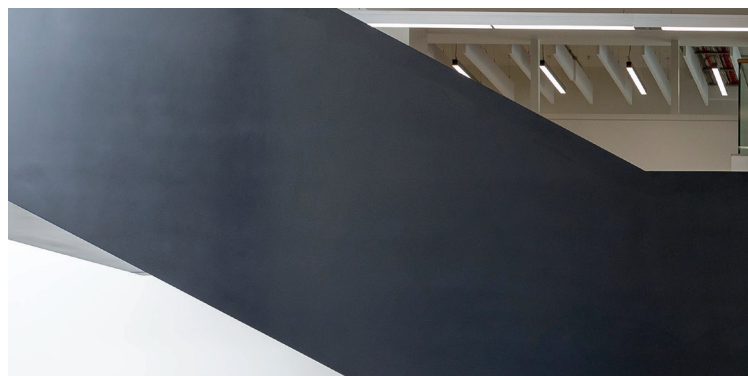
City runs the student Sustainability Leader programme for volunteers who develop and deliver sustainability projects on campus and in the community. This year, we partnered with WokenUp, a social media with purpose platform, to provide a group of student Sustainability Leaders with the opportunity to create their own film focusing on their sustainability passion.

The winning team, obj.12 (a reference to Global Goal 12), got the chance to work with industry professionals to produce a short film about fast fashion, its damaging effects on the environment and the available alternatives. This supported the work they were already doing to raise these issues through dedicated social media channels. They presented the final film at the London Student Sustainability Conference 2020.

also supports
Global Goal 4



obj.12: raising awareness of the impact of fast fashion



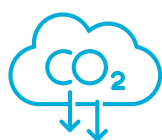
On campus

Resource management on campus

Target 12.2: Sustainable management and use of natural resources

The UK higher education sector is, through its buildings and operations, a significant consumer of resources and subsequently a major source of UK emissions. The sector is estimated to be responsible for 21 per cent of UK public sector emissions.

City works to reduce the use of natural resources on campus, and thereby reduce its overall emissions, through a series of policies, communications and facility improvements. The success of these interventions is routinely monitored and reported upon. The panel below illustrates City's performance against these environmental metrics.



Carbon emissions

4,988 Tonnes

(17% reduction on previous year)



Water consumption

27,125m³

(41% reduction on previous year)



Waste

333 Tonnes

(29% reduction on previous year)



Recycling rate

51%

(1% higher than previous year)



Construction recycling rate

94%

(4% lower than previous year)



Infrastructure improvements contribute to our carbon emissions reduction

The consumption figures are significantly lower this year due to the campus closure as a result of Covid-19



Goal 13: Climate Action

Take urgent action to combat climate change and its impacts

Research

Utilising waste heat with positive displacement screw expanders

Target 13.3: Build knowledge and capacity to meet climate change

Concerns around climate change have resulted in greatly increased interest in systems for power recovery from low-temperature heat sources. Professor Ian Smith and his team of researchers at City have been contributing to studies on the development of these systems for more than 40 years. In 1995, Professor Smith and Professor Nikola Stosic – a world authority on twin screw machines – established the Centre for Compressor Technology at City, which has developed a worldwide reputation in this field. Their work has been commercialised and the spin-out company Heliex Power is now marketing systems based on it to save energy in industry.

Researchers at City: Professor Ian Smith

also supports
Global Goal 9



A participative case study

Target 13.3: Build knowledge and capacity to meet climate change

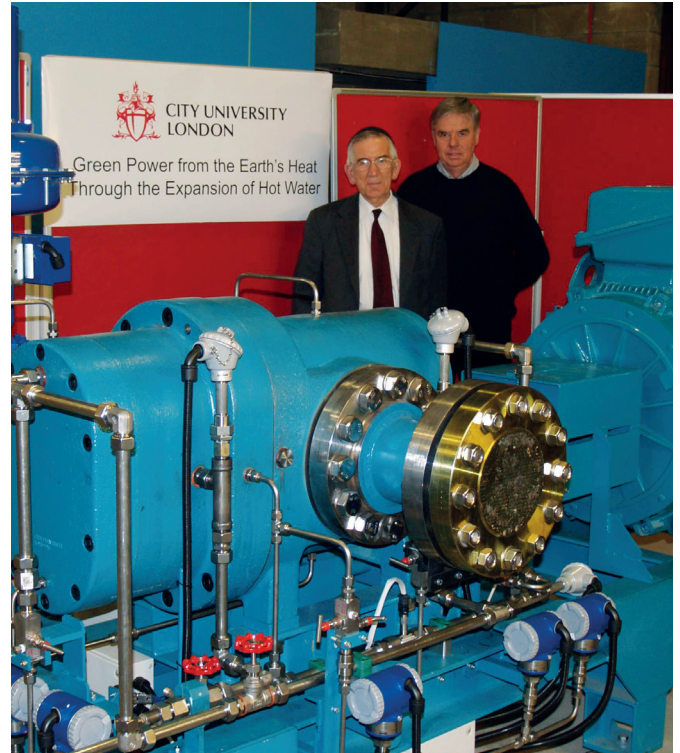
This research project explores the changes that must be made by the UK higher education sector, in its approach to the management of environmental sustainability, to enable a transformational shift in its response to climate change.

The project questions the transformative capacity of environmental management systems to respond to climate emergency. Semi-structured interviews of institutional, student and sector stakeholders alongside participative workshops form the data collection basis from which the purpose and characteristics of the current management systems were identified.

The project uses a 'Three Horizons' approach to identify the purpose and characteristics of a system capable of engendering a transformative response to climate emergency. Plausible interventions to enable a shift from the current to the new system state are then identified using leverage points.

Researchers at City: Jason Clarke

also supports
Global Goal 4



A 250kW, Geothermal Hot Water GenSet, designed and built at City for Geodynamics Pty, Australia

Education

Public attitudes to climate change

Target 13.3: Build knowledge and capacity to meet climate change

Headquartered at City, the European Social Survey (ESS) is an academically driven survey using the highest methodological standards. Since 2002/03, the ESS has provided cross-national data measuring public attitudes, beliefs and behaviour. Every two years, up to 40,000 face-to-face interviews are conducted across Europe on a wide range of subjects.

Since 2016 the ESS has surveyed public attitudes to climate change with a focus on beliefs on climate change; concerns about climate change and energy security; personal norms, efficacy and trust; and energy preferences.

The Survey has increased our understanding of how Europeans' perceptions of climate change, energy security and energy preferences are shaped by national socio-political factors; examining the role of socio-political values and engagement; and the relative importance of individual-motivational versus national-contextual variables in public energy preferences.

Engagement

Climate change and planned relocation

Target 13.2: Integrate climate change measures into policies and planning

Dr Christopher McDowell co-drafted the United Nations High Commissioner for Refugees (UNHCR) Guidance on Planned Resettlement in the context of environmental change including climate change. The Guidance is influencing state preparedness, policy and practice on relocation in Fiji and Vanuatu; has guided resettlement operations by the Red Cross in Ecuador; and has shaped community advocacy among indigenous coastal communities in Louisiana, USA.

On campus

Net zero carbon target

Target 13.3: Build knowledge and capacity to meet climate change

Future legislation and local planning requirements will require institutions to set compulsory net zero carbon dioxide emissions goals to align with the UK target.

In order to maintain City's reputation as a sustainability leader within the sector, City's Council committed to "work towards achieving net zero carbon dioxide emissions by 2040 at the latest." A deadline of 2040 has been committed to in order to address the urgency of the climate crisis and support the UK Government target of 2050. Net zero 2040 at City will allow for achievable and cost-effective replacement of existing key infrastructure at the expiry of usable life.

Ongoing and forthcoming developments – such as The City Law School building, the Library extension and future redevelopments at Northampton Square – have been, or are currently being, designed to support a net zero carbon dioxide emissions future. A Climate Change Adaptation Plan, detailing City's approach and actions to achieve this, is under development.

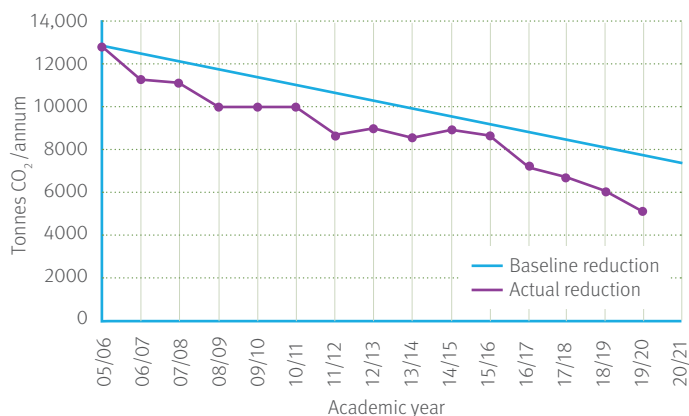
also supports
Global Goal 7 

Climate Change Adaptation Plan

Target 13.3: Build knowledge and capacity to meet climate change

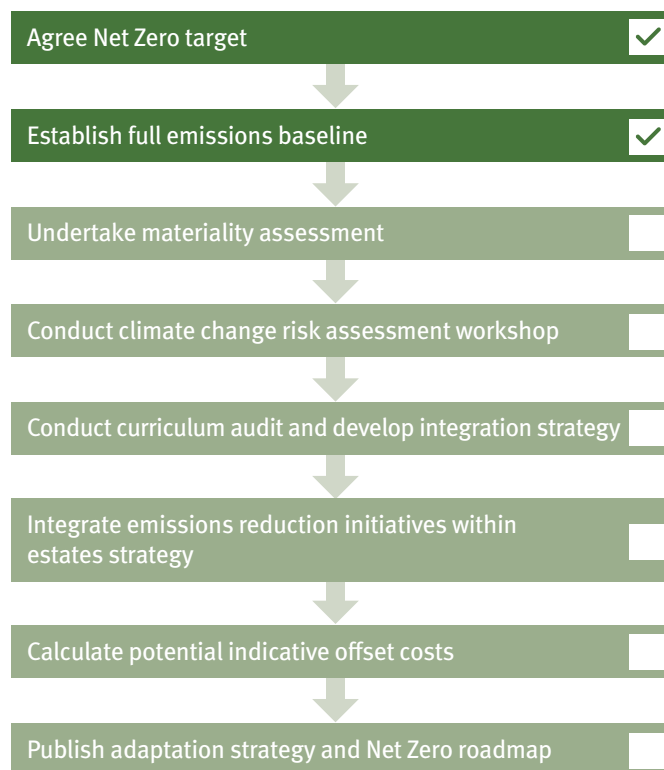
City's climate action to date has largely focused on the reduction of direct emissions, primarily from vehicles (Scope 1) and reducing indirect emissions from imported fuel sources, primarily grid electricity and gas (Scope 2), which are used to power and heat our buildings. These actions have resulted in a 61 per cent reduction in institutional Scope 1 and 2 carbon emissions, against our 2005/06 baseline.

City, University of London progress against Carbon Management Plan



Our Climate Change Adaptation Plan aims to build on this achievement, while broadening its scope to include core activities not captured by Scopes 1 and 2. These Scope 3 emissions include those associated with procurement, student and academic travel, catering and emissions from water and waste.

also supports
Global Goal 11 



Note: Several actions were rescheduled due to the impact of Covid-19



Goal 14: Life Below Water

Goal 15: Life on Land



Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Research



Addressing the causes of over-fishing and biodiversity loss in Africa

Target 14.4: Sustainable fishing

Dr Susan Hill – Senior Lecturer in Innovation and Entrepreneurship at the Business School (formerly Cass) – is leading interdisciplinary research that aims to contribute towards more ecologically sustainable fishing practices in the South-Western African countries bordering the Benguela Current Large Marine Ecosystem. The principal beneficiaries of this research will be South African marine ecosystems compromised by (or at risk of compromise from) a combination of over-fishing and environmental variability.

Researchers at City: Dr Susan Hill

also supports
Global Goal 12



Dr Susan Hill's research will benefit South African marine ecosystems



Sea lions inspired a new system to monitor riverbed erosion



Could sea lions point the way to the monitoring of riverbed erosion?

Target 14.2: Protect and restore ecosystems

A research study conducted by Professor Christoph Bruecker and his team at City has revealed that sea lions use their whiskers to detect vortices in the flow of the water they move around in. Using the specially equipped water tank in City's aeronautical engineering laboratory for sea lion simulations, the researchers have mapped out the typical signatures used by sea lion whiskers to detect such vortices, which signal whether prey has swum into a region and allows the animal to track the path of their prey. They then transferred this idea to arrays of bio-inspired optical flow sensors that are submersible, capable of remotely monitoring vortices passing over the riverbed, and can detect strong events triggering erosion processes.

Researchers at City: Professor Christoph Bruecker, Muthukumar Muthurangilam, Raphael Glick

Engagement



Contributing to the UN's Practical Guidance for the Sustainable Ocean Principles project

Target 14.7: Increase the economic benefits from sustainable use of marine resources

Jason Chuah, Professor of Commercial and Maritime Law at The City Law School, is an expert consultant to the Sustainable Shipping Guidance published by the UN Global Compact as part of its Practical Guidance for the Sustainable Ocean Principles project.

The Guidance is to be used by the relevant industries as a due diligence tool and to inform their decisions. It also enables policymakers and civil society organisations better to understand the challenges, opportunities, regulations and standards of the sector. Professor Chuah's contribution highlights how the Principles of Sustainable Shipping could be adopted, applied and monitored in a properly practical and industry-relevant manner.



Engaging with nature on campus

Target 15.5: Protect biodiversity and natural habitats

City has been supporting London's bee populations for several years, including managing our own beehives. This year, as well as continuing our weekly beekeeping sessions for students and staff, we invited the local community to join us for the highlight of the beekeeping calendar. Our annual honey harvest event was open to all, with a special emphasis on educating children about the important role of bees in our ecosystem and giving them hands-on experience of the process. Our students have also been raising awareness of bee- and biodiversity-related issues through the newly formed Bee Society.

This year, we enjoyed our first harvest from our walled garden. Students and staff learned how to tend edible plants at our weekly sessions and monthly workshops and produced a vast array of produce.

also supports
Global Goal 4



The City beehives are located on the roof of Tait building

Governance



ISO 14001 certification

Target 15.5: Protect biodiversity and natural habitats

City's environmental management system has been accredited to ISO 14001 since 2014. The management system, which covers all buildings and institutional operations, was recertified to the most recent version of the standard in October 2019, following a successful external audit. Our management system ensures we remain legally compliant, are continually improving our sustainability performance and embedding environmental management practices across the institution.





Goal 16: Peace, Justice and Strong Institutions

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Research

Building community capacity through Peace and Development Committees in Colombia

Target 16.7: Ensure responsive, inclusive and representative decision-making

This project is led by Professor Amit Nigam at the Business School (formerly Cass) and is a collaboration with the Universidad de los Andes in Bogotá, Colombia. It looks at how Peace and Development Committees (PDCs) develop communities' collective capacity to advance goals that will allow them to lead better lives. The research examines two PDCs in regions of Colombia impacted by violent conflict. Findings from the research are fed back to the PDCs to help them improve their effectiveness, benefiting people living in post-conflict communities.

Researchers at City: Professor Amit Nigam

Addressing the mistreatment of asylum seekers

Target 16.B: Promote and enforce non-discriminatory laws and policies

Research by Dr Ioannis Kalpouzos at The City Law School is rethinking crimes against humanity and their application to the mistreatment of asylum seekers. It has led the Stanford International Human Rights Clinic to develop a submission to the International Criminal Court on the treatment of asylum seekers by Australia, and the UN Special Rapporteur to frame her Special Report on the unlawful deaths of asylum seekers around the research and to adopt the research's recommendations.

Researchers at City: Dr Ioannis Kalpouzos

also supports
Global Goal 10

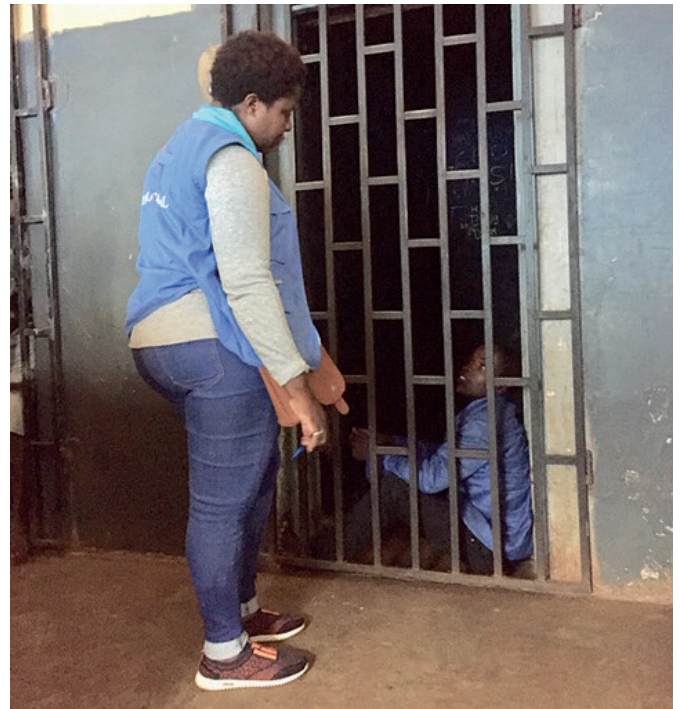


Supporting lawyers defending death penalty cases around the world

Target 16.3: Promote the rule of law and ensure equal access to justice

Founded in 2015, the Death Penalty Research Clinic is an international research collaboration which supports strategic legal challenges made on behalf of death row prisoners in courts around the globe. The clinic, led by The City Law School's Nikki Walsh, has allowed Bar students to support urgent casework in Africa, South Asia and the Caribbean.

Researchers at City: Nikki Walsh



PASI paralegal advises a suspect detained at Zomba Police Station, Malawi

Promoting access to justice for pre-trial detainees in Malawi

Target 16.3: Promote the rule of law and ensure equal access to justice

Malawi is one of the world's poorest nations. The scarcity of legal aid attorneys (20 serving 14,000 prisoners nationwide) means high levels of unconvicted prisoners entitled to release on bail, and often charged with minor offences, are trapped in pre-trial detention for months or years without access to a lawyer or judge. This has severe repercussions in a country where half the population lives below the international poverty line and Malawi's squalid prisons are described by human rights monitors as "life-threatening".

The Malawi Prison Bail Project was conceived by The City Law School's Nikki Walsh and Professor Nigel Duncan, to work alongside Malawian grassroots NGO, Paralegal Advisory Service Institute (PASI) and local criminal attorneys Ian Twea and Patrick Chigwuo, to strengthen legal capacity. The project upskilled 15 paralegals to assist prisoners in prison camp court hearings, leading to a doubling of successful bail releases across the whole of Malawi within weeks and ongoing impact since.

Researchers at City: Nikki Walsh, Professor Nigel Duncan

Education

MA International Politics and Human Rights

Target 16.7: Ensure responsive inclusive and representative decision-making

This course is for students who want to explore international politics and human rights more widely and then drill down to specialise their knowledge. The MA is designed to give students the chance to create their own questions about the way the world works – and to shape arguments where they feel it doesn't. Some of the questions the course poses include:

- Do human rights offer universal protections, or do they provide ideological cover for neo-imperialist powers?
- Can human rights provide protection to individuals in a way that supersedes the nation-state, or do they serve the interests of powerful states?
- Should human rights be concerned with the minimalist needs of security and subsistence, or should they aspire to grander visions of global justice?

Continuing Professional Development: Anti-Money Laundering and Counter Terrorism Financing course

Target 16.4: Combat organised crime and illicit financial and arms flows

This professional development course gives individuals an understanding of money laundering and encourages discussion on how and why it occurs. The course also helps professionals to develop their knowledge on substantive offences (Section 327 - 329 Proceeds of Crime ACT 2002), the Regulatory Framework, the FCA Office for the Professional Body Anti-Money Laundering Supervision (OPBAS), the Supervisory Bodies & Reporting Entities and SARS (Suspicious Activity Reporting).

also supports
Global Goal 10 

Engagement

Pursuing legal guarantees for the safety and independence of journalists

Target 16.10: Ensure public access to information and protect fundamental freedoms

Dr Carmen Draghici's research has shaped and supported international media NGOs' lobbying agenda on the protection of journalists. Her research-based conference papers have raised awareness of the legal gaps in the international

protection of journalists and crystallised the need to make the case for a dedicated treaty with its own enforcement machinery.

Thanks to the impact of Dr Draghici's work, campaigning for such an instrument became a priority for the International Federation of Journalists (IFJ). Based on her expertise, the IFJ commissioned Dr Draghici to draft the text of a possible treaty, titled the International Convention on the Safety and Independence of Journalists and Other Media Professionals. This was subsequently adopted by IFJ and became the core of the campaign for improved legal safeguards impacting the policies and activities of further media NGOs as they joined the campaign and endorsed Dr Draghici's work.

The research also provided the IFJ with advocacy tools, impacting the launch of their global campaign for the adoption of the Convention in 2018. Dr Draghici has participated in global engagement activities with organisations such as the UN, where several Member States expressed interest in its adoption. Her work has shaped the campaign for journalists' rights, benefiting journalists worldwide raising awareness of the problem of violence against journalists and offering solutions to address the issue.

Pro bono law clinics

Target 16.3: Promote the rule of law and ensure equal access to justice

The City Law School has a proud history of providing a variety of *pro bono* clinics through community projects. This year, Covid-19 has triggered a wide range of short- and long-term social and legal issues for people in their everyday lives. Overcoming many hurdles during the first half of the academic year, we saw a rise in the number of student volunteers in the clinic and advised more clients, largely by building on the great work of existing partnerships with Travers Smith and Lewis Silkin.

In July 2020, City appointed our first Assistant Dean for Clinical Legal Education and Pro Bono who is working on several new projects with the Environmental Law Foundation and the Freedom Law Clinic. These projects will work to develop further initiatives to serve and engage our local community while also embedding a lifelong *pro bono* ethic within our students.

also supports
Global Goal 10 



Goal 17: Partnerships for the Goals

Strengthen the means of implementation and revitalize the global partnership for sustainable development

A strategy for greater internationalisation and impactful partnerships

Global engagement is about responding to a complex and globally interconnected world in which the major challenges can only be addressed through collaboration.

Central to City's approach to global engagement are its partnerships with universities around the world. These mutually beneficial relationships are forged with universities that share our commitment to making a difference to the world.

Our approach to global engagement is also built upon a commitment to the development of relationships with government, business, civil society and with our communities. Collectively, these partnerships provide opportunities for our students to develop the skills and attributes to be globally employable and make a positive change in the world. They also strengthen the depth and impact of our research, allowing our academics to develop solutions to some of the world's most pressing problems.

The following case studies are just a small selection that show how different parts of the University are working with partners in their respective fields to deliver on the Global Goals locally, nationally and internationally.

Local

- Partnering with British Land to increase coaching support to local community leaders during Covid-19

For over 30 years, the Centre for Charity Effectiveness (CCE) at the Business School (formerly Cass) has provided support, guidance and academic accreditation to non-profit leaders to drive significant change. The CCE has enhanced the performance of hundreds of organisations and thousands of individuals across the sector.

This collaborative, cross-sector approach is exemplified by CCE's work with British Land. Recognising that the Covid-19 crisis is an unprecedented and hugely demanding time for the voluntary sector, particularly for people leading smaller organisations, CCE and British Land have expanded their partnership, delivering a series of one-to-one coaching sessions for leaders at some of our closest local partners. This provides them with a safe space to explore the issues and dilemmas they are facing with a qualified and experienced coach who has direct experience of sector leadership. It also offers practical support, such as connections to other organisations and use of CCE's materials.

- Islington Sustainable Energy Partnership

The Islington Sustainable Energy Partnership (ISEP) is a network for organisations in the borough who want to reduce energy costs, cut carbon emissions and manage their environmental impacts. As a Steering Committee member, City supports the mission to promote sharing and learning between energy and sustainability professionals.

ISEP provides advice, events and resources, helps members get involved in local community projects and hosts local Sustainability Awards that recognise environmental achievement. In 2019/20, the partnership supported member organisations in reducing their carbon emissions by 15 per cent from the previous year.

National

- Working with the Obesity Policy Research Unit to promote wellbeing across the UK

Professor Corinna Hawkes is Director of the Centre for Food Policy at City and is also a co-investigator on the National Institute for Health Research (NIHR) Obesity Policy Research Unit, which works directly with the UK Department of Health and Social Care. The unit brings world-class expertise to essential work with children and young people, food policy, economic modelling and research on environment and behaviour change.

Its goal is to undertake research of the highest quality to support the Department of Health and Social Care (England) and its partners to combat the environments and systems that drive obesity; modify behaviours that encourage obesity; and reduce health inequalities and the consequences of obesity.



The Obesity Policy Research Unit works to reduce health inequalities

International

- The South Asia Network for Displacement and Development

The South Asia Network for Displacement and Development (SANDD) aims to bring together academic researchers, civil society organisations and community-based advocacy groups across the countries of South Asia, in promoting regional cooperation to study the challenges facing displaced and displacement-vulnerable communities. South Asia is one of the world's most vulnerable regions in terms of exposure to the triggers of forced displacement, climate change, conflict and top-down development strategies, yet there is little cooperation at the level of national governments.

The aim of SANDD is to stimulate bottom-up strategies to fill this gap. SANDD's present membership includes Afghan Human Rights and Development Organisation, Alliance for Social Dialogue (Nepal), Centre for Humanitarian Affairs (Sri Lanka), Civil Society Coalition for Climate Change (Pakistan), Mahanirban Calcutta Research Group (India) and Research Initiatives Bangladesh. City researchers Alice Mesnard, Liza Schuster and Saqib Jafarey facilitate the network. SANDD members bring together disciplinary perspectives from sociology, economics, political science, demography, cultural studies and legal studies, as well as many years of collective experience in community-based activism and advocacy.

- Partnering with Karolinska Institutet to develop understanding of best practice in Health Sciences

Led by Dr Lia Litosseliti (with the support of several School of Health Sciences (SHS) staff, including Dr Lars Eriksson, Petra Chipperfield, Dr Lucia Rocca-Ihenacho and Raf Benato), SHS has built a partnership with Karolinska Institutet in Sweden that has seen the steady exchange in recent years of researchers and students from both institutions.

Collaborative research projects have focused on areas of mutual interest in health care sciences, health services management and public health research. A successful student mobility exchange has increased postgraduate Nursing students' understanding of the strengths and limitations of different health systems – for example, through exposure to clinical practice in UK and Swedish hospital wards, emergency departments and the Ambulance service. The partnership expanded with the addition of a staff and undergraduate student exchange in Midwifery, as well as an agreement for a staff and student exchange in Optometry and Visual Science. Its aim is to build on SHS's outstanding reputation for applied and innovative healthcare research and training and Karolinska Institutet's position as one of the world's foremost medical universities, and to use the expertise available in both institutions to make a contribution to the improvement of human health and health provision globally.

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