# Bath Spa University 2019/20 Sustainability Report – SDG progress

#### Introduction

In the 2019/20 academic year, BSU launched its new Strategy 2030. This is a landmark document, which sets out our clear intention to "Think and Make the World Better". Our everdeveloping progress to become a more sustainable organisation at every level directly supports this aspiration and all elements of our 2030 Strategy.

In 2015, the UN published the Sustainable Development Goals (UN SDGs). Categorised under 17 headings, from poverty to partnership building, the SDGs set out an internationally agreed description of what a better, more sustainable world looks like, and provides guidance on how we might get there. This is unprecedented in the history of humanity, as is the unquestionable existential nature of the threats we face if we do not work together toward common sustainability goals. Hence, the contemporary importance and power of the UN SDGs should not be underestimated.

While unsurprisingly rather complex, the 17 SDGs offer us a widely agreed set of measures, against which we can chart our own sustainability journeys, while working together to achieve well defined, common goals. The HE sector has a key role to play in realisation of the SDGs. Across the World, HE institutions are adopting the Goals as a benchmark against which they can measure their individual and collective progress.

In 2019, BSU became a signatory to the SDG Accord, under which, we committed to aligning our activities to support progress towards the Goals, through our education, research and business activities.

Also in 2019, the Times Higher Education (THE) published the first Impact Ranking league table, which ranked participating world universities according to their contribution to the SDGs. In 2020, we made our first submission to the THE Impact Ranking and came somewhere round one third down the table in our first attempt.

Our most significant sustainability-related development during the 2019/20 academic year was our joint Climate Emergency Declaration, with our Students' Union. This was a public commitment to deliver on the Net-Zero carbon target, set out in our 2030 Carbon Reduction Management Plan.

During the development of this Declaration, it was agreed that we should look to the SDGs to develop a wider metric of our overall sustainability performance. Over the last year or so, we have been engaging widely and collecting data to develop an understanding of our current position and where progress can be made. This year's sustainability report is our first attempt to synthesise this into a report format, which we intend to continually develop over time.

Due to the unprecedented changes to our activities resulting from the Covid 19 lockdown, reporting on many of our usual metrics will not be possible, or indeed, meaningful. Hence, this report will focus more on policy and structural developments where appropriate.



# 17 Goals for People and Planet

The <u>Sustainable Development Goals</u> are a universal call to action to end poverty, protect the planet and improve the lives and prospects of everyone, everywhere. The 17 Goals were adopted by all UN Member States in 2015, as part of the <u>2030 Agenda for Sustainable</u> <u>Development</u> which set out a 15-year plan to achieve the Goals.

Today, <u>progress</u> is being made in many places, but, overall, action to meet the Goals is not yet advancing at the speed or scale required. 2020 needs to usher in a decade of ambitious action to deliver the Goals by 2030.

The world HE sector is in a unique position has a key role to play in widening engagement and accelerating action.

This report is a first attempt to capture Bath Spa's contribution to the Goals. It is by no means exhaustive as the mechanisms for understanding all the ways in which we contribute are not yet well developed. Many of our courses, research activities and partnerships directly address a number of Goals and may be referenced in multiple locations below. However, repetition will be kept to a minimum and only where significant crosscutting SDG overlap occurs.

Obviously, our activities are not distributed evenly across the SDGs and there are instances where we may have little or no impact. In others, we are really making a difference.

In this report, we set out each Goal, with the UN's description of the state of play and our response in terms of our Education, Research, Practice, and Partnerships. Descriptions are kept brief and readers are invited to dig deeper via hyperlinks if they wish to find out more.





### Goal 1: End poverty in all its forms everywhere

# The UN Says:

Globally, the number of people living in extreme poverty declined from 36 per cent in 1990 to 10 per cent in 2015. But the pace of change is decelerating and the COVID-19 crisis <u>risks</u> <u>reversing decades of progress</u> in the fight against poverty. <u>New research</u> published by the UNU World Institute for Development Economics Research warns that the economic fallout from <u>the global pandemic could increase global poverty by as much as half a billion people</u>, or 8% of the total human population. This would be the first time that poverty has increased globally in thirty years, since 1990.

More than <u>700 million people</u>, or 10 per cent of the world population, still live in extreme poverty today, struggling to fulfil the most basic needs like health, education, and access to water and sanitation, to name a few. The majority of people living on less than \$1.90 a day live in sub-Saharan Africa. Worldwide, the <u>poverty rate in rural areas is 17.2 per cent</u>—more than three times higher than in urban areas.

For those who work, having a job does not guarantee a decent living. In fact, <u>8 per cent</u> of employed workers and their families worldwide lived in extreme poverty in 2018. One out of five children live in extreme poverty. Ensuring social protection for all children and other vulnerable groups is critical to reduce poverty.

# Bath Spa's Response:

#### Education

Education is the single most effective way of reducing poverty across the world. It empowers people to prosper in their own lives and to contribute positively to societal and economic development. Education is what we do! At Bath Spa, we've been inspiring generations of teachers and education professionals since 1946. Many thousands of our graduates continue to educate people out of poverty both in the UK and across the world.

However, this is not where education's influence on poverty ends. Poverty exists in every nation and is driven by a wide range of political, economic and environmental factors. Understanding the context, nuance and interplay of these factors is key to tacking poverty in any given location. These issues are addressed in a number of courses at BSU, from a range of angles, either as core subjects within courses or within specific modules.

Table 1. BSU Courses that address SDG1: No Poverty.

Course	Module/Core	Level	Number of Graduates 2020
Business and Management	Module	BA	215*
Geography	Core	BSc	38
Global Development and Sustainability	Core	BSc	10
Philosophy and Ethics	Core	BA	17
Sociology	Core	BSc	23
Biological Sciences	Core	BSc	32
Environmental Humanities	Core	MA	2
Sustainability in Life and Work	Core	Various	151**

\* The degree to which students from Business and Management interact with concept of responsible production and consumption depends on the module choices they make. However, from 2021, the Sustainable Business module will become compulsory for all first year students.

\*\* Sustainability in Life and Work is an open module, which includes students from around 40 different courses. There will be some double counting as a result.

#### Research

Characterising our historic research output in terms of its contribution to the SDGs, collating this and developing a process for recording SDG contribution from future research is a current project. However, where appropriate, individual examples of relevant research are outlined in *"Research Focus"* below.

#### Research Focus:

<u>Waste, Water and Well-Being: Lessons from the Interface of Formal/Informal Urban Systems</u> <u>in Dharavi, Mumbai:</u> Dr Benjamin Parry, Bath Spa University

This project aims to provide an in-depth analysis of formal/informal infrastructural collisions in Mumbai. Dharavi, as one of the largest informal settlements in Asia, is a highly significant centre of employment and economic activity but is directly affected by many global challenges (e.g. poverty, plastic waste, water shortage, poor urban resilience, migration, housing and sanitation). Its recycling industry is entirely self-organised within the informal sector. Poor infrastructure creates air/groundwater pollution and significant land contamination. Reducing waste comes at the expense of human health and life. The research team seeks to examine urban development through the lens of the 'smart city from below', at the interface between the user-generated city and centralised urban planning systems. It looks to also address issues of trust, health protection, participation, ownership and ethics in the implementation of infrastructure-driven solutions, specifically at the points of collision between 'top down' development (e.g. the USD3.4bn Mumbai Metro 3) and the 'user-generated city' of the Dharavi workers colony.

#### Practice

One of the most effective ways a university can tackle poverty is to ensure access to higher education for students from disadvantaged backgrounds, represented in UK HE by the <u>Polar</u>

<u>quintile participation methodology</u>. Through our <u>Access and Participation Agreement</u> (A&PA), we are committed to engaging with students from low participation groups, to facilitate social mobility.

There are many measures of success, which are reported against in the A&PA. However, as an example, in 2017/18 (the latest reporting year), the proportion of students from POLAR4 Quintile 1 (the lowest participation areas) to attain a First or upper Second Class Degree at BSU was 81%, compared with the UK average of 74.6%.

The A&PA sets out the details of a bursary award scheme, which is based on family household income and POLAR4 distribution to increase participation from disadvantaged backgrounds. In 2018/19, 1,045 students from disadvantaged backgrounds were receiving financial support from BSU, which is around 13% of total student FTE.

#### Partnership

Bath Spa is an active partner in the B&NES Food Poverty Action Partnership and the Sustainable Food Partnership, both of which are directly addressing local poverty causes and resolutions.

We have also recently launched the <u>RESTART</u> Programme, in collaboration with Bath College. The core aim of RESTART is to ensure that the local community have an accessible opportunity to reskill in order to maximise employment and progression opportunities, whilst giving them the opportunity to maximise their chances of re-employment and/or employment in a new sector by focusing on 'in demand' skills from basic to advanced.



# Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture

### The UN says:

After decades of steady decline, the number of people who suffer from hunger – as measured by the prevalence of undernourishment – began to slowly increase again in 2015. Current estimates show that <u>nearly 690 million people are hungry</u>, or 8.9 percent of the world <u>population</u> – up by 10 million people in one year and by nearly 60 million in five years.

The world is not on track to achieve Zero Hunger by 2030. If recent trends continue, the number of people affected by hunger would surpass 840 million by 2030.

According to the World Food Programme, <u>135 million suffer from acute hunger</u> largely due to man-made conflicts, climate change and economic downturns. The COVID-19 pandemic could now double that number, putting an additional 130 million people at risk of suffering acute hunger by the end of 2020.

With more than <u>a quarter of a billion people potentially at the brink of starvation</u>, swift action needs to be taken to provide food and humanitarian relief to the most at-risk regions.

At the same time, a profound change of the global food and agriculture system is needed if we are to nourish the more than 690 million people who are hungry today – and the <u>additional</u> <u>2 billion people</u> the world will have by 2050. Increasing agricultural productivity and sustainable food production are crucial to help alleviate the perils of hunger.

# Bath Spa's Response:

#### Education

Food security and hunger are closely related to poverty and are very real in the lives of many in the UK, as well as in developing countries. Modern, intensive agricultural practice has been widely heralded as a solution to the problems of food security and malnutrition. However, while this has led to cheaper, more plentiful food for many, it has led to a worldwide destruction of biodiversity and a continual reduction in soil health and productivity and are therefore unsustainable over the long term. The causes and impacts of unsustainable agricultural practice, food security and hunger are addressed in our courses on Human Nutrition, Food with Nutrition, Global Development and Sustainability and within various Geography modules.

Course	Module/Core	Level	Number of Graduates 2020
Human Nutrition	Core	BSc	14
Food with Nutrition	Core	BSc	13
Geography	Core	BSc	38
Global Development and Sustainability	Core	BSc	10
Biological Sciences	Core	BSc	32
Philosophy and Ethics	Core	BA	17
Sociology	Core	BSc	23
Sustainability in Life and Work	Core	Various	151*

Table 2. BSU Courses that address SDG 2: Zero Hunger

\* Sustainability in Life and Work is an open module, which includes students from around 40 different courses. There will be some double counting as a result.

#### Research

Characterising our historic research output in terms of its contribution to the SDGs, collating this and developing a process for recording SDG contribution from future research is a current

project. However, where appropriate, individual examples of relevant research are outlined in *"Research Focus"* below.

#### **Research Focus:**

In their 2018 collaborative research paper <u>'Why do people use food banks?</u> A qualitative study of food bank users in an English city', Wainwright *et al.* explore the issues that drive people to foodbanks, their positioning in and relationship to the benefits system and the personal experiences of people using them. The authors findings highlight the key importance of food banks' autonomy from the State and the contrasting experience of people's positive personal experience of using food banks, compared to State welfare.

#### Practice

We have been a <u>FairTrade University</u> since 2012 and have achieved Silver Level in the Soil Association's <u>Food for Life certification</u> for our main food outlets. Our menus have a seasonal element and both vegetarian and vegan options are available daily.

We collect unwanted non-perishable foods throughout the academic year and in particular as the students leave for home at the end of term and distribute them to local food banks. Last year, we donated over 600 kg of food to the Fair Frome foodbank.

#### Partnership

Bath Spa is an active partner in the B&NES Food Poverty Action Partnership and the Sustainable Food Partnership.



# Goal 3: Ensure healthy lives and promote well-being for all at all ages

### The UN says:

Ensuring healthy lives and promoting well-being at all ages is essential to sustainable development. Currently, the world is facing a <u>global health crisis</u> unlike any other — COVID-19 is spreading human suffering, destabilizing the global economy and upending the lives of billions of people around the globe.

Before the pandemic, major progress was made in <u>improving the health of millions of</u> <u>people</u>. Significant strides were made in increasing life expectancy and reducing some of the common killers associated with child and maternal mortality. But more efforts are needed to fully eradicate a wide range of diseases and address many different persistent and emerging

health issues. By focusing on providing more efficient funding of health systems, improved sanitation and hygiene, and increased access to physicians, significant progress can be made in helping to save the lives of millions.

Health emergencies such as COVID-19 pose a global risk and have shown the critical need for preparedness. The United Nations Development Programme highlighted huge disparities in <u>countries' abilities to cope with and recover from the COVID-19 crisis</u>. The pandemic provides a watershed moment for health emergency preparedness and for investment in critical 21st century public services.

# Bath Spa's Response:

#### Education

Health and wellbeing, both physical and mental are addressed in our Human Nutrition, Food with Nutrition and a range of Psychology, Psychotherapy and Counselling courses. In 2018, 168 students left Bath Spa with qualifications that enabled them to work in the health sector, particularly in mental health.

Course	Module/Core	Level	Number of Graduates 2020
Human Nutrition	Core	BSc	14
Food with Nutrition	Core	BSc	13
Geography	Core	BSc	38
Psychology	Core	BSc/CHE/DipHE	97
Biological Sciences	Core	BSc	32
Counselling and Psychotherapy	Core	MA/PGCert/PGDip	17
Sustainability in Life and Work	Core	Various	151*

Table 3. BSU Courses that sddress SDG 3: Good Health and Wellbeing

\* Sustainability in Life and Work is an open module, which includes students from around 40 different courses. There will be some double counting as a result.

#### Research

Characterising our historic research output in terms of its contribution to the SDGs, collating this and developing a process for recording SDG contribution from future research is a current project. However, where appropriate, individual examples of relevant research are outlined in *"Research Focus"* below.

#### **Research Focus:**

Research carried out by Dr Jermaine Ravalier and Dr Charlotte Boichat; <u>UK Social Workers:</u> <u>Working Conditions and Wellbeing (Aug 2018)</u>, has been used as evidence to develop UK policy on the working conditions of social workers to safeguard them and the vulnerable members of society that they support.

#### Practice

We provide comprehensive physical and mental health support for students and staff.

### Partnership

We have partnered with <u>Fairfield Health Centre</u> to provide free health and wellbeing support for our students.





# Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

# The UN says:

Education enables upward socioeconomic mobility and is a key to escaping poverty. Over the past decade, major progress was made towards increasing access to education and school enrollment rates at all levels, particularly for girls. Nevertheless, <u>about 260 million children</u> <u>were still out of school</u> in 2018 — nearly one fifth of the global population in that age group. And more than half of all children and adolescents worldwide are <u>not meeting minimum</u> <u>proficiency standards</u> in reading and mathematics.

In 2020, as the COVID-19 pandemic spread across the globe, a majority of countries announced the temporary closure of schools, impacting more than 91 per cent of students worldwide. By April 2020, close to <u>1.6 billion children and youth were out of school</u>. And nearly <u>369 million children who rely on school meals</u> needed to look to other sources for daily nutrition.

Never before have so many children been out of school at the same time, disrupting learning and upending lives, especially the most vulnerable and marginalised. The global pandemic has far-reaching consequences that may jeopardize hard won gains made in improving global education.

# Bath Spa's Response:

#### Education

As a higher education institution, Goal 4 is central to our mission. This is particularly so for us as the School of Education, which has been inspiring generations of educators since 1946, forms a major component of the University.

Table 4. BSU Courses that address SDG 4: Quality Education

Course	Module/Core	Level	Number of Graduates
			2020

Early Childhood Studies	Core	BA (Hons)	16
Education (various)	Core	BA (Hons)	136
Education (various)	Core	MA	42
Education (various)	Core	PGCE/PGDip	451
Education	Core	PhD	3
Sustainability in Life and Work	Core	Various	151*

\* Sustainability in Life and Work is an open module, which includes students from around 40 different courses. There will be some double counting as a result.

#### Research

Characterising our historic research output in terms of its contribution to the SDGs, collating this and developing a process for recording SDG contribution from future research is a current project. However, where appropriate, individual examples of relevant research are outlined in *"Research Focus"* below.

#### **Research focus:**

Exploring forest and outdoor experiences in different cultural contexts to establish a shared understanding.

This research seeks to establish a critical understanding of the concept and provision of forest and outdoor experiences, using three case studies – from the United States, England and Denmark. The project takes an exploratory multiple case study approach, with each researcher presenting a separate single-case study. Students on the Early Childhood Studies programmes, from both the undergraduate and postgraduate courses, have undertaken fieldwork as co-researchers.

#### Practice

Education is our core business. In 2019/20, we produced over 2,300 Graduates and Post-Graduates, which was down on the previous years, which were closer to 3,000. This is in addition to the qualifications awarded and education provided through our many academic partnerships.

#### Partnership

BSU leads and collaborates in education partnerships across the Globe, including partnerships with other education providers in the South West UK, such as Bath College and Weston College.

We are the lead provider for the <u>Teach First Leadership Programme</u> in the South West. We are the lead university for Teach First in the South West region, responsible for the delivery of the Postgraduate Diploma in Education (PGDE) academic award for Teach First Cymru, working with Cardiff Metropolitan University who are the lead university for Teach First Cymru.

The <u>Development of a Refugee Teacher Certification Programme Enabled through Blended</u> <u>Learning in Egypt (ReTeCp)</u> project is funded through the EU Erasmus+ programme, and will eventually give refugee teachers access to higher education through a postgraduate diploma focusing on refugee-centred teaching methods and practices.



# Goal 5: Achieve gender equality and empower all women and girls

# The UN says:

Gender equality is not only a fundamental human right, but a necessary foundation for a peaceful, prosperous and sustainable world.

There has been <u>progress</u> over the last decades: More girls are going to school, fewer girls are forced into early marriage, more women are serving in parliament and positions of leadership, and laws are being reformed to advance gender equality.

Despite these gains, many <u>challenges</u> remain: discriminatory laws and social norms remain pervasive, women continue to be underrepresented at all levels of political leadership, and 1 in 5 women and girls between the ages of 15 and 49 report experiencing physical or sexual violence by an intimate partner within a 12-month period.

# Bath Spa's Response:

#### Education

Gender equality is deeply engrained in our policy and behaviour at Bath Spa University. The degree to which issues of gender equality and its impacts on personal life, business and society are directly addressed across our taught curriculum, is currently being researched. However, it is already clear that gender equality in some form features across all of our Education, Sociology and Psychology courses and as an explicit component in five of our Business and Management modules, Including; Governance and Risk Management, Corporate Law, Cross Cultural Management and Design Thinking for Enterprise.

Course	Module/ Core	Level	Number of Graduates 2020
Early Childhood Studies	Core	BA (Hons)	16
Education (various)	Core	BA/MA/ PGCE/PGDip/ PhD	632
Business and Management	Module	BA/CHE/MA	215*
Sociology	Core	BSc (Hons)/ CHE	23
Philosophy and Ethics	Core	BA (Hons)	17

Psychology	Module	BSc/CHE/DipHE	97
Counselling and Psychotherapy	Module	MA/PGDip/PGC	17
Human Geography	Core	BA	4
Sustainability in Life and Work	Core	Various	151**

\* The degree to which students from Business and Management interact with concept of responsible production and consumption depends on the module choices they make. However, from 2021, the Sustainable Business module will become compulsory for all first year students.

\*\* Sustainability in Life and Work is an open module, which includes students from around 40 different courses. There will be some double counting as a result.

#### Research

Characterising our historic research output in terms of its contribution to the SDGs, collating this and developing a process for recording SDG contribution from future research is a current project. However, where appropriate, individual examples of relevant research are outlined in *"Research Focus"* below.

#### Research Focus:

If gender equality is to be truly achieved in the UK, it is crucial that young women from all ethnic and social backgrounds have access to the workplace when leaving education. Understanding the workplace aspirations of young women in education is a key component of tailoring careers advice and support in this crucial phase of their development. In her 2020 report for the Aldgate and Allhallows Foundation, "A longitudinal study of young women's transitions in Tower Hamlets in an age of austerity" Professor Charlotte Chadderton, explores the workplace aspirations of young women in Tower Hamlets, predominantly from Bangladeshi backgrounds. Amongst her many findings, Prof Chadderton identified that "much of the schoolbased careers input, such as careers interviews and work experience, seemed to guide the pupils, explicitly and implicitly towards more feminised positions and away from professional/managerial work towards skilled/semi-skilled work". Prof Chadderton recommended a range of improvements to the careers support process, which are to inform policy changes in the Tower Hamlets Borough.

#### Practice

Bath Spa strongly upholds an <u>Equality Policy</u>, which sets out to eliminate all forms of discrimination, including gender-based, amongst staff, students, customers, partners and people employed by the University from external organisations.

We monitor gender-related pay disparities though our <u>bi-annual equal pay review</u> and have on-going targets and programmes to eliminate anomalies. In 2019/20, 51% of senior academic posts were occupied by female staff members and our most senior leader is a woman.

Our student cohort is heavily female-biased. In 2020, over 70% of our Degrees were awarded to women.

#### Partnership

No partnerships that directly address issues related to gender equality have so far been identified.





# Goal 6: Ensure availability and sustainable management of water and sanitation for all

# The UN Says:

While substantial progress has been made in increasing access to clean drinking water and sanitation, billions of people, mostly in rural areas, still lack these basic services. Worldwide, one in three people do not have access to safe drinking water, two out of five people do not have a basic hand-washing facility with soap and water, and more than 673 million people still practice open defecation.

The COVID-19 pandemic has demonstrated the critical importance of sanitation, hygiene and adequate access to clean water for preventing and containing diseases. Yet billions of people still lack safe water sanitation, and funding is inadequate.

# Bath Spa's response:

Unlike many parts of the world, clean water and sanitation are a given in a country like the UK and are provided for all by utility companies, through government regulation. Nevertheless, water stress, sewage-related pollution and spill risks are real issues in the UK and for BSU. In addition, there are wide-ranging opportunities to address clean water and sanitation in our curriculum and research output.

### Education

Issues related to clean water and sanitation are addressed in the following courses.

Course	Module/Core	Level	Number of Graduates 2020
Geography	Core	BSc	38
Global Devmt and Sustainability	Core	BSc	10
Environmental Management	Core	MSc	6
Environmental Science	Core	BSc	9
Sustainability in Life and Work	Core	Various	151*

\* Sustainability in Life and Work is an open module, which includes students from around 40 different courses. There will be some double counting as a result.

#### Research

Characterising our historic research output in terms of its contribution to the SDGs, collating this and developing a process for recording SDG contribution from future research is a current

project. However, where appropriate, individual examples of relevant research are outlined in *"Research Focus"* below.

#### **Research Focus:**

We have not yet identified any research activities that directly address clean water and sanitation as the main focus, in a context that supports this SDG.

#### Practice

We have automated metering on the water supplies to all our buildings to enable us to identify and prevent leakage as quickly as possible. We routinely measure water consumption against student and staff FTE and set targets for reduction. Water efficiency standards are used in the specification of water consuming infrastructure in all new builds and refurbishments.

In 2019, our leak detection and remediation efforts reduced consumption at Newton Park by over 14,000 m<sup>3</sup>, which reduced overall water consumption per FTE by 10% to 8.21 m<sup>3</sup>/y. This work continues in an effort to use water resources more responsibly and to reduce associated costs. 2019/20 consumption data are skewed due to Covid, which has reduced consumption in most locations and the opening of the new Locksbrook Road campus, which has increased consumption almost by the same amount. Increases in the period 2016-18 were due to the addition of the Gardens and Green Park House accommodation units, with a total of approx. 1000 additional students living in BSU accommodation.

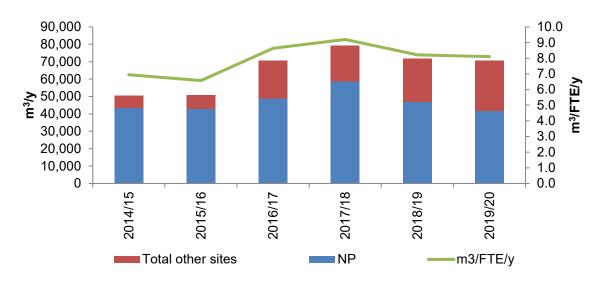


Figure 1. Water consumption 2014/15 to 2019/20.

To ensure that our business activities, particularly transport-related, do not cause pollution of our local water sources, we have robust spill management processes in place, with trained responders and spill response materials on hand. Our main car park areas have rainwater collection, with oil separators, which are emptied and made safe through hazardous waste processes.

#### Partnership

While some of our research partnerships, such as the <u>RESPiRES</u> project and those within the <u>Hazard Risk and Disaster Research Group</u> deal with water-related issues, in the context of climate change and social resilience, we have not yet been able to identify partnerships that directly address issues of sanitation and potable water supply at a practical level.





# Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all

# The UN says:

The world is making progress towards Goal 7, with encouraging signs that energy is becoming more sustainable and widely available. Access to electricity in poorer countries has begun to accelerate, energy efficiency continues to improve, and renewable energy is making impressive gains in the electricity sector.

Nevertheless, more focused attention is needed to improve access to clean and safe cooking fuels and technologies for 3 billion people, to expand the use of renewable energy beyond the electricity sector, and to increase electrification in sub-Saharan Africa.

# Bath Spa's response:

#### Education

Renewable energy is not a widely-addresses topic in the BSU curriculum. However, the subject is explored in certain core Environmental Science, Geography and Global Development modules.

Course	Module/Core	Level	Number of Graduates 2020
Geography	Core	BSc	38
Global Development and	Core	BSc	10
Sustainability			
Environmental Management	Core	MSc	9
Environmental Science	Core	BSc	7
Sustainability in Life and Work	Core	Various	151*

\* Sustainability in Life and Work is an open module, which includes students from around 40 different courses. There will be some double counting as a result.

#### Research

Characterising our historic research output in terms of its contribution to the SDGs, collating this and developing a process for recording SDG contribution from future research is a current project. However, where appropriate, individual examples of relevant research are outlined in *"Research Focus"* below.

#### **Research Focus:**

No research has so far been identified that directly addresses clean affordable energy.

#### Practice

Our approach since our first Carbon Reduction Management Plan in 2010, has been to minimise energy use, install renewables where possible and purchase renewable energy, in that order of priority. Over the last ten years, we have invested heavily in energy efficiency and carbon reduction activities and have reduced our energy intensity by around 43% from 290 to 164kWh/m<sup>2</sup> and carbon intensity by over 63% from 92 to 33.5 kg  $CO_2/m^2$ . These figures exclude 2020, which was negatively skewed due to Covid-related impacts.

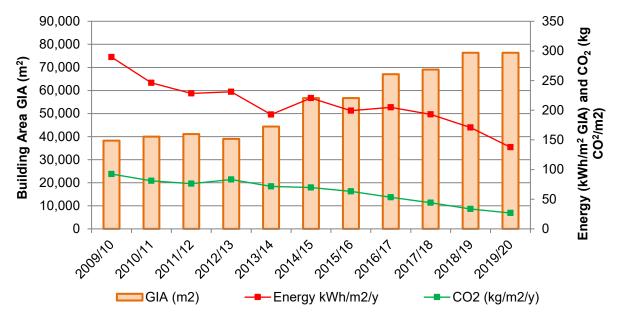


Figure 2. Building floor area (Gross Internal Area-GIA  $m^2$ ) (columns), energy intensity (KWh/m<sup>2</sup>) (red line) and carbon intensity (t CO<sub>2</sub>/m<sup>2</sup>) (green line).

Since 2016, we have procured 100% renewable electricity, certified through the REGO (Renewable Energy Guarantees of Origin) chain of custody system. Twenty percent of our electricity is supplied via a long-term Power Purchase Agreement, directly from a wind operator. This supports the on-shore wind sector directly and improves the cost-effectiveness of further investment in new on-shore wind development. This was the first PPA of its kind in the UK HE sector and Bath Spa were one of a small group of SW universities, together with The Energy Consortium behind its development.

Approximately 50% of the heat consumed on our main Newton Park campus is from locally sourced, renewable woodchip, which is certified and sustainable in origin and comes from commercial forestry in the Southwest UK. The plan is for the vast majority of our heat to be provided by renewable electricity by 2030.

We have approximately 110 kw of photovoltaic panels installed across the University, which produces in the region of 100,000 kWh of clean electricity per year. We are hoping to extend this but are currently constrained by Local Authority planning restrictions.

#### Partnership

Bath Spa partner with a number of universities across the South West and with our energy services provider to support the expansion of renewable energy through our collective purchasing power. As a group, we have been instrumental in forcing the expansion of EDF's non-nuclear renewable portfolio and in the development of the first <u>Power Purchase</u> <u>Agreement</u> for renewable energy in the UK.





Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

# The UN says:

Sustained and inclusive economic growth can drive progress, create decent jobs for all and improve living standards.

<u>Even before the outbreak of COVID-19</u>, one in five countries – home to billions of people living in poverty – were likely to see per capita incomes stagnate or decline in 2020. Now, the <u>economic and financial shocks</u> associated with COVID-19—such as disruptions to industrial production, falling commodity prices, financial market volatility, and rising insecurity—are derailing the already tepid economic growth and compounding heightened risks from other factors.

# Bath Spa's response:

Our commitment to contributing towards sustainable economic development is set out in the second pillar of our Strategy 2030 - <u>Enterprise</u>. Our new and developing relationships with our regional Local Authorities, the West of England Combined Authority and a growing number of

South West businesses, led by Prof Andy Salmon, in the newly created post of Pro Vice-Chancellor External, responsible for developing Social and Creative Enterprise.

As a university, it is our core purpose to provide students with the knowledge and skills necessary for them to prosper and drive sustainable economic growth. This is especially so with students from our School of Business and Management, and of course our School of Education, but the purpose of all our courses is to enable students to prosper in all senses of the word.

#### Education

Course	Module/Core	Level	Number of Graduates 2020
All	Core	Undergrad	1,426
All	Core	Post Grad	848

#### Research

Characterising our historic research output in terms of its contribution to the SDGs, collating this and developing a process for recording SDG contribution from future research is a current project. However, where appropriate, individual examples of relevant research are outlined in *"Research Focus"* below.

#### Research Focus:

Decent work and economic growth in the modern context is reliant on firms improving efficiency to drive productivity. The work of Antonio Revilla in the Bath Business School, in his 2019 paper "*External Knowledge Sourcing and Firm Innovation Efficiency*", explores this and characterises a sector-specific inverted "U" relationship. <u>Asimakopoulos, G, Revilla, A.J and Slavova, K (2019) 'External knowledge sourcing and firm innovation efficiency.' *British Journal of Management*, 31 (1). pp. 123-140. ISSN 1045-3172</u>

#### Practice

As one of the top 5 employers in the region, we have a significant impact on the local economy. All our staff are paid above the living wage and benefit from a generous, health and wellbeing protections and a defined-benefit pension in retirement. University services are provided from in-house staff and we do not outsource to save cost on staff wages. We work closely with unions representing our workforce and support union membership.

#### Partnership

We have a wide and growing range of partnerships with regional businesses, Local Authorities, education providers and international organisations, which is led by Prof Andy Salmon.

Amongst these partnerships recently launched the <u>RESTART</u> Programme, in collaboration with Bath College. The core aim of RESTART is to ensure that the local community have an

accessible opportunity to reskill in order to maximise employment and progression opportunities, whilst giving them the opportunity to maximise their chances of re-employment and/or employment in a new sector by focusing on 'in demand' skills from basic to advanced.

# **9** INDUSTRIES, INNOVATION AND INFRASTRUCTURE



# Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

# The UN says:

Inclusive and sustainable industrialization, together with <u>innovation and infrastructure</u>, can unleash dynamic and competitive economic forces that generate employment and income. They play a key role in introducing and promoting new technologies, facilitating international trade and enabling the efficient use of resources.

However, the world still has a long way to go to fully tap this potential. Least developed countries, in particular, need to accelerate the development of their manufacturing sector if they are to meet the 2030 target, and scale up investment in scientific research and innovation.

Innovation and technological progress are key to finding lasting solutions to both economic and environmental challenges, such as increased resource and energy-efficiency. Globally, <u>investment in research and development</u> (R&D) as a proportion of GDP increased from 1.5 per cent in 2000 to 1.7 per cent in 2015 and remained almost unchanged in 2017, but was only less than 1 per cent in developing regions.

# Bath Spa's response:

As a University specialising in the Liberal Arts, industrial growth and infrastructure development are at the periphery of our activity.

University contribution to this Goal is generally measured in terms of commercial spin-offs and engineering/hard science graduates. While we are not a STEM-focused institution, our science and mathematics PGCE students will be laying the foundations for future engineers and scientists and the budding entrepreneurs and business professionals from our Bath School of Business will, in many instances, be playing their part in sustainable industrial growth.

Our Global Development and Sustainability Graduates will enter the field of global development with a well-rounded understanding of the key role of industrialisation in economic

development and the dire consequences of this taking place without sustainability at the forefront.

#### Education

Course	Module/Core	Level	Number of Graduates 2020
Business and Management	Core	BA/MA	215
Education (STEM)	Core	PGCE	60
Computing	Core	BSc/CHE	31
Global Development and Sustainability	Core	BSc	10
Sustainability in Life and Work	Core	Various	151*

\* The degree to which students from Business and Management interact with concept of responsible production and consumption depends on the module choices they make. However, from 2021, the Sustainable Business module will become compulsory for all first year students.

\*\* Sustainability in Life and Work is an open module, which includes students from around 40 different courses. There will be some double counting as a result.

#### Research

Characterising our historic research output in terms of its contribution to the SDGs, collating this and developing a process for recording SDG contribution from future research is a current project. However, where appropriate, individual examples of relevant research are outlined in *"Research Focus"* below.

#### **Research Focus:**

No research that directly addresses this SDG has yet been identified

#### Practice

Our business practices do not extend to the development of industrial infrastructure.

#### Partnership

Our partnerships do not extend to the development of industrial infrastructure.



### Goal 10: Reduce inequality within and among countries

#### The UN says:

Reducing inequalities and ensuring no one is left behind are integral to achieving the Sustainable Development Goals.

Inequality within and among countries is a persistent cause for concern. Despite some positive signs toward reducing inequality in some dimensions, such as reducing relative income inequality in some countries and preferential trade status benefiting lower-income countries, <u>inequality still persists</u>.

Inequalities are also deepening for <u>vulnerable populations</u> in countries with weaker health systems and those facing existing humanitarian crises. Refugees and migrants, as well as indigenous peoples, older persons, people with disabilities and children are particularly at risk of being left behind. And <u>hate speech</u> targeting vulnerable groups is rising.

# Bath Spa's response:

Bath Spa has in place a range of policies and procedures to ensure equality for all is at the heart of our practice. This ranges from our recruitment processes to our workplace activities and runs through our research and education. As with Goal 1 - No Poverty, education is key to reducing inequality, both within and between nations.

#### Education

Inequality is addressed from many angles in a broad spectrum of the Bath Spa curriculum, many of which are captured in Table 5. In addition, our <u>Global Citizenship Programme</u> offers students on any degree course to broaden their horizons, partake in international exchange programmes and to explore issues of global sustainability and community.

In addition to the courses detailed in Table 5, Inequality is addressed in relation to food production and biodiversity loss in specific modules in the School of Sciences.

Our Access and Participation Statement sets out a range of measures to reduce inequality by widening access to university education for underrepresented groups. This is a key measure that universities can take to reduce inequality in the UK.

Course	Module/Core	Level	Number of Graduates 2020
Early Childhood Studies	Core	BA (Hons)	16
Education (various)	Core	BA/MA/PGCE/PGDip	632
Business and Management	Module	BA/CHE/MA	215**
Sociology	Core	BSc (Hons)/ CHE	23
Philosophy and Ethics	Core	BA (Hons)	17
Human Geography	Core	BA	4
Global Dev'mt and Sustainability	Core	BA	10
Environmental Management	Core	MSc	9
Sustainability in Life and Work	Core	Various	151*

Table 5. Courses that directly address issues of inequality, its causes and implications

\* The degree to which students from Business and Management interact with concept of responsible production and consumption depends on the module choices they make. However, from 2021, the Sustainable Business module will become compulsory for all first year students.

\*\* Sustainability in Life and Work is an open module, which includes students from around 40 different courses. There will be some double counting as a result.

#### Research

Characterising our historic research output in terms of its contribution to the SDGs, collating this and developing a process for recording SDG contribution from future research is a current project. However, where appropriate, individual examples of relevant research are outlined in *"Research Focus"* below.

#### **Research Focus:**

Widening participation in Higher Education across the world is a key step in reducing inequality. In his chapter "*Encouraging equitable access to higher education in Bogotá*. *Colombia: a case study of an innovative dual-enrolment project*" Nick Sorensen, Associate Dean, School of Education, explores the success of the dual-enrolment approach. Nick and his co-author Laura Gomez Bermeo, find that "such projects offer a practical realization of the aspirations of Education 2030 by ensuring that more men and women, regardless of their social status, have the opportunity to progress on to higher education". Dual enrolment strategies are now becoming widely used to reduce inequality in access to Higher Education in many countries.

#### Practice

In addition to the research and partnership examples outlined in this chapter, Bath Spa has used its wealth of expertise to set out a forward-thinking and comprehensive approach to increasing participation from underrepresented groups and monitoring success, through its <u>Access & Participation Plan</u>.

We value diversity and we recognise that different people bring different ideas, knowledge and culture, and that difference can bring strength, creativity and innovation. We believe that discrimination or exclusion based on individual characteristics and circumstances, represents a waste of talent and a denial of opportunity for self-fulfilment. To ensure that equality is at the heart of how we behave in the work place, we operate according to a comprehensive Equality Policy.

We also believe strongly in pay equality between male and female staff. We monitor and <u>report</u> <u>publicly</u> on our performance.

#### Partnership

Bath Spa is a leader in widening participation in HE, which is a key measure in reducing inequality. In partnership with Bath University, Annette Hayton, University of Bath and Dr Andrew Bengry, Bath Spa University have developed a methodology for measuring the efficacy of widening participation measures, which is now widely used under the <u>NERUPI</u> partnership. NERUPI is a community of practice for those seeking to reduce inequalities in higher education access, participation and progression, with over 60 member organisations. we are able to share our expertise and explore new approaches to evaluating the impact of interventions in this complex and evolving area.





# Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable

# The UN says:

The world is becoming increasingly urbanized. Since 2007, <u>more than half the world's</u> <u>population has been living in cities</u>, and that share is projected to rise to 60 per cent by 2030.

Cities and metropolitan areas are powerhouses of economic growth—contributing about 60 per cent of global GDP. However, they also account for about 70 per cent of global carbon emissions and over 60 per cent of resource use.

Rapid urbanization is resulting in a growing number of slum dwellers, inadequate and overburdened infrastructure and services (such as waste collection and water and sanitation systems, roads and transport), worsening air pollution and unplanned urban sprawl.

# Bath Spa's response:

As a true social enterprise, Bath Spa University plays an active role in developing the sustainability of our home City of Bath in many ways including for instance; through partnerships with Local Authorities, funding of arts and heritage, public access to our grounds and facilities, provision of lifelong learning opportunities and through our sustainable travel initiatives. We are in the process of formalising our status as an Excellent Social Enterprise through the <u>Social Enterprise CIC</u> accreditation scheme, where we hope to achieve Gold standard in the near future.

#### Education

Table 6. Courses in which the content contributes to the development and maintenance of sustainable cities and communities.

Course	Module/Core	Level	Number of Graduates 2020
Business and Management	Module	BA/CHE/MA	215*
Sociology	Core	BSc (Hons)/ CHE	23
Philosophy and Ethics	Core	BA (Hons)	17
Geography	Core	BA	38
Criminology	Core	BSc/CHE	67
Heritage Management	Core	MA	15
Global Devmt and Sustainability	Core	BA	10
Sustainability in Life and Work	Core	Various	151**

\* The degree to which students from Business and Management interact with concept of responsible production and consumption depends on the module choices they make. However, from 2021, the Sustainable Business module will become compulsory for all first year students.

\*\* Sustainability in Life and Work is an open module, which includes students from around 40 different courses. There will be some double counting as a result.

#### Research

Characterising our historic research output in terms of its contribution to the SDGs, collating this and developing a process for recording SDG contribution from future research is a current project. However, where appropriate, individual examples of relevant research are outlined in *"Research Focus"* below.

#### **Research Focus:**

Led by Dr Ian Thornhill from the School of Science, The <u>RESPIRES</u> Project (*Resilient People, Resilient Ecosystems in Smart Cities*) is a collaboration between research teams in the UK and Mexico. Using social-ecological systems thinking to promote sustainable smart cities, RESPIRES aims to develop an understanding of the role of blue spaces in sustainable cities and the health and wellbeing of their inhabitants.

#### Practice

The ways in which we carry our business activities and relationships with our neighbouring communities, to contribute to the sustainability of our local City region are too many to list in this report. However, some examples include; considerable funding for local arts and heritage organisations; partnerships with Local Authorities, and commerce groups.

As part of our ISO14001 process, we hold and review annually an "Interested Parties Register", which records our relationships with organisations, communities and individuals that might be impacted by our operations.

#### Partnership

We are part of many partnerships, which contribute to the sustainability of our local region and its communities. Some, such as the Student Community Partnership (SCP) have been running for many years, others, such as the RESTART partnership are new.

The <u>SCP</u> is a partnership between Bath Spa University, the University of Bath, our respective Students' Unions and B&NES. The partnership works with students from both universities, the Local Authority and local residents, with the aim of maintaining a <u>positive impact</u> on the local communities from students living amongst them.

<u>RESTART</u> is a brand new partnership with Bath College to provide reskilling to people of all ages in the aftermath of the Covid pandemic. The core aim of RESTART is to ensure that the local community has an accessible opportunity to reskill in order to maximise employment and progression opportunities, in new sectors, by focusing on 'in demand' skills from basic to advanced.





# Goal 12: Ensure sustainable consumption and production patterns

# The UN says:

Worldwide consumption and production — a driving force of the global economy — rest on the use of the natural environment and resources in a way that continues to have destructive impacts on the planet.

Economic and social progress over the last century has been accompanied by environmental degradation that is endangering the very systems on which our future development — indeed, our very survival — depends.

The COVID-19 pandemic offers countries an opportunity to build recovery plans that will reverse current trends and change our consumption and production patterns towards a more sustainable future.

<u>Sustainable consumption and production</u> is about doing more and better with less. It is also about decoupling economic growth from environmental degradation, increasing resource efficiency and promoting sustainable lifestyles.

Sustainable consumption and production can also contribute substantially to poverty alleviation and the transition towards low-carbon and green economies.

# Bath Spa's response:

Bath Spa's primary contribution to Goal 12 is through our sector-leading waste management and recycling procedures, our sustainable food procurement practices and our ISO-certified environment and energy management systems. However, we have also committed to incorporate ISO20400-aligned sustainable procurement practices by 2025.

#### Education

Responsible production and consumption forms subject matter in many of our courses and modules (Table 7).

Course	Module/Core	Level	Number of Graduates 2020
Business and Management	Module	BA/CHE/MA	215*
Philosophy and Ethics	Core	BA (Hons)	17
Geography	Core	BA	38
Global Devmt and Sustainability	Core	BA	10
Sustainability in Life and Work	Core	Various	151**
Design	Core	BA/MA	51
Fashion	Core	BA	18

Table 7. Courses that address responsible production and consumption.

\* The degree to which students from Business and Management interact with concept of responsible production and consumption depends on the module choices they make. However, from 2021, the Sustainable Business module will become compulsory for all first year students.

\*\* Sustainability in Life and Work is an open module, which includes students from around 40 different courses. There will be some double counting as a result.

#### Research

Characterising our historic research output in terms of its contribution to the SDGs, collating this and developing a process for recording SDG contribution from future research is a current project. However, where appropriate, individual examples of relevant research are outlined in *"Research Focus"* below.

#### Research Focus:

Harper, A (2017) How can my textile art and my textile craft processes contribute to a dialogue through an investigation of materials used in a disposable culture? PhD thesis, Bath Spa University.

In her thesis Alison Harper explores the contribution that her textile art and textile craft processes can contribute to an ethical dialogue through an emerging materiality. This contribution is distinctive because, by focussing on certain materials commonly thought of as 'waste', she is drawing attention to how the growth and acceptability of a disposable culture alienates us from both the material world and also from knowledge of ourselves.

#### Practice

Our work over the last ten years on energy efficiency, which is covered under Goals 7 & 13 has contributed considerably to the Goal of responsible consumption. Our Sustainable Food Policy, Soil Association "Food for Life" award and our Fair Trade certification all contribute to responsible production and consumption. However, it is our waste and recycling management process and efforts to eliminate single-use items from our operations that have contributed most significantly. Sadly, the return of single use items has been one of the many negative consequences of the Covid pandemic and it is likely to take a few years to regain the ground we had made in this area.

Our goal in the development of our waste and recycling strategy in 2014 was to maximise the recovery of materials to help create a circular economy. Our approach to achieve this has been to make it as simple as possible, with consistent messaging and identical choices at every bin location. We collect just three waste streams, Recycling, Food and Non-recycling at every location across all campuses and halls. In addition, we segregate all commercial waste into metal, wood, green waste and "general", which is segregated for materials recovery, post-collection.

This approach has enabled us to reach *c*. 78-82% recycling rate for the last five years, except for a blip in 2016/17, which was due to systemic difficulties in a newly acquired residential accommodation development in Bath (Figure 3). Recycling rate for 2019/20 is shown, despite possible Covid-related effect, as it is a proportion of total waste and thereby normalised against overall quantity changes.

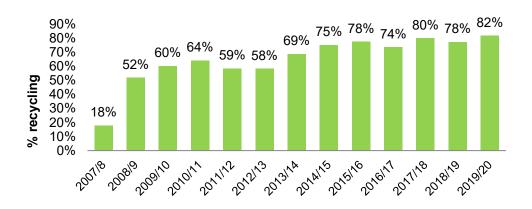


Figure 3. Recycling as percentage of total waste.

Our goal moving forward is to further increase recycling rates, eliminate wherever possible, single use materials from our operations and to reduce total waste and total waste per FTE. Both total waste and waste per FTE increased year on year as the University increased in size and as more students came to live in BSU student accommodation, with the development of the Gardens and Green Park House residences. Total waste per FTE fell in 2018/19 by around 10% (Figure 4). Data for 2019/20 are not shown as these are skewed due to Covid and would give a false impression of progress in this area.

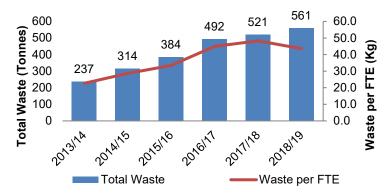


Figure 4. Total waste per academic year (t) and waste per FTE (kg)

#### Partnership

Other than the Sustainable Food Partnership, which has already been described under Goals 1 and 2, no further current partnerships have so far been identified that support Goal 12.



# Goal 13: Take urgent action to combat climate change and its impacts

### The UN says:

2019 was the <u>second warmest year on record</u> and the end of the warmest decade (2010-2019) ever recorded. Carbon dioxide (CO2) levels and other <u>greenhouse gases in the</u> <u>atmosphere</u> rose to new records in 2019.

Climate change is affecting every country on every continent. It is disrupting national economies and affecting lives. Weather patterns are changing, sea levels are rising, and weather events are becoming more extreme.

Although greenhouse gas emissions are projected to drop about 6 per cent in 2020 due to travel bans and economic slowdowns resulting from the COVID-19 pandemic, this improvement is only temporary. <u>Climate change is not on pause</u>. Once the global economy begins to recover from the pandemic, emissions are expected to return to higher levels.

Saving lives and livelihoods requires urgent action to address both the pandemic and the climate emergency.

The <u>Paris Agreement</u>, adopted in 2015, aims to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels. The agreement also aims to strengthen the ability of countries to deal with the impacts of climate change, through appropriate financial flows, a new technology framework and an enhanced capacity building framework.

# Bath Spa's response:

We have been working to reduce  $CO_2$  emissions since 2010 and have invested heavily in a ten-year carbon reduction programme, which was completed two years early in 2018. We have since published a second plan to take us to Net Zero emissions by 2030 and made a

public Climate Emergency Declaration to this effect. In 2020, the Board of Governors agreed to make CO<sub>2</sub> emissions a strategic KPI for the University.

Reducing our climate impact requires more than just the operation of our estate. The largest positive impact we can have it to influence the students that study at Bath Spa. Looking forward, empowering our students to understand and take action on their own climate impact is a crucial part of our work towards a more sustainable future. To this end, we are developing our curriculum to ensure carbon literacy is an integral part of our curriculum.

#### Education

Many of our courses address climate change in the context of their subject material, some more directly than others.

Work is ongoing to understand all areas of the curriculum that tackle issues around climate change and to identify gaps and opportunities to enable all students to leave BSU with an understanding of its causes, impacts and mitigations.

From next academic year, the School of Business and Management will be making their module on "Sustainable Business", which addresses climate change from a commerce and economics perspective, compulsory for all first year students.

Course	Module/ Core	Level	Number of Graduates 2020
Geography	Core	BSc	38
Global Devmt and Sustainability	Core	BSc	10
Business and Management	Module	BA	215*
Writing	Core	BA/MA	15
Environmental Humanities	Core	MA	2
Environmental Management	Core	MSc	6
Philosophy and Ethics	Core	BA	17
Biol/Env Sciences	Core	BSc	32
Sustainability in Life and Work	Core	Various	151**

Table 8. Graduates from courses with content that addresses climate change.

\* The degree to which students from Business and Management interact with concept of responsible production and consumption depends on the module choices they make. However, from 2021, the Sustainable Business module will become compulsory for all first year students.

\*\* Sustainability in Life and Work is an open module, which includes students from around 40 different courses. There will be some double counting as a result.

#### Research

Characterising our historic research output in terms of its contribution to the SDGs, collating this and developing a process for recording SDG contribution from future research is a current project. However, where appropriate, individual examples of relevant research are outlined in *"Research Focus"* below.

#### **Research Focus:**

A major impact of climate change is increased severity and frequency of flooding, which is exacerbated by land management practices. The Bath Spa School of Geography has been involved for many years in research in the Kullu District, Indian Himalaya, to map and understand historic and contemporary flood events and the impact of climate change. The <u>HiFlo-DAT</u> project works to create a new historical flood hazard database for evolved Disaster Risk Reduction.

#### Practice

We have delivered our 2010-20 Carbon Reduction Management Plan, which set out a pathway to reducing carbon emissions by 50%, from 4,000 t/y, by 2020. During this time, our estate has expanded by around 50%, our student accommodation has increased by approximately 1,000 beds and we have seen an approximate 30% increase in the operational hours. Nevertheless, prior to the Covid pandemic, we had reduced carbon emissions by 36% in total and by 63% per m<sup>2</sup> (Figure 5). This was aided by a reduction in the embedded carbon in our electricity supply, which was included in our initial modelling. However, since 2016, we have purchased 100% renewable electricity, certified under the <u>REGO</u> chain of custody audit process. If we were to report this as zero carbon, our annual emissions would be *c*.1,000 tonnes or a 75% reduction from baseline.

We monitor emissions from both commuting and business travel. Both of these categories are included in the scope of our second Carbon Reduction Management Plan and we are working to reduce the impacts from both.

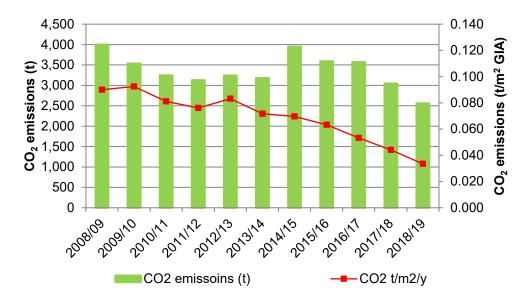


Figure 5. Total Scope 1 & 2 carbon emissions per year (tonnes  $CO_2$ ) (green bars) and  $CO_2$  per m<sup>2</sup> per year (Goss Internal Area) (red line)

#### Partnership

Bath Spa University is an active member of the Bath and North East Somerset Council, Climate Emergency Public Services Group. The purpose of this group is to develop

collaborative solutions to reduce carbon emissions in the Bath and North East Somerset region, towards a 2030 Net Zero Target.



# Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development

### The UN says:

The ocean drives global systems that make the Earth habitable for humankind. Our rainwater, drinking water, weather, climate, coastlines, much of our food, and even the oxygen in the air we breathe, are all ultimately provided and regulated by the sea.

Careful management of this <u>essential global resource</u> is a key feature of a sustainable future. However, at the current time, there is a continuous deterioration of coastal waters owing to pollution, and ocean acidification is having an adversarial effect on the functioning of ecosystems and biodiversity. This is also negatively impacting small scale fisheries.

Saving our ocean must remain a priority. Marine biodiversity is critical to the health of people and our planet. Marine protected areas need to be effectively managed and well-resourced and regulations need to be put in place to reduce overfishing, marine pollution and ocean acidification.

# Bath Spa's response:

Marine and aquatic research and activity are not big for Bath Spa. However, issues relating to conservation of life below water, including the sustainability of current marine harvesting are addressed in a number of courses. Operationally, protection of surface and groundwater is a priority under our ISO14001 Environmental Management System.

#### Education

Our Sustainability and Ethics courses tackle issues of sustainable fishery management and ocean sustainability. Our Biological Sciences and Environmental Management courses include learning related to aquatic and marine conservation.

Course	Module/ Core	Level	Number of Graduates 2020
Global Devmt and Sustainability	Core	BSc	10
Environmental Management	Core	MSc	6
Philosophy and Ethics	Core	BA	17

Travel and Nature Writing	Core	MA	11
Biol/Env Sciences	Core	BSc	32
Sustainability in Life and Work	Core	Various	151*

\* Sustainability in Life and Work is an open module, which includes students from around 40 different courses. There will be some double counting as a result.

#### Research

Characterising our historic research output in terms of its contribution to the SDGs, collating this and developing a process for recording SDG contribution from future research is a current project. However, where appropriate, individual examples of relevant research are outlined in *"Research Focus"* below.

#### **Research Focus:**

Dr Ian Thornhill, Reader in Ecology and Conservation at Bath Spa, leads research into tropical freshwater ecology in Dominica, as part of Operation Wallacea. In this 2018 expedition, participating students came from the US, Canada, Switzerland and the UK to undertake a variety of tropical ecology research in association with the Forestry, Wildlife and Parks Division of Dominica. The aim of the research programme is to monitor the recovery of freshwater ecosystems following hurricane damage, to inform local authorities that do not have their own capacity for such work.

#### Practice

We manage our campuses in a manner that protects surface and groundwater, beyond that which is required under environmental legislation.

We have installed surface water interceptors with oil separation in our primary car park to prevent contaminated surface washings from entering the sewerage system or the surface waters on our main campus, which includes two lakes and a stream. We also have trained spill management teams at each site, with appropriate spill management materials and run periodic training drills to ensure good practice.

We only serve fish from MSC-accredited sources in our catering establishments.

#### Partnership

In addition to the Wallacea research described above, Dr Ian Thornhill also leads the <u>RESPIRES</u> partnership, which looks at the value to urban communities of healthy water spaces.





# Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss

# The UN says:

Nature is critical to our survival: nature provides us with our oxygen, regulates our weather patterns, pollinates our crops, produces our food, feed and fibre. But it is under increasing stress. <u>Human activity has altered almost 75 per cent of the earth's surface</u>, squeezing wildlife and nature into an ever-smaller corner of the planet.

Around <u>1 million animal and plant species are threatened with extinction</u> – many within decades – according to the 2019 Global Assessment Report on Biodiversity and Ecosystem Service. The report called for transformative changes to restore and protect nature. It found that the health of ecosystems on which we and all other species depend is deteriorating more rapidly than ever, affecting the very foundations of our economies, livelihoods, food security, health and quality of life worldwide.

Deforestation and desertification – caused by human activities and climate change – pose major challenges to sustainable development and have affected the lives and livelihoods of millions of people. <u>Forests are vitally important</u> for sustaining life on Earth, and play a major role in the fight against climate change. And investing in <u>land restoration</u> is critical for improving livelihoods, reducing vulnerabilities, and reducing risks for the economy.

# Bath Spa's response:

#### Education

The importance of healthy, functioning ecosystems and the biodiversity they both support and depend upon, both for humanity and nature's own sake is explored in a number of courses at Bath Spa. However, subject matter pertaining to this goal is absent from the formal material in the majority of our taught courses.

Course	Module/ Core	Level	Number of Graduates 2020
Global Devmt and Sustainability	Core	BSc	10
Environmental Humanities	Core	MA	8
Environmental Management	Core	MSc	6
Philosophy and Ethics	Core	BA	17
Travel and Nature Writing	Core	MA	11
Biol/Env Sciences	Core	BSc	32
Sustainability in Life and Work	Core	Various	151*

\* Sustainability in Life and Work is an open module, which includes students from around 40 different courses. There will be some double counting as a result.

#### Research

Characterising our historic research output in terms of its contribution to the SDGs, collating this and developing a process for recording SDG contribution from future research is a current project. However, where appropriate, individual examples of relevant research are outlined in *"Research Focus"* below.

#### Research Focus:

<u>Erica Jane Mortimer's 2016 PhD thesis</u>: "Ecotypic variation in Lotus corniculatus L. and implications for grassland restoration: Interaction of ecotypes with soil type and management, in relation to herbivory" assesses the importance of using ecologically-similar rather than geographically-local seed in grassland restoration projects, with particular reference to herbivorous invertebrates, including pollinators.

#### Practice

Bath Spa University's main campus, is located on a historically-important, Capability Brownstyled parkland estate, called Newton Park. While this comes with management constraints to maintain the heritage value, it gives great opportunity for habitat creation and biodiversity enhancement.

The Estate is managed under a ten-year <u>Biodiversity and Habitat Management Plan</u>, which is independently monitored by Nicolas Pearson Associates. This has led to the creation, enhancement and maintenance of several important grassland, woodland and aquatic habitats. The University is also a registered Hedgehog Friendly Campus.

#### Partnership





# Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

# The UN says:

Conflict, insecurity, weak institutions and limited access to justice remain a great threat to sustainable development.

The number of <u>people fleeing war</u>, <u>persecution and conflict exceeded 70 million</u> in 2018, the highest level recorded by the UN refugee agency (UNHCR) in almost 70 years.

*In 2019, the United Nations tracked <u>357 killings and 30 enforced disappearances</u> of human rights defenders, journalists and trade unionists in 47 countries.* 

And the births of around <u>one in four children</u> under age 5 worldwide are never officially recorded, depriving them of a proof of legal identity crucial for the protection of their rights and for access to justice and social services.

# Bath Spa's response:

Bath Spa supports Goal 16 on many levels, from the inclusion of student representation at the highest level of its internal governance to partnerships with local government, international partnerships, research, and education.

#### Education

Course	Module/ Core	Level	Number of Graduates 2020
Global Devmt and Sustainability	Core	BSc	10
Environmental Humanities	Core	MA	8
Sociology	Core	BSc	23
Criminology	Core	BSc/CHE	67
Philosophy and Ethics	Core	BA	17
Business and Management	Module	BA	219*
Sustainability in Life and Work	Core	Various	151**

\* The degree to which students from Business and Management interact with concept of responsible production and consumption depends on the module choices they make. However, from 2021, the Sustainable Business module will become compulsory for all first year students.

\*\* Sustainability in Life and Work is an open module, which includes students from around 40 different courses. There will be some double counting as a result.

#### Research

Characterising our historic research output in terms of its contribution to the SDGs, collating this and developing a process for recording SDG contribution from future research is a current project. However, where appropriate, individual examples of relevant research are outlined in *"Research Focus"* below.

#### **Research Focus:**

In his 2019 paper for the British Journal of Community Justice, "<u>Developing Community Courts</u> <u>with Restorative Justice in Ireland</u>" Dr Paul Gavin, Senior Lecturer in Criminology at BSU and Dr Muna Sabbagh, Lecturer in Law, University of Hertfordshire, examine the development of restorative justice as a workable concept in Ireland, alongside the roll out of community courts.

The authors set out a framework of principles for community courts and the place within these for restorative justice, and promote their place in the Irish criminal justice system.

#### Practice

As is common in the HE sector, BSU has strong internal governance, which is transparent, accountable and committed to supporting good governance wherever it has influence. Our governance rules are set out in the <u>Instrument and Articles of Government</u>, which includes student representation through the Students' Union and transparency is maintained through the publication of <u>annual reports</u> and <u>governance policy</u>.

#### Partnership

<u>DESTIN</u> - Journalism Education for Democracy in the Ukraine: Developing Standards, Integrity and Professionalism

This project, coordinated by Bath Spa University, in partnership with the Taras Shevchenko National University of Kyiv, Institute of Journalism, aims to improve and develop Ukrainian journalism education, by reviewing and reforming current BA and MA programmes by raising the quality to EU standards, improving students' employability and international mobility, and promoting wider media literacy.

DESTIN is co-funded by the Erasmus+ Programme of the European Union – Key Action 2: Cooperation for innovation and the exchange of good practices – Capacity Building in the field of Higher Education.

This project brings together 20 European institutions, including 10 Ukrainian universities, governmental and non-governmental organisations in the Ukraine, as well as universities and non-governmental organisations from United Kingdom, Austria, Ireland, the Netherlands, Poland, and Sweden.





# Goal 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development

# The UN says:

The SDGs can only be realized with strong global partnerships and cooperation.

A successful development agenda requires inclusive partnerships — at the global, regional, national and local levels — built upon principles and values, and upon a shared vision and shared goals placing people and the planet at the centre.

Many countries require Official Development Assistance to encourage growth and trade. Yet, <u>aid levels are falling</u> and donor countries have not lived up to their pledge to ramp up development finance.

Due to the COVID-19 pandemic, the <u>global economy</u> is projected to contract sharply, by 3 per cent, in 2020, experiencing its worst recession since the Great Depression.

Strong international cooperation is needed now more than ever to ensure that countries have the means to recover from the pandemic, build back better and achieve the Sustainable Development Goals.

# Bath Spa's response:

Bath Spa's commitment to the development of partnerships for the betterment of society and humanity is clear from our 2030 Strategy, which states our purpose as:

"Our purpose is to challenge our students and staff to realise their talent and thrive, for their own benefit and for the wider good. By doing this we will think and make the world better."

We recognise the key role that strong partnerships have to play in realising this purpose and have set partnership building as a pillar for success in our strategy. Under the strategic theme of Enterprise, we state:

We will build partnerships

We will build partnerships and work with employers, cultural organisations, academics and alumni. These partnerships will:

- foster economic and cultural development (local, regional, international)
- improve our student learning and graduate outcomes

• ensure that our work is relevant, useful and needed.

Many of the partnerships we have with institutions around the world have been outlined already in this document, as they pertain to particular SDGs. However, this has not included our flagship international partnership with HE institutions from several continents, <u>GALA</u>, the Global Academy of Liberal Arts.

The GALA network forms a key part of BSU's international strategy, supporting opportunities for international engagement by staff and students primarily through BSU's GALA Outreach scheme that has provided c.200 awards since 2017/18.

GALA is an international community of diverse, innovative, and socially responsible universities and colleges whose aims are to transform lives and to enhance global understanding through interdisciplinary collaboration in teaching and research. There are currently 19 partners across the globe, from Los Angeles to Adelaide, from Moscow to Johannesburg. The network was founded by BSU in 2014 and continues to managed by a team at BSU (Professor Ian Gadd, Professor Rebecca McGuire-Snieckus, Gin Darcy), under the oversight of the PVC for Research and Enterprise. It is currently restructuring its governance and finances to move to a shared-cost model that will be more equitable and sustainable in the long term.

As part of this, GALA has agreed a set of *network* objectives (i.e. things that GALA will aim to do as a *group*) and a longer list of *partner* objectives (i.e. objectives provided by each partner that align with their own institutional/faculty strategy) for 2020-23. The former includes an expectation that GALA will have "facilitated innovative and interdisciplinary collaborations in teaching and research, some of which will have explicitly engaged with the Sustainable Development Goals".