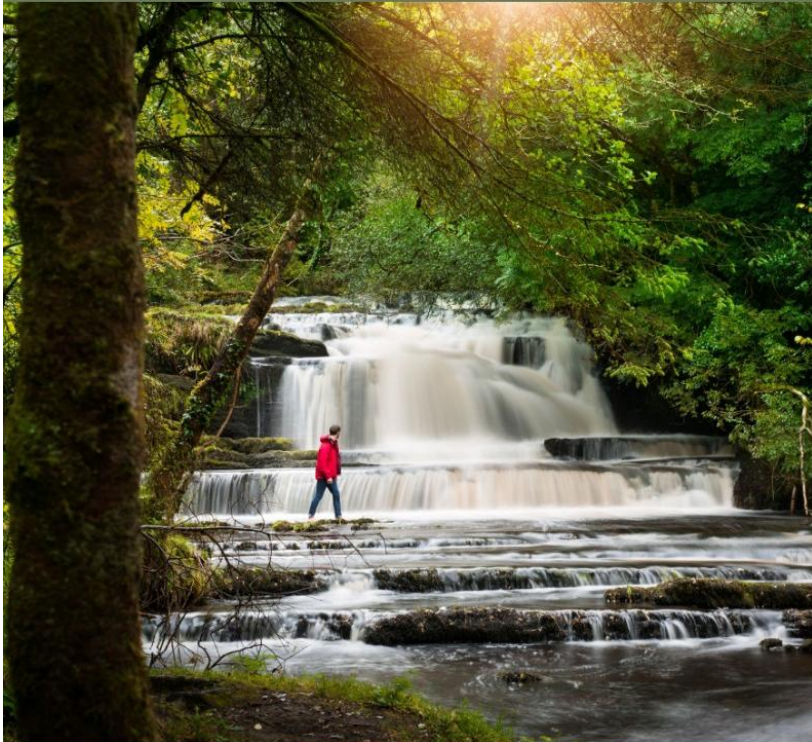# Sustainable tourism

Anita Conefrey

(Email: anita.Conefrey@research.atu.ie/ anita.conefrey8424@donegaletb.ie)

CLIMATE CHANGE AND TOURISM:
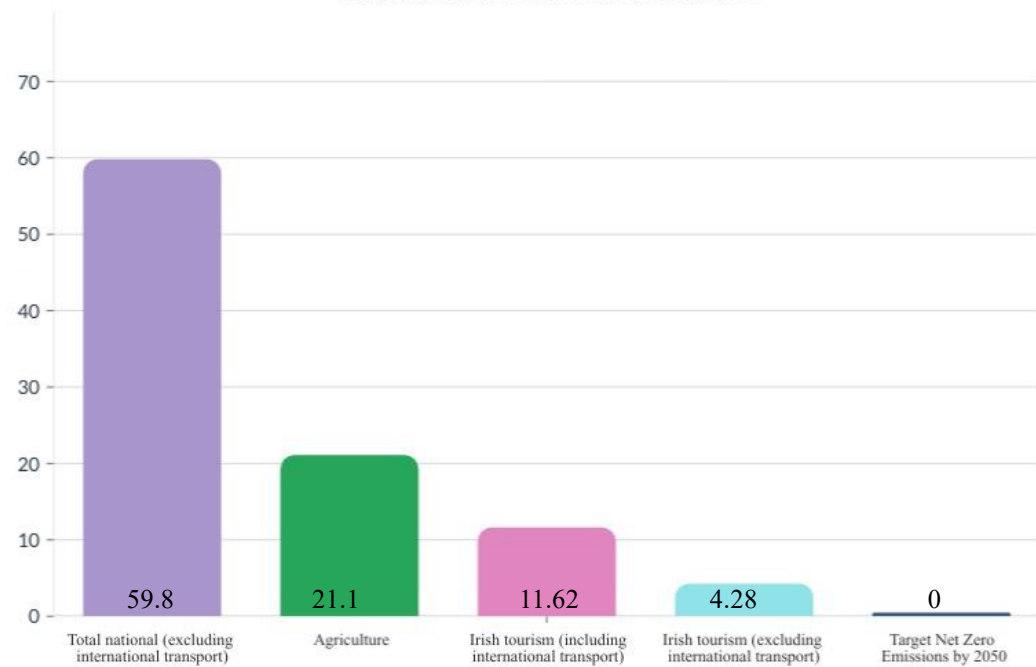THE CARBON FOOTPRINT OF IRISH TOURISM

Irish tourism generated 11.62 MtCO2eq in 2019

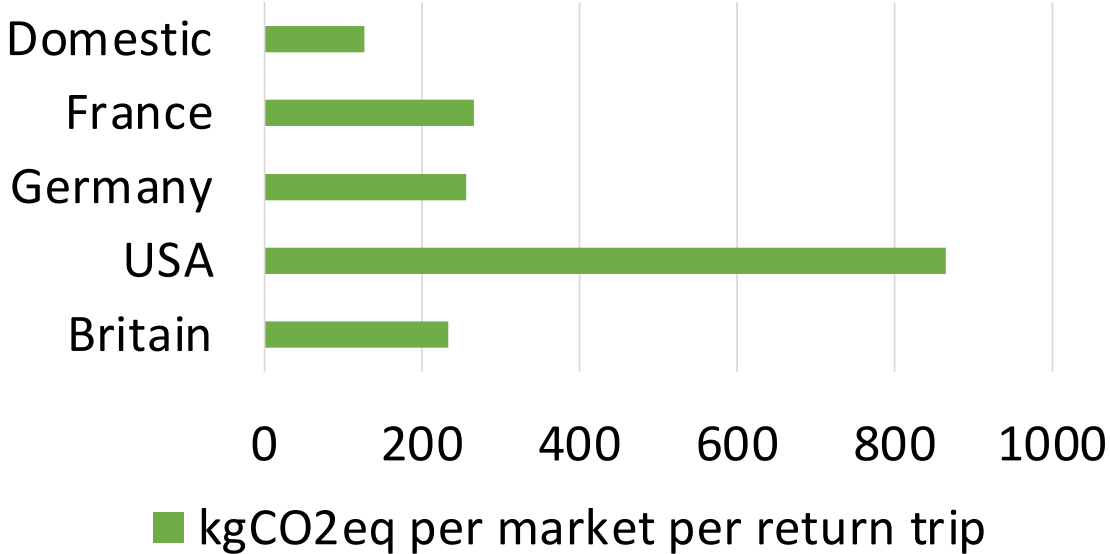*Includes emissions from international aviation
*Excludes emissions from domestic aviation, cruise passengers and outbound tourists

Comparing Ireland's Emissions (MtCO2eq) in 2019

Total national (excluding international transport)	59.8
Agriculture	21.1
Irish tourism (including international transport)	11.62
Irish tourism (excluding international transport)	4.28
Target Net Zero Emissions by 2050	0

Average carbon footprint of tourists markets to a county in Ireland

	kgCO2eq per market per return trip
Domestic	▇
France	▇
Germany	▇
USA	▇
Britain	▇

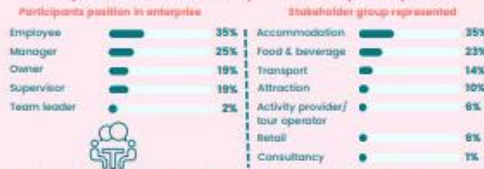0   200   400   600   800   1000

■ kgCO2eq per market per return trip

*Includes international and internal transport, accommodation, food and beverages, attractions/ activities and shopping

Assessed Irish tourism enterprises

- High levels of climate action/ sustainability literacy

- Lack of internal climate action /sustainability/ decarbonisation plans

- Low levels of actions being implemented

Assessed Irish third-level tourism educators

92%

SUSTAINABLE DEVELOPMENT GOALS

50% — 50 % of HEIs have aligned their tourism and hospitality programme(s) with the United Nations Sustainable Development Goals (UNSDGs)

8% — 8% of HEIs have aligned their tourism and hospitality programme(s) with Goal 13 (Climate Action) of the UNSDGs

9% — 9% of HEIs have their tourism programme(s) learning outcomes focused on decarbonisation

34% — 34% of HEIs have their tourism module(s) learning outcomes focused on decarbonisation

Sustainable Literacy

Does your programme(s) provide education on:

Responsible travel	92%
The impact of tourism on carbon emissions	92%
The impact of carbon emissions (CO2eq) on climate change	50%
Establishing the Tourism Satellite Accounts	42%
The circular economy	42%
Slow tourism	42%
The bi-directional relationship between tourism & climate change	41%
The need for behavioral adaptations to achieve decarbonisation	33%
Low-carbon transport & tourism	33%
Customer Relationship Management Systems	25%
Environmental Social Governance Sustainability Management	17%
Demarketing long-haul markets	17%

Measuring Tourism Emissions

Does your programme(s) provide training on:

How to measure emissions	50%
Utilising energy & water management systems	42%
Utilising sustainable performance measurement	33%
Monitoring emissions	25%
Utilising digital carbon footprint management systems	25%
Data collection and distribution	17%
Identifying system boundaries to measure tourism emissions	17%

- Lack of aligning programmes to the SDGs
- Lack of climate action/ sustainability literacy
- Lack of climate action education

50%

50 % of HEIs tourism and hospitality programme(s) provide education on tourism decarbonisation practices

Decarbonisation practices

Does your programme(s) provide education on:

Reduce, reuse and recycle	42%
Reducing emissions	42%
How to provide guidance & training to operational staff	42%
Reducing energy usage	42%
Observing how staff use energy appliances	42%
Eliminating unnecessary lights	42%
Adopting renewable energy sources	42%
Reducing water waste	42%
Reducing food waste	42%
Local product sourcing	42%
Eliminating unnecessary plastics	42%
Integrating reusable items	33%
Low-carbon menu options	33%
Reducing fossil fuel consumption	33%
Optimising ground fleet	25%
Reducing solid waste	25%
Adopting electricity, heating, & cooling efficiencies	25%
Developing a strict policy of turning off equipment	25%
Compensating emissions (offsetting/ carbon credits)	25%
The roles & responsibilities of sustainability officer/manager	25%
Encouraging investment in the conservation of biodiversity	25%
Encouraging investment in technology-based solutions (direct air capture, enhanced weathering, biodigester)	25%
Consulting with energy providers on reducing costs & consumption	17%
Using more fuel-efficient/ electric transportation	17%
Offering/supporting more sustainable trip options (for visitors & employees)	17%
Introducing free water stations	17%
Urban/ building improvements	17%
Sustainable finance & insurance	17%
Sustainable cloud computing, IT & software	17%
Utilising Geographic Information Systems (GIS) mapping	17%

Continued professional development

83% — The majority (83%) of the tourism and hospitality educators in HEIs would like training on tourism decarbonisation practices

For insights into good practices regarding climate action and decarbonisation in tourism, please click the icon above to be directed to an online webinar (streamed by STORY@ATU on 6th December 2022)

You cannot manage what you do not measure

Environmental Sustainability in the Workplace Programme

QQI, Level 5, Special Purpose award, 5 credits

©SOLAS

Unit 1

Climate change and measures to address it. Biodiversity loss and other environmental pressures.

Climate change as a result of global warming impacts society, the environment, biodiversity, deforestation, water and air quality.

Businesses, individuals and global authorities can make changes to help.

Unit 2

Energy management & energy efficiency. Renewable energy. Carbon management.

Managing energy, carbon usage and switching to renewable energy can reduce costs and limit the impacts of climate change on the environment; sustainable management is key.

Unit 3

Sustainable food and food waste prevention.

Food production and waste emit greenhouse gases.

Implementing changes at a business and household level can reduce environmental impact and help develop more sustainable food supply systems.

Unit 4

The circular economy, waste and resource management. Life cycle thinking. Water management and conservation.

Understanding the circular economy and adopting life cycle thinking can help build a sustainable future.

Prevention of unnecessary consumption and managing water sufficiently will aid conservation.

Unit 5

Environmental management systems and green awareness for employees. Government supports and guidance.

Social and economic infrastructure can support sustainable changes with Environmental Management Systems (EMS), and government schemes and grants for individuals and businesses.

Unit 6

Greening lifestyles and communities.

Empowering individuals, businesses and communities to adopt sustainable lifestyles is fundamental.

Supporting and developing sustainable communities can help implement change. Individuals can make eco-friendly changes to clothing, food, transport and homes.

'Boost your awareness and identify key sustainable practices that can be implemented in your workplace'

Skills to Advance
boost skills - boost business

SOLAS
learning works

The photo, known as

 "Earthrise",

was later described as

"the most influential environmental photograph ever taken"
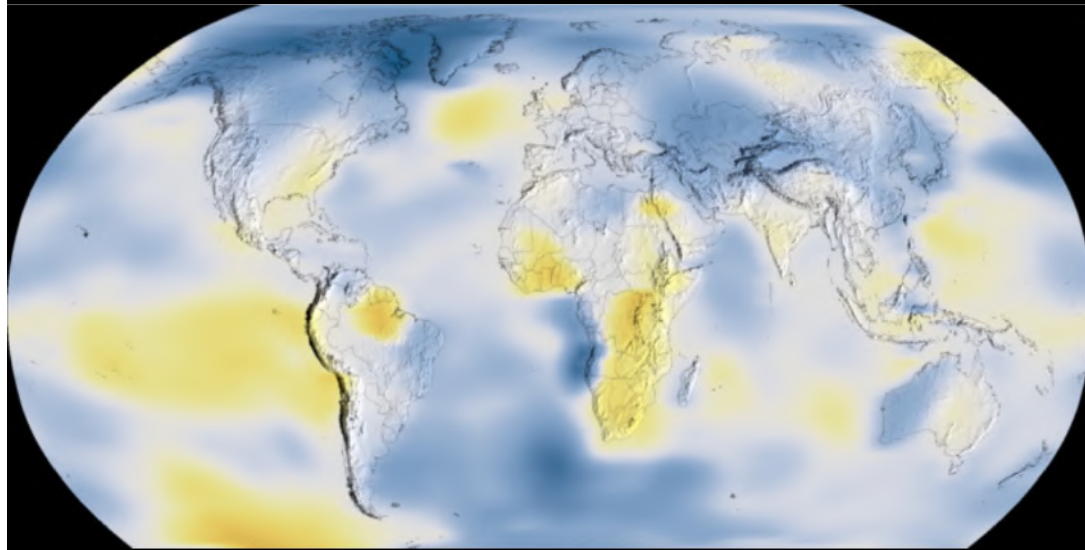
Years later, Anders reflected on his experience:

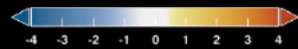"We came all this way to the moon, and yet the most significant thing we're seeing is our own home planet"

This photo of Earth, seen rising over the lunar horizon, was taken by the Apollo 8 crew on Christmas Eve 1968.
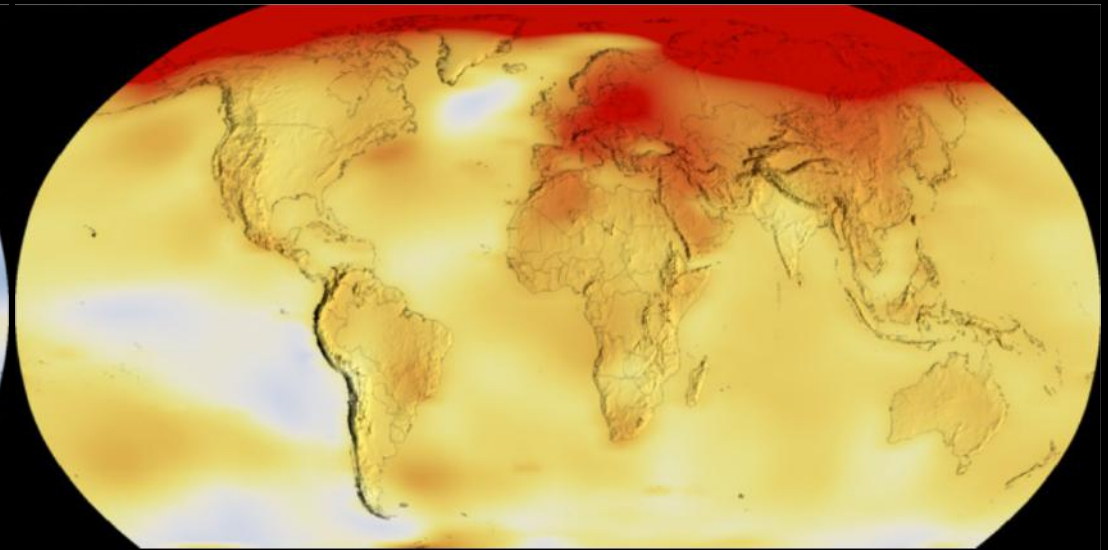William Anders/NASA, CC BY-SA

1900   2022

Temperature Difference (Fahrenheit)   -4 -3 -2 -1 0 1 2 3 4

Temperature Difference (Fahrenheit)   -4 -3 -2 -1 0 1 2 3 4

Policies, plans, regulations, legislation and directives

European Union

Striving to be the first climate-neutral continent

EU Climate Law:
- Reduce emissions by 55% by 2030
- Reduce emissions by 90% by 2040
- Reach Net-Zero emissions before 2050

EU Green Deal:
- Transform the economy into a modern, resource-efficient and competitive economy
  - Reach Net-Zero emissions by 2050
  - Economic growth decoupled from resource use
  - No person and no place left behind
- Fit for 55 legislation
  - Emission reductions
  - Boost natural carbon sinks
  - Updated EU ETS to cap emissions
  - Social support
  - Increase renewable energy and clean transportation
- **Corporate Sustainability Reporting Directive**
- **Green Claims Directive**

Ireland

National planning framework

- Aligns national, regional and local plans

National Implementation Plan 2018-2020

- Commitment to achieving the Sustainable Development Goals

Climate Action and Low Carbon Development (Amendment) Act 2021

- Commitment to Net-Zero by 2050

Local Authority Climate Action Plan 2024-2029

- Commitment to decarbonising at a local level

National Implementation Plan 2018-2020

8 DECENT WORK AND ECONOMIC GROWTH
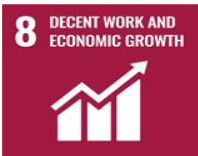
Policies to promote sustainable tourism that creates jobs and promotes local culture and products

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Tool to monitor sustainable tourism development impacts

14 LIFE BELOW WATER

Increase the economic benefits for the sustainable use and management of marine resources

DONEGAL COUNTY COUNCIL TOURISM STRATEGY 2017 - 2020

Comhairle Contae Dhún na nGall
Donegal County Council

Adopt a sustainable approach
to minimise impact

Development must be
managed

CARO

Comhairle Contae Dhún na nGall
Donegal County Council

CLIMATE READY DONEGAL
ENGAGE | PLAN | ADAPT

DONEGAL COUNTY COUNCIL
Climate Adaptation Strategy
September 2019

Step 1 Preparing the Ground

Step 2 Assessing the Current Baseline on Past Events

Adaptation Team

- Critical Buildings & Infrastructure
- Natural and Cultural Capital
- Water Resources and Flood Risk Management
- Community Services

- Extreme Cold Weather & Low Temperatures
- High Temperature & Low Rainfall
- Sea Level Rise & Coastal Flooding
- Strong Winds
- Extreme Rainfall

Step 3 Identifying Future Climate Impacts, Vulnerabilities & Risk

Step 4 Identifying, Assessing and Prioritising Adaptation Actions

Step 5 Drafting, Implementing and Monitoring Strategy

DONEGAL COUNTY COUNCIL

GOVERNMENT POLICY

GOVERNMENT AGENCIES

ACADEMIA

CLIMATE ACTION REGIONAL OFFICE

BUSINESSES

COMMUNITIES & INDIVIDUALS

Engage

Plan

Adapt

Shared responsibility

The role of sustainability in tourism

Optimal use of environmental resources

Maintaining essential ecological processes

Conserve natural resources and biodiversity

Respect the sociocultural authenticity of host communities

Conserve cultural heritage and traditional values

Contribute to intercultural understanding and tolerance

Long-term economic operations

Fairly distributed socio-economic benefits to all stakeholders

Stable employment

Income-earning opportunities

Social services to host communities

Poverty alleviation

Tourism for the Sustainable Development Goals

What are the Sustainable Development Goals?

A universal and urgent call for action

Consists of 17 goals and 169 targets

Interconnected

Partnership and pragmatism

Tourism for Sustainable Development Goals

Build knowledge and empower and inspire stakeholders to take action

Aligning policies, business operations and investments to SDGs

Greater efficiencies, cost savings and competitiveness while enhancing their social license to operate

Competitiveness remains a key driver

Financing of tourism is key to SDG success

A common roadmap for our journey to 2030

TOURISM FOR SDGS a platform developed by UNWTO

Tourism for Sustainable Development Goals

1 NO POVERTY

On-going staff training; Partnerships for education; Diversity management; Complementary benefits; In-kind donations for education, Poverty and human rights; Responsible investment and local recruitment; Local purchases and fair-trade

4 QUALITY EDUCATION

Professional development and training; Partnerships for education; Diversity management; Education for culture and heritage; In-kind donations for education; On-going staff training, information, facilities; Host community involvement
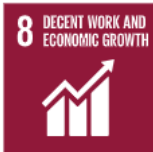
8 DECENT WORK AND ECONOMIC GROWTH

Training for professional development; Diversity management and local recruitment; Performance incentives-complementary benefits; Responsible investment and local purchases; Community involvement

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Efficiency technologies for energy and water; Renewable energies; Recycling – waste treatment; Pollution reduction; Local purchase and enterprises; Local supplier; Community involvement; Responsible investment; Guest involvement

13 CLIMATE ACTION

Eco-design; New equipment and technologies; Renewable energies; Recycling and waste; Wildlife and ecosystems – landscape protection; Pollution reduction; Offsetting actions; Awareness campaign and in-kind donations for disasters

17 PARTNERSHIPS FOR THE GOALS

Professional development; Partnerships for education; Wildlife and ecosystems animal protection; Offsetting actions; Supplier and Customer involvement; Client relationships; Staff involvement and relationships; Community involvement

TOURISM FOR SDGS a platform developed by UNWTO

Ollscoil Teicneolaíochta an Atlantaigh / Atlantic Technological University

Storyatu.ie / Sustainable Tourism and Visitor Experience Lab

UNWTO / INSTO

etb / Bord Oideachais agus Oiliúna Dhún na nGall / Donegal Education and Training Board

How can tourism enterprises engage with the SDGs?

TOURISM AND SDG 1 NO POVERTY

1 NO POVERTY

Develop tourism products and services for lower-income customers

Recruit, train and employ local community members

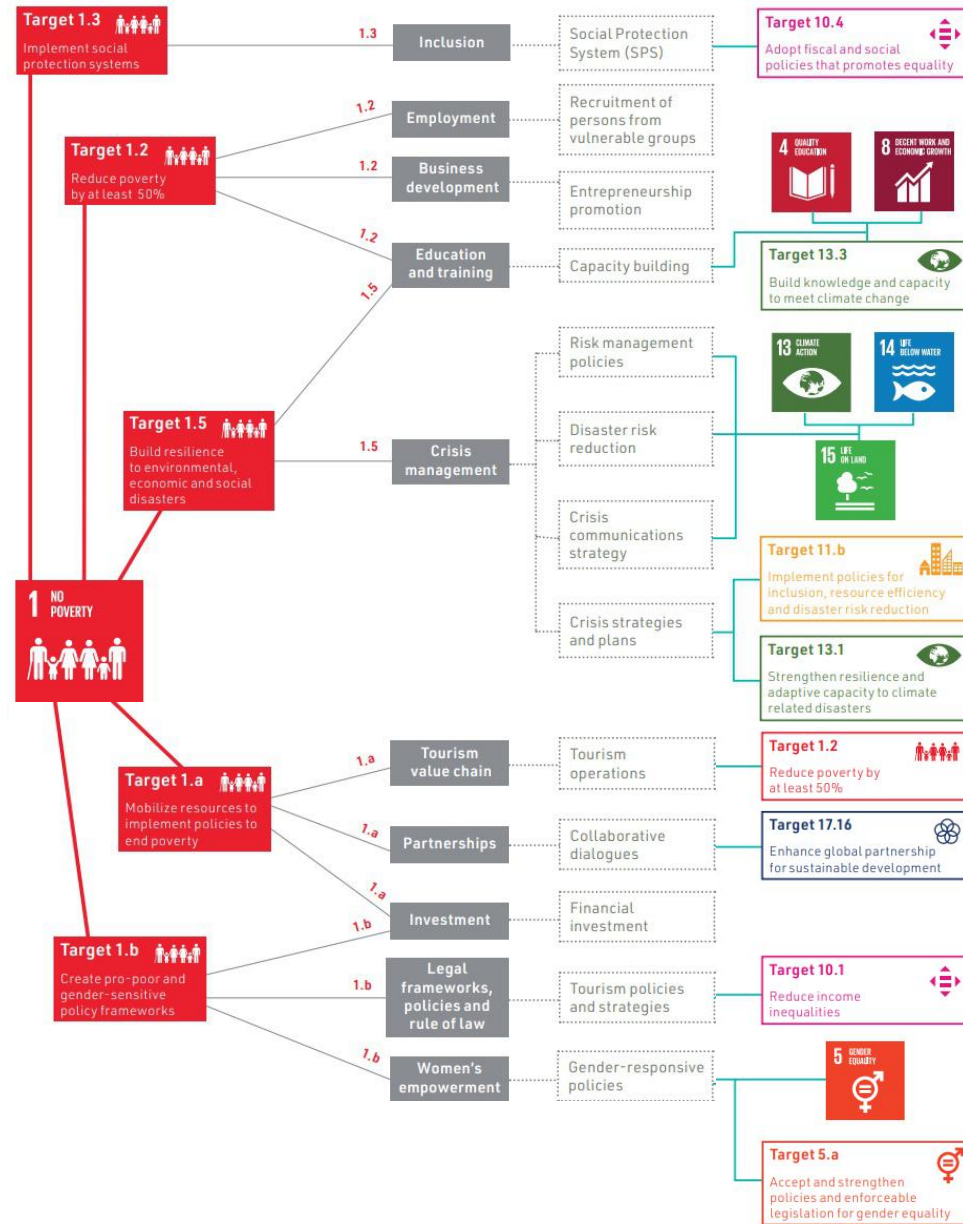Including those living in poverty, and integrating them into the tourism value chain

Invest in business-driven poverty eradication activities (e.g. develop living wage policy)

Partner with civil society networks to provide education and entrepreneurial skills training

TOURISM FOR SDGS a platform developed by UNWTO

Target 1.3
Implement social protection systems

Target 1.2
Reduce poverty by at least 50%

Target 1.5
Build resilience to environmental, economic and social disasters

1 NO POVERTY

Target 1.a
Mobilize resources to implement policies to end poverty

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

1.3	Inclusion
1.2	Employment
1.2	Business development
1.2	Education and training
1.5	Crisis management
1.a	Tourism value chain
1.a	Partnerships
1.b	Investment
1.b	Legal frameworks, policies and rule of law
1.b	Women's empowerment

Social Protection System (SPS)

Recruitment of persons from vulnerable groups

Entrepreneurship promotion

Capacity building

Risk management policies

Disaster risk reduction

Crisis communications strategy

Crisis strategies and plans

Tourism operations

Collaborative dialogues

Financial investment

Tourism policies and strategies

Gender-responsive policies

Target 10.4
Adopt fiscal and social policies that promotes equality

4 QUALITY EDUCATION

8 DECENT WORK AND ECONOMIC GROWTH

Target 13.3
Build knowledge and capacity to meet climate change

13 CLIMATE ACTION

14 LIFE BELOW WATER

15 LIFE ON LAND

Target 11.b
Implement policies for inclusion, resource efficiency and disaster risk reduction

Target 13.1
Strengthen resilience and adaptive capacity to climate related disasters

Target 1.2
Reduce poverty by at least 50%

Target 17.16
Enhance global partnership for sustainable development

Target 10.1
Reduce income inequalities

5 GENDER EQUALITY

Target 5.a
Accept and strengthen policies and enforceable legislation for gender equality

TOURISM FOR SDGS a platform developed by UNWTO

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Atlantic Technological University

Storyatu.ie
Sustainable Tourism and Visitor Experience Lab

UNWTO
INSTO

TOURISM AND SDG 12 RESPONSIBLE CONSUMPTION AND PRODUCTION

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Analysis tools to understand environmental and social footprint of products/ services

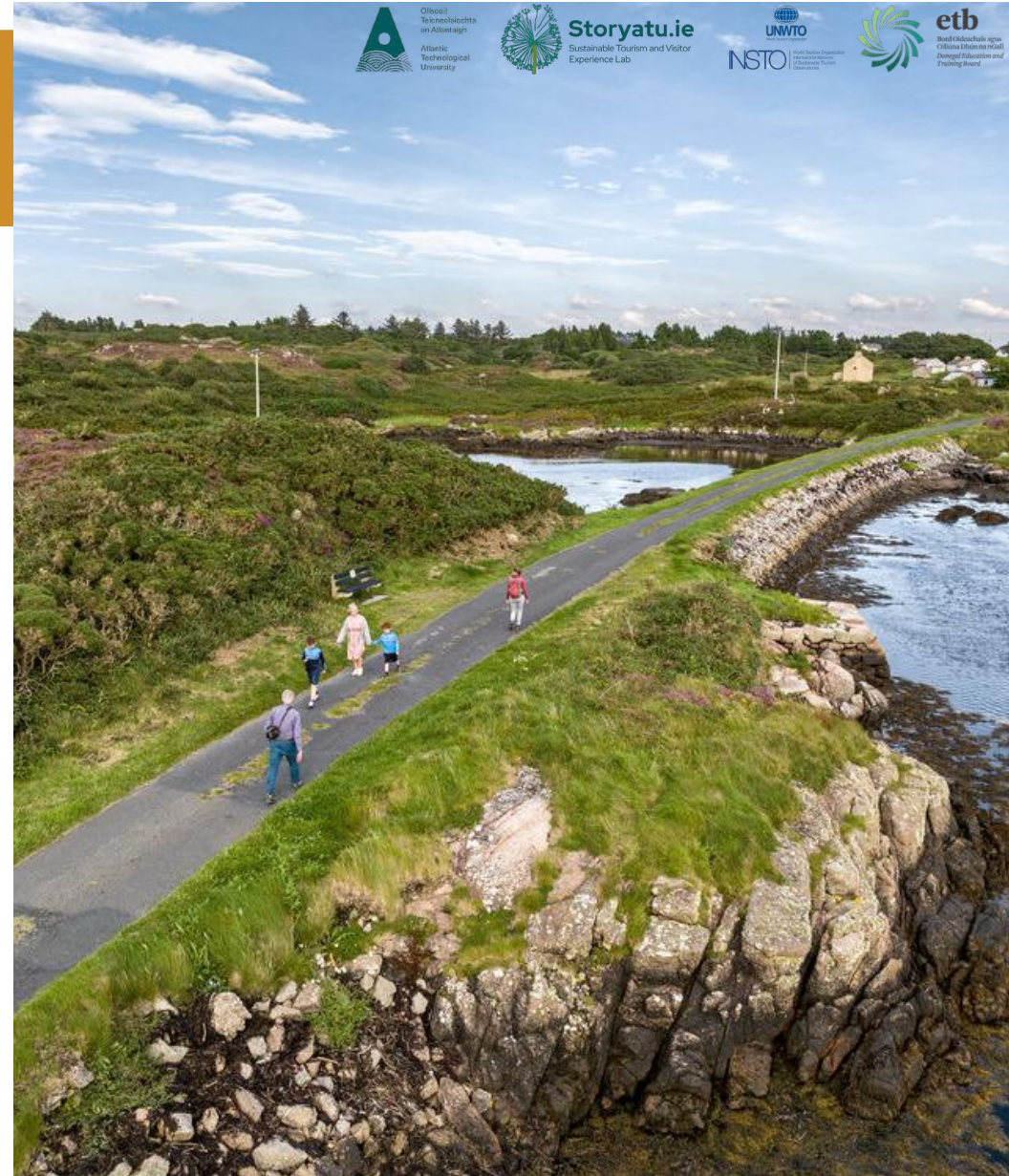Develop innovative business models to help close the materials loop

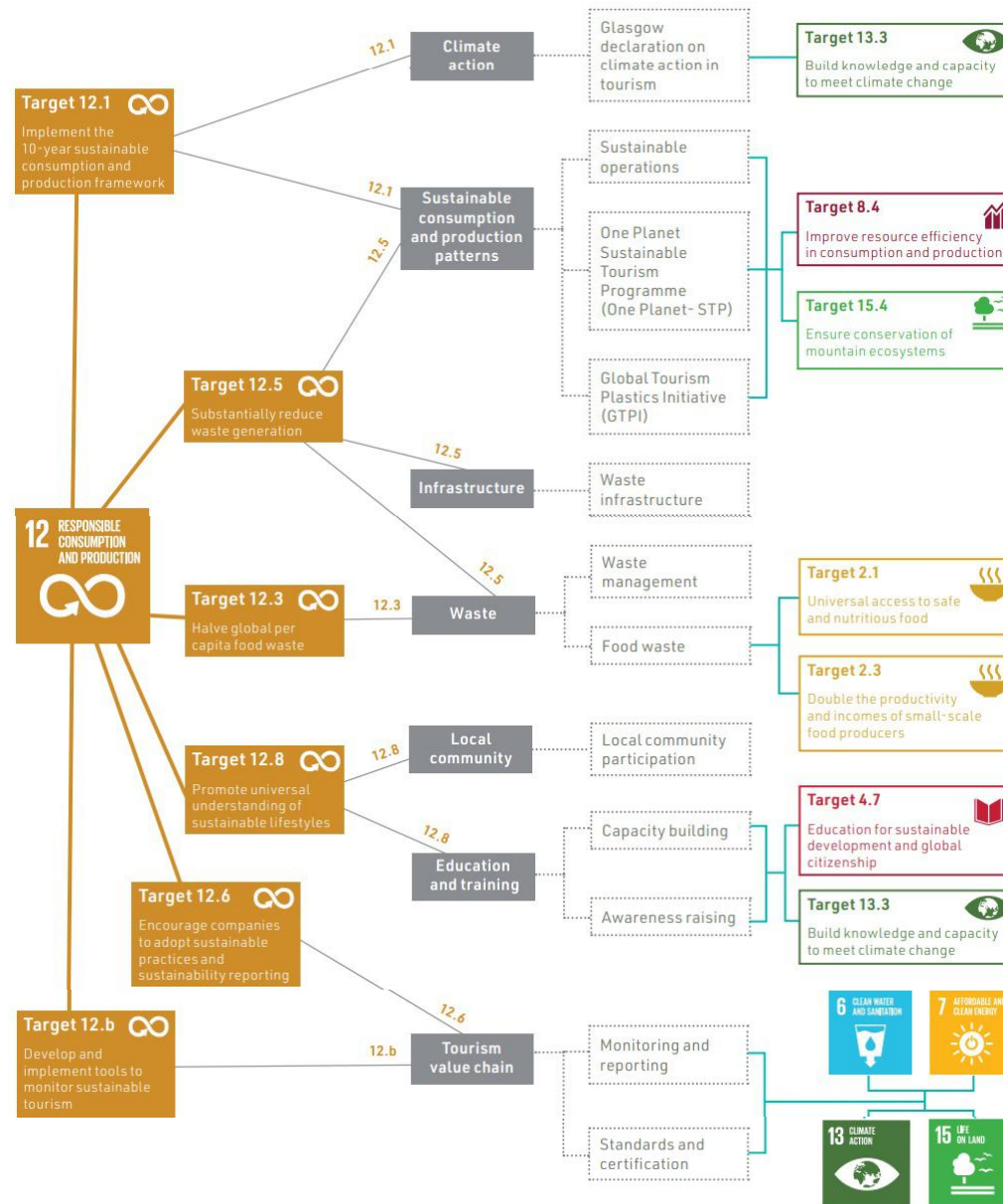Reduce manufacturing impacts by substituting virgin raw materials in products

Reduce waste and ensure that any unavoidable waste is utilised to the fullest

Share and engage with ONE Planet – Travel with care.

TOURISM FOR SDGS a platform developed by UNWTO

Target 12.1

Target 12.1 ∞

Implement the 10-year sustainable consumption and production framework

12.1 Climate action

Glasgow declaration on climate action in tourism

Target 13.3

Build knowledge and capacity to meet climate change

12.1 Sustainable consumption and production patterns

Sustainable operations

One Planet Sustainable Tourism Programme (One Planet- STP)

Global Tourism Plastics Initiative (GTPI)

Target 8.4

Improve resource efficiency in consumption and production

Target 15.4

Ensure conservation of mountain ecosystems

Target 12.5 ∞

Substantially reduce waste generation

12.5 Infrastructure

Waste infrastructure

Target 12.3 ∞

Halve global per capita food waste

12.5 / 12.3 Waste

Waste management

Food waste

Target 2.1

Universal access to safe and nutritious food

Target 2.3

Double the productivity and incomes of small-scale food producers

Target 12.8 ∞

Promote universal understanding of sustainable lifestyles

12.8 Local community

Local community participation

12.8 Education and training

Capacity building

Awareness raising

Target 4.7

Education for sustainable development and global citizenship

Target 13.3

Build knowledge and capacity to meet climate change

Target 12.6 ∞

Encourage companies to adopt sustainable practices and sustainability reporting

Target 12.b ∞

Develop and implement tools to monitor sustainable tourism

12.6 / 12.b Tourism value chain

Monitoring and reporting

Standards and certification

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

6 CLEAN WATER AND SANITATION

7 AFFORDABLE AND CLEAN ENERGY

13 CLIMATE ACTION

15 LIFE ON LAND

TOURISM AND SDG 13 CLIMATE ACTION

Renewable energy

Retrofit to LED lighting

Incentivise less carbon-intensive transport modes (e.g. trains over flights)

Invest in innovation and carbon capture and storage technology

Reduce emissions from transport operations with greater fuel efficiency, local sourcing, modal shift (e.g. air to sea freight) etc.

Expand sustainable forest management through responsible sourcing and substitution

TOURISM FOR SDGS a platform developed by UNWTO

Target 13.1
Strengthen resilience and adaptive capacity to climate disasters

13 CLIMATE ACTION

Target 13.2
Integrate climate change measures into policies and planning

Target 13.b
Promote mechanisms to raise capacity for climate planning and management

Target 13.3
Build knowledge and capacity to meet climate change

13.1 — Infrastructure — Urbanization

13.1 — Crisis management — Crisis communications strategy

13.1 — Climate action — Disaster risk reduction

Glasgow declaration on climate action in tourism

13.2 — Climate change

13.2 — Natural resource management — Renewable energy

13.2 — Tourism value chain — Monitoring and reporting

13.b — Education and training — Awareness raising

13.1 / 13.b — Capacity building

13.3 — Legal frameworks, policies and rule of law — Tourism human resource policy

Target 1.5
Build resilience to environmental, economic and social disasters

Target 11.b
Implement policies for inclusion, resource efficiency and disaster risk reduction

Target 12.1
Implement the 10-year sustainable consumption and production framework

Target 7.2
Increase global percentage of renewable energy

Target 7.b
Expand and upgrade energy services for developing countries

Target 1.5
Build resilience to environmental, economic and social disasters

Target 4.7
Education for sustainable development and global citizenship

Target 12.8
Promote universal understanding of sustainable lifestyles

TOURISM FOR SDGS a platform developed by UNWTO

Ollscoil Teicneolaíochta an Atlantaigh — Atlantic Technological University

Storyatu.ie — Sustainable Tourism and Visitor Experience Lab

UNWTO — INSTO

Opportunities

8 DECENT WORK AND ECONOMIC GROWTH

Economic growth and employment creation

17 PARTNERSHIPS FOR THE GOALS

Collaborating, investing and local development

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Action plans, certification and sustainability reporting

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Efficiency gain, enhanced customer engagement and knowledge transfer

TOURISM FOR SDGS a platform developed by UNWTO

Challenges

Natural resource and waste management

Urban development
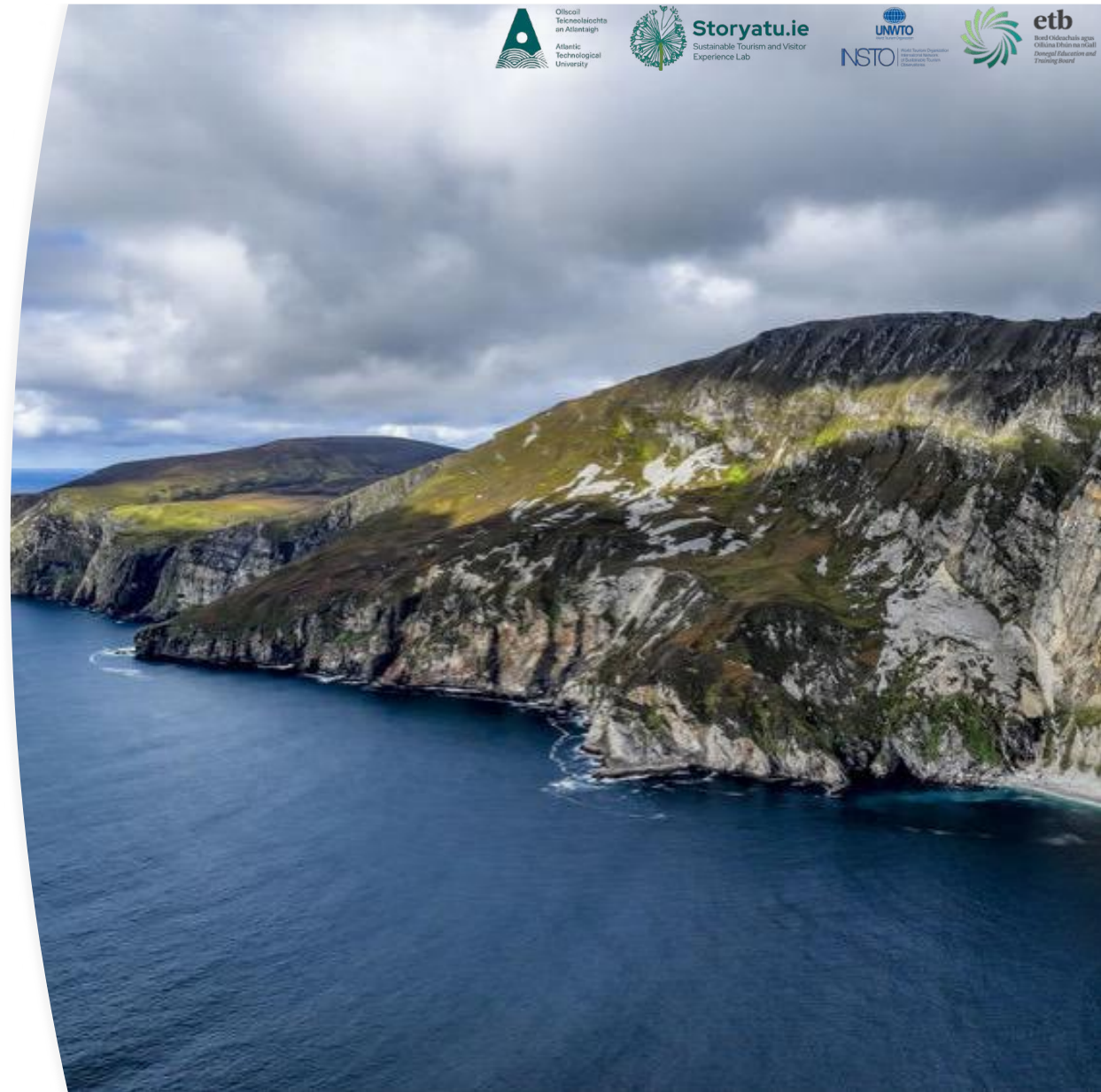
Examples of enterprises implementing SDGs

Kehida Termál – Hungary

"From natural water flows opportunity"

Developed an old thermal medical bath with special curing water inside into a 'fun-and-spa-resort'

Destination management	Innovation
Rural Development	Tourism and culture

Themes
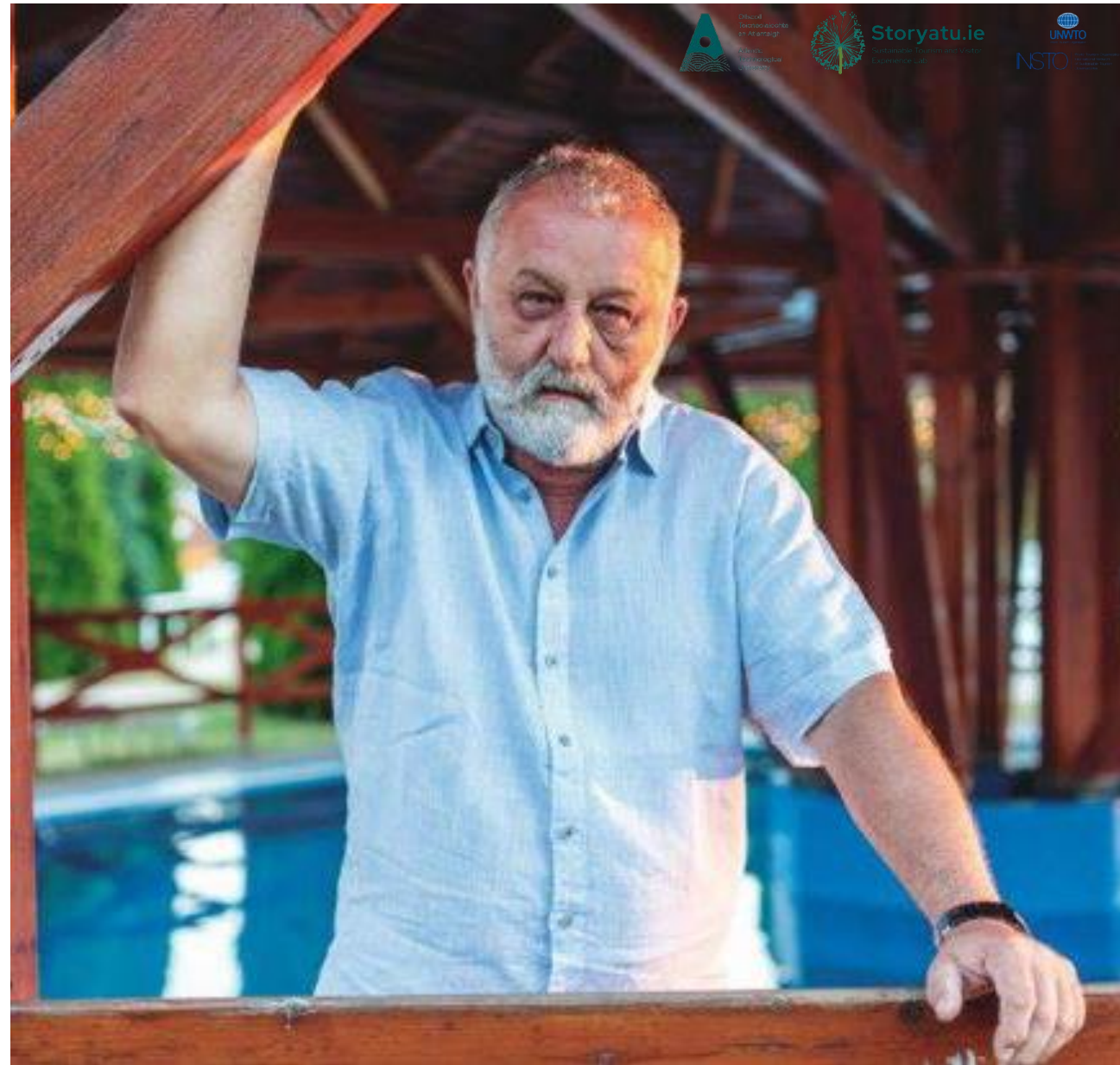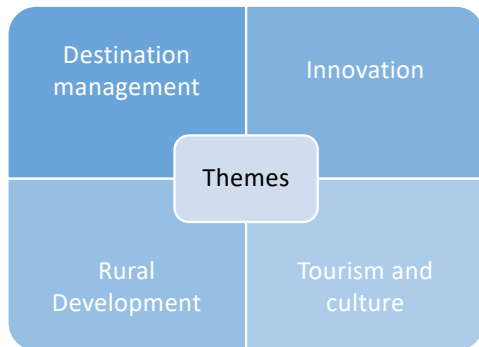
Impact House- Lisbon

"A hostel committed with sustainability and NGO support in Lisbon"
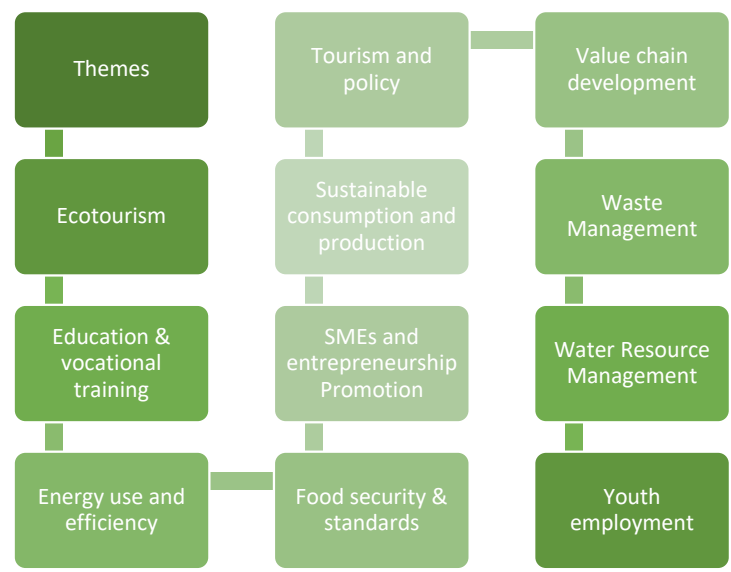
Veloservice– Italy

"Historical trails on two wheels"
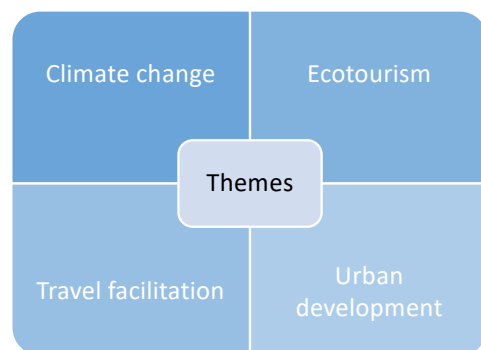
Examples of destinations implementing SDGs

Examples of destinations implementing SDGs

G20 Tourism and SDGs Dashboard

Return · Home · Tourism in the G20 · G20 Tourism Working Group survey results · Goa Roadmap

UN Tourism

Germany

1. Green Tourism

Conception and piloting of the German Climate Fund for Tourism

Innovative financing model for climate protection activities

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

13 CLIMATE ACTION

CHALLENGE

Germany aims to enable the tourism sector to develop, implement and document effective greenhouse gas (GHG) reductions in line with national climate protection targets.

INITIATIVE

The German Climate Fund for Tourism is being developed to accelerate the implementation of climate protection activities. The fund is part of the National Climate Initiative of the German Federal Government by first co-developing feasible long term GHG reduction targets and a sector wide GHG inventory. In decarbonization workshops, feasible long-term reduction targets for the tourism industry will be formulated, aligned with national reduction targets. Following on from this, model solutions for the reduction of GHG emissions by tourism service providers and destinations will be developed and tested. A sector-specific and legally compliant financing model for climate protection activities will accelerate the implementation of these solutions. An industry-wide GHG inventory will be developed that is compatible with the national GHG inventory.

IMPACT

Efforts in tourism will contribute to the collective contribution across sectors to reduce GHG emissions in Germany.

TOURISM FOR SDGS a platform developed by UNWTO

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Examples of destinations implementing SDGs

G20 Tourism and SDGs Dashboard

Netherlands

5. Destination Management

Guidelines on Destination Management

Contributing to quality of life for residents and visitors

CHALLENGE
Netherlands aims to work towards a conscious destination where tourism has a positive impact in economy, local communities and local environment through destination management.

INITIATIVE
'The 7 steps of effective destination management' is a guideline that works towards integral customization, perfectly tailored to local dynamics. Destination management refers to all efforts, which in conjunction with each other, are aimed at maximizing the positive impact of the hospitality domain for a city or region.

IMPACT
The positive impact consists of social, environmental and economic value. Destination management contributes to quality of life for residents, optimization of visitor experiences and a future-proof sector for entrepreneurs and employees.

Examples of destinations implementing SDGs

Indicators to measure sustainable tourism

Global Measuring Mechanisms for Sustainable Tourism

- Tourism Satellite Accounts
- International Recommendations for Tourism Statistics 2008
- Measuring the Sustainability of Tourism (MST)
- UN Tourism International Network of Sustainable Tourism Observatories
- Indicators of Sustainable Development for Tourism Destinations (2004)
- Global Sustainable Tourism Council Criteria
- European Tourism Indicators System
- Tourism and the Sustainable Development Goals- Journey to 2030
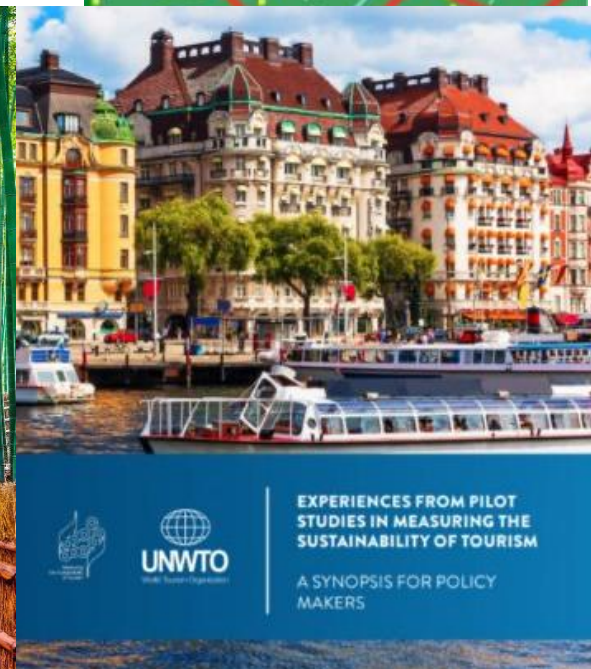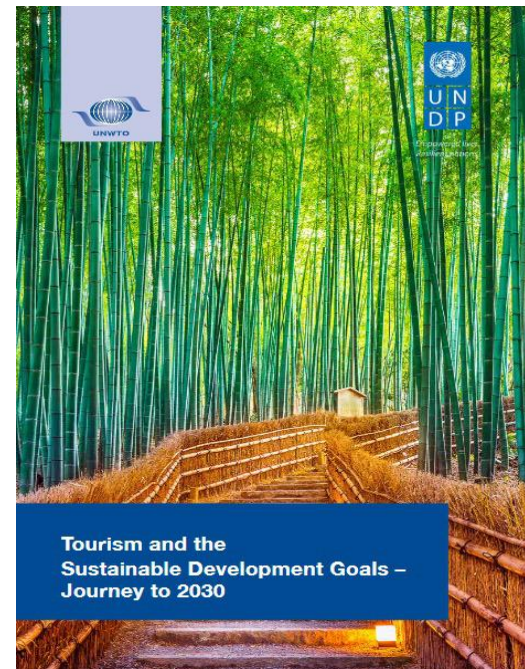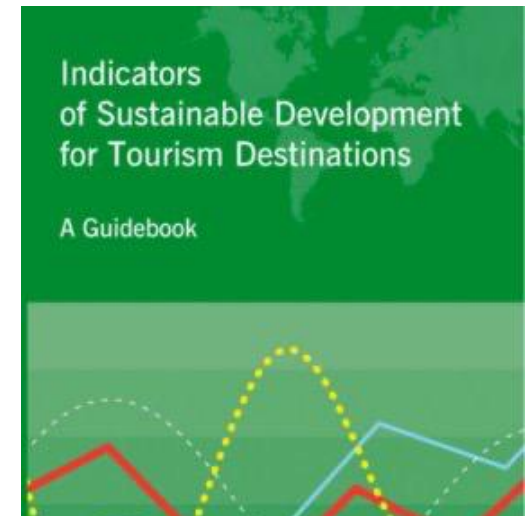
THE UN TOURISM INTERNATIONAL NETWORK
OF SUSTAINABLE TOURISM OBSERVATORIES
(INSTO)

Global network

Established in 2004, INSTO is a Network of Tourism Observatories monitoring sustainable tourism development at destination level

Mission

Regular monitoring of economic, environmental and social impacts of tourism, to unlock the power of evidence-based decision making at the destination level

Growing members

Over 44 destinations globally are now engaged in the continuous and timely measurement of the impacts of tourism, serving their stakeholders with up-to-date and reliable evidence for better decision-making processes at the local level

UN Tourism Atlantic Coast Sustainable Tourism Observatory, Ireland

Run by the *Sustainable Tourism and Visitor Experience Lab* (STORY@ATU)

Preliminary study for the application of the STO to become a member of the UNWTO INSTO network
February 2023

The Atlantic Sustainable Tourism Observatory, Ireland

UN Tourism Atlantic Coast Sustainable Tourism Observatory, Ireland

Storyatu.ie — Sustainable Tourism and Visitor Experience Lab
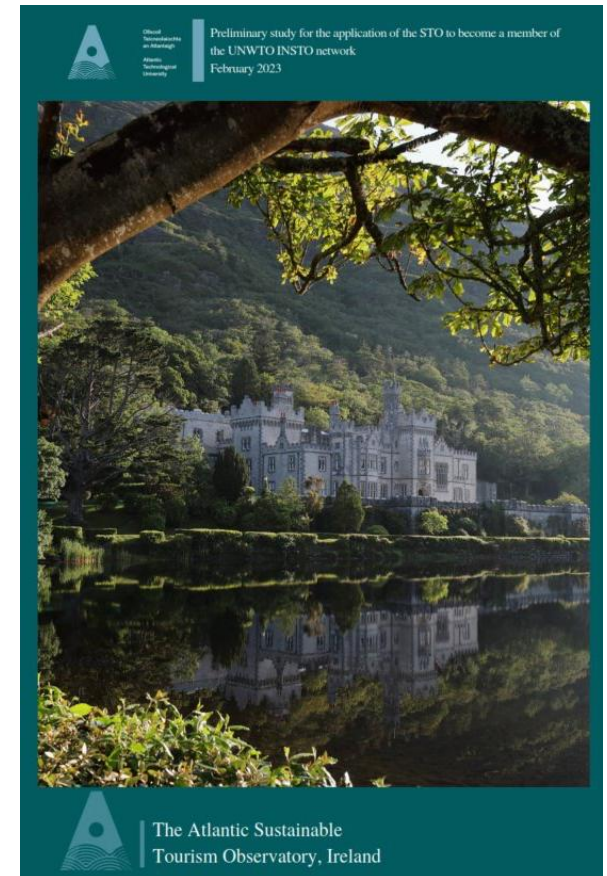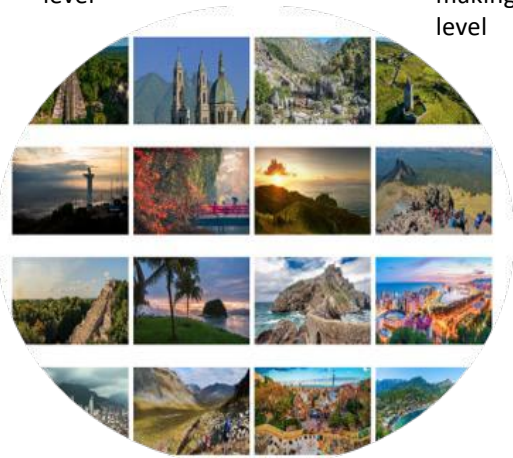
Over 40 core indicators, established from a blend of:
- INSTO 11 key issue areas
- Global and EU recognised indicators (UNWTO, GSTC, ETIS)
- Destination specific indicators
- Sustainable Development Goal (SDGs) indicators

Destination Management

Destination Management	Core Indicators
A.1 Sustainable tourism public policy	• Percentage of tourism enterprises/establishments in the destination using a voluntary certification/labelling for environmental /quality/sustainability and/or Corporate Social Responsibility.
A.2 Customer satisfaction	• Percentage of tourists and same-day visitors that are satisfied with their overall experience in the destination. • Percentage of repeat/return visitors (within 5 years).

Economic value

Economic Value	Core Indicators
B.1 Tourism flow (volume and value) at destination	• Number of tourist nights per month • Number of same-day visitors per month • Relative contribution of tourism to the destination's economy (% GDP) • Daily spending per overnight tourist • Daily spending per same-day visitors
B.2 Tourism enterprise(s) performance	• Average length of stay of tourists (nights) • Occupancy rate in commercial accommodation per month and average for the year
B.3 Quantity and quality of employment	• Direct tourism employment as percentage of total employment in the destination • Percentage of jobs in tourism that are seasonal
B.4 Tourism supply chain	• Percentage of locally produced food, drinks, goods and services sourced by the destination's tourism enterprises

Socio-cultural impact

| Social and Cultural Impact	Core Indicators
C.1 Community/social impact	• Number of tourists/visitors per 100 residents • Percentage of residents who are satisfied with tourism in the destination (per month/season) • Number of beds available in commercial accommodation establishments per 100 residents • Number of second homes per 100 homes
C.2 Health and safety	• Percentage of tourists who register a complaint with the police
C.3 Gender equality	• Percentage of men and women employed in the tourism sector • Percentage of tourism enterprises where the general manager position is held by a woman
C.4 Inclusion/accessibility	• Percentage of rooms in commercial accommodation establishments accessible for people with disabilities • Percentage of commercial accommodation establishments participating in recognised accessibility information schemes • Percentage of public transport that is accessible to people with disabilities and specific access requirements • Percentage of tourist attractions that are accessible to people with disabilities and/or participating in recognised accessibility information schemes
C.5 Protecting and enhancing cultural heritage, local identity and assets	• Percentage of residents that are satisfied with the impacts of tourism on the destination's identity • Percentage of the destination's events that are focused on traditional/local culture and heritage

Environmental impact

Environmental Impact	Core Indicators
D.1 Reducing transport impact	• Percentage of tourists and same-day visitors using different modes of transport to arrive at the destination • Percentage of tourists and same-day visitors using local/soft mobility/public transport services to get around the destination • Average travel (km) by tourists and same-day visitors from home to the destination • Average carbon footprint of tourists and same-day visitors travelling from home to the destination
D.2 Climate change	• Percentage of tourism enterprises involved in climate change mitigation schemes — such as: CO2 offset, low energy systems, etc.— and 'adaptation' responses and actions • Percentage of tourism accommodation and attraction infrastructure located in 'vulnerable zones'
D.3 Solid waste management	• Waste production per tourist night compared to general population waste production per person (kg) • Percentage of tourism enterprises separating different types of waste • Percentage of total waste recycled per tourist compared to total waste recycled per resident per year
D.4 Sewage treatment	• Percentage of sewage from the destination treated to at least secondary level prior to discharge
D.5 Water management	• Water consumption per tourist night compared to general population water consumption per resident night • Percentage of tourism enterprises taking actions to reduce water consumption • Percentage of tourism enterprises using recycled water
D.6 Energy usage	• Energy consumption per tourist night compared to general population energy consumption per resident night • Percentage of tourism enterprises that take actions to reduce energy consumption • Percentage of annual amount of energy consumed from renewable sources (Mwh) compared to overall energy consumption at destination level per year
D.7 Landscape and biodiversity protection	• Percentage of local enterprises in the tourism sector actively supporting protection, conservation and management of local biodiversity and landscapes

Ollscoil Teicneolaíochta an Atlantaigh — Atlantic Technological University

Storyatu.ie — Sustainable Tourism and Visitor Experience Lab

UNWTO — World Tourism Organization International Network of Sustainable Tourism Observatories — INSTO

UN Tourism Atlantic Coast Sustainable Tourism Observatory, Ireland

Measuring and monitoring sustainable tourism

- Islands of the coast of Ireland
- Hidden Heartlands
- Clare
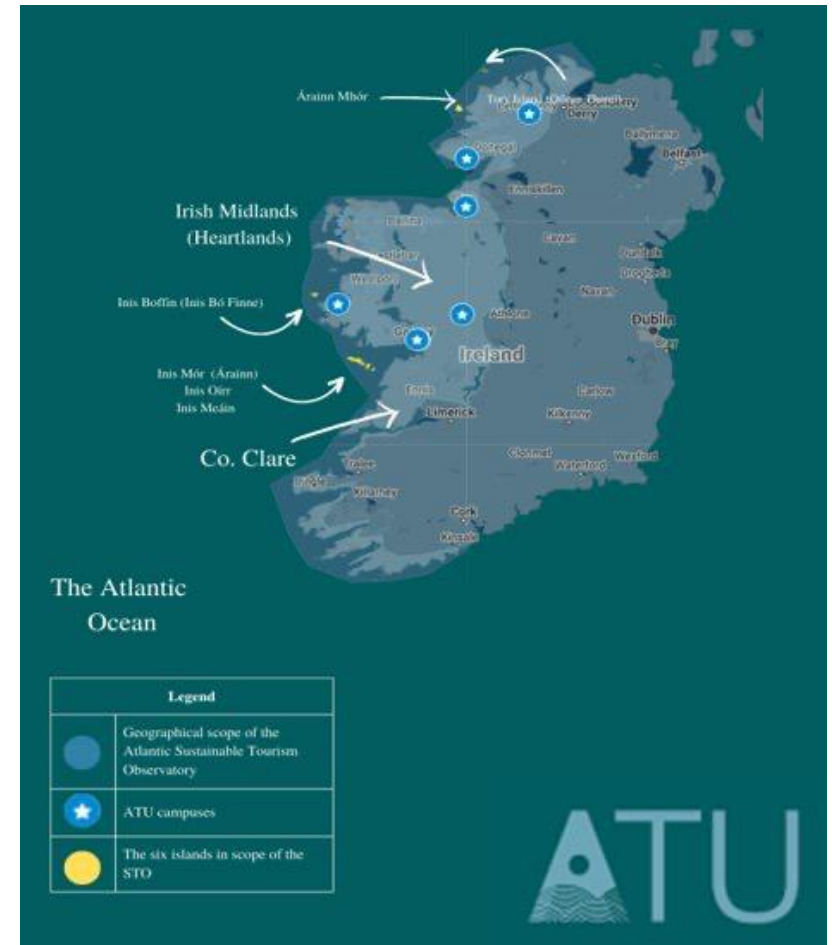
Thank you

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