Tourism - a high emission sector

INTERNATIONAL TOURIST ARRIVALS 1950 - 2030

- 2030: 1.8 Billion
- 2012: 1 Billion
- 1950: 25 Million

1950	1960	1970	1980	1990	2000	2012	2016	2020	2030
25 Mn	69 Mn	166 Mn	277 Mn	435 Mn	669 Mn	1 Bn	1.235 Bn	1.4 Bn	1.8 Bn

Forecast

2016   2030

(Mn Million / Bn Billion)

2017 INTERNATIONAL YEAR OF SUSTAINABLE TOURISM FOR DEVELOPMENT

UNWTO

Source: © Highlights 2017 - World Tourism Organization (UNWTO), July 2017

Travel and tourism - accounting for 8-11% of man made CO2 emissions.

Carbon Footprint of Global Tourism

- 6% Construction & Mining
- 1% Other
- 6% Lodging
- 8% Services
- 8% Agriculture
- 10% Food & Beverage
- 12% Goods
- 49% Transport

SUSTAINABLE TRAVEL INTERNATIONAL

https://sustainabletravel.org/issues/carbon-footprint-tourism/

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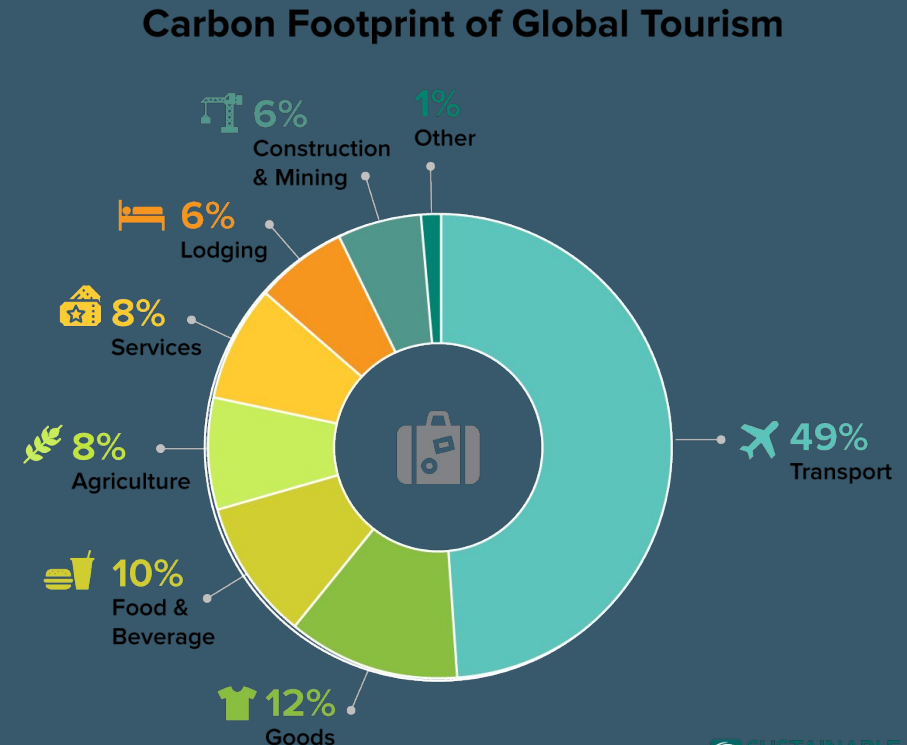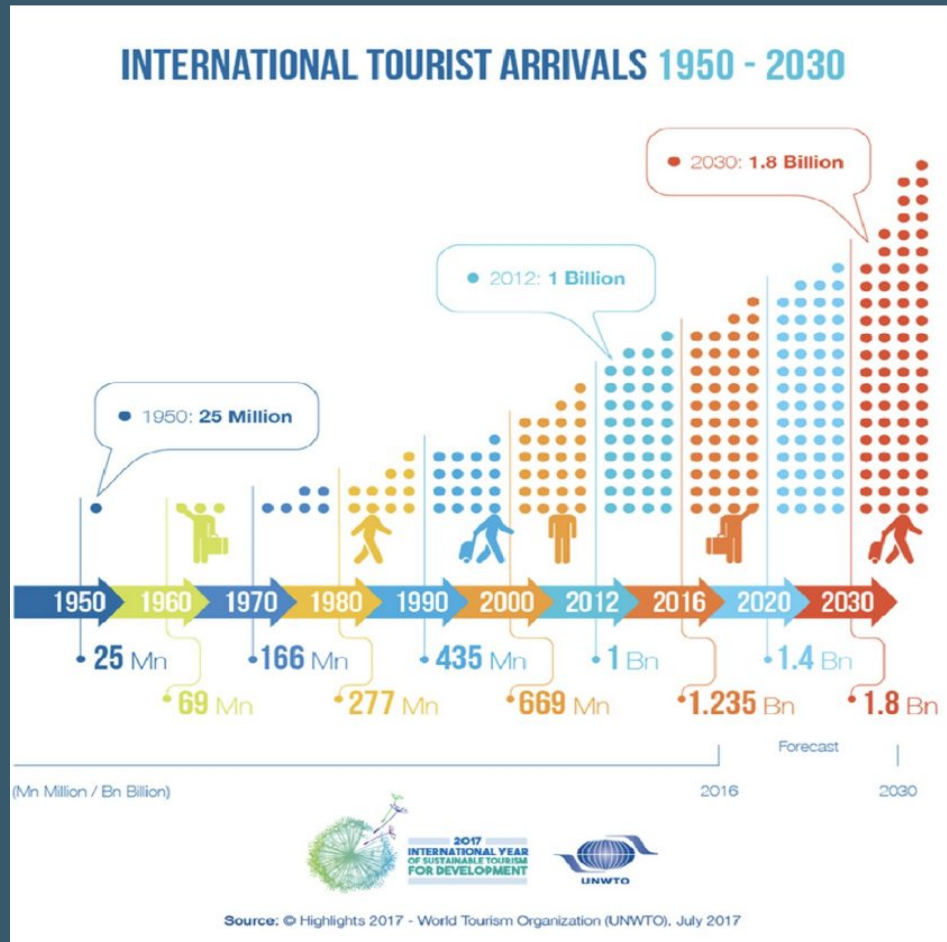
Climate change - an existential threat

Climate change is the greatest challenge to tourism and host communities.

People worldwide swelter, suffer, die under climate change-fueled heat waves

US — Warning issued over excessive heat and humidity

UK — June average temperature tops record at **15.8C (60.44F)**

IRAN — Temperatures reach **50C (122F)**

CHINA — Temperatures exceeded **40C (104F)** rising to levels unseen since 1961

MEXICO — Temperatures exceeded **40C (104F)** — More than 110 people have died from heat-related causes

SPAIN — Temperatures **rise to 44C (111.2F)** — 8 of 17 autonomous administrations issue **alerts** in June

PAKISTAN — Heatstroke **killed at least 22 people** on June 25-26

INDIA — More than 150 **people died** in June

July 4, 2023   Source: Zoom Earth

TEMPERATURE PROJECTIONS

Under a low emissions scenario projected temperature variations will remain contained at around +1°C, both by 2050 and 2100.
Under a high emissions scenario, with no reduction in GHG emissions, much greater temperature anomalies are expected by both 2050 and 2100.

TEMPERATURE ANOMALY

+6.5°C
+3.0°C
+1.7°C

+2.7°C
+2.2°C
+1.8°C

+0.4°C

-0.5°C

1985   2014   2050   2100
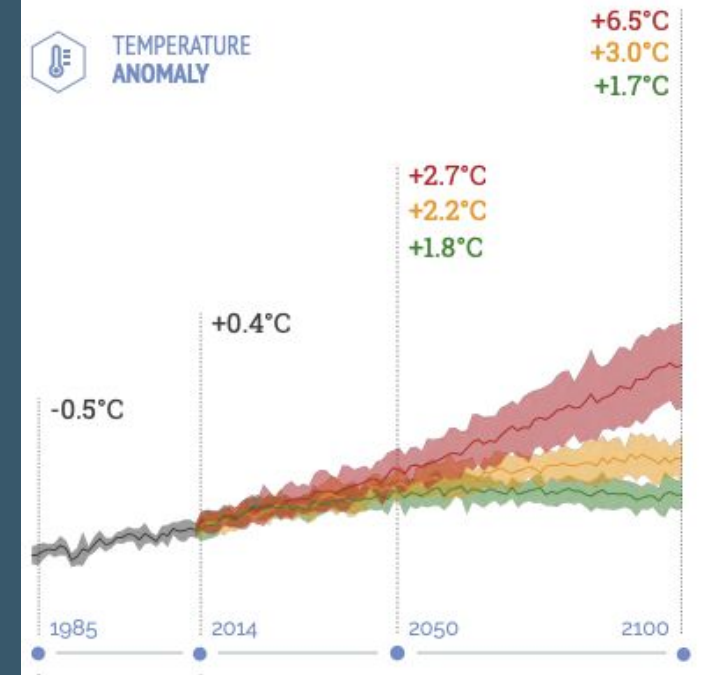
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"In the coming years, the success of travel and tourism businesses and destinations will be increasingly tied to their ability to manage and operate under even greater ecological threats"

– World Economic Forum Travel & Tourism Index

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Resilience - the "new sustainability"

Residents cool off at a pool in Jinan in eastern China's Shandong province.
Photograph: Ng Han Guan/AP

Community resilience refers to the ability of local communities to adapt, learn, and self-organize in the face of challenges and disruptions, such as disasters or crises.

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Systems interdependence

Relationship between systems within a (host) community
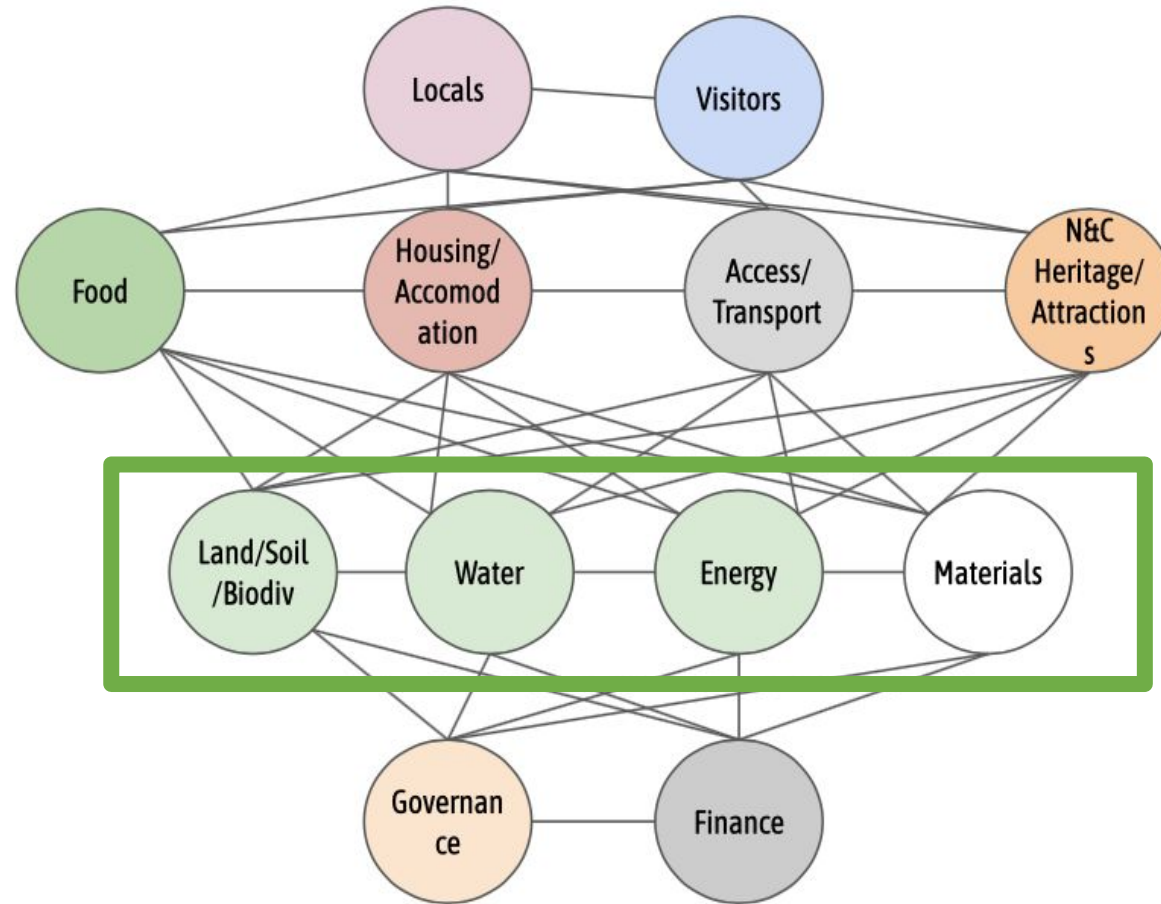
Stake/interest holders/consumers/producers

Interface between tourism & community

Environmental resources
Underlying conditions for sustainability

New value networks
Decoupling the economy from extraction

Diagram nodes: Locals, Visitors, Food, Housing/Accomodation, Access/Transport, N&C Heritage/Attractions, Land/Soil/Biodiv, Water, Energy, Materials, Governance, Finance

Climate action

ICHT Charter principle 7: Integrate climate action and sustainability measures in the management of cultural tourism and cultural heritage

- ➢ All cultural tourism stakeholders must take action to mitigate, reduce and manage climate impacts.

- ➢ Measures to support heritage conservation, biodiversity and natural ecosystems need to be a priority in planning, implementation and evaluation of tourism and visitor management strategies.

- ➢ Climate action strategies must consider traditional ownership, knowledge and practices.

- ➢ Climate change is calling for a transformational and regenerative approach to cultural tourism building resilient and adaptive communities and heritage places.

Climate action through tourism

China has already set these climate-related goals

By 2030
Peak carbon

By 2035
Per-head GDP to match
"moderately developed nations"*

By 2060
Carbon neutrality

*Defined as nations with a per-capita GDP of US$20,000 to US$40,000

中外对话
China Dialogue

Service enterprises catering, entertainment and hotel industries shall adopt products that economize on energy, water and materials and are conductive to protecting the environment, and reduce the use of or do not use products that may waste resources and pollute the environment. New service enterprises in catering, entertainment and hotel industries established after the Law is put into effect shall adopt technologies, equipment and facilities that economize on energy, water and materials and are conductive to protecting the environment.
Article 26, Circular Economy Promotion Law (2008)

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The transformative practice journey

From "sustainable" tourism in an growth dependent economy to energy positive tourism in a regenerative economy

8 DECENT WORK AND ECONOMIC GROWTH

√MAST
Assessments and mapping exposing complexity and opportunities

Energy production:
Renewable energy
Ecosystem services

7 AFFORDABLE AND CLEAN ENERGY

a regenerative circular approach

stewardship of commons

resilience

tourism serving communities

distributed and collaborative governance

values based success indicators

community empowerment

Practice

Extractive   *Green*   *Sustainable*

SUSTAINABLE DEVELOPMENT GOALS

Practice

a linear, growth based approach

exploitation of commons

vulnerability

communities serving tourism

top down and exclusive

growth based success indicators

community disempowerment

13 CLIMATE ACTION

Generative
- Contributing to the local community

Restorative
- Restoring social & ecological systems to a healthy state

Regenerative
- Enabling social & ecological systems to evolve

Energy consumption:
Fossil energy
Ecosystem services

TARGET 8·4
IMPROVE RESOURCE EFFICIENCY IN CONSUMPTION AND PRODUCTION

TARGET 9·4
UPGRADE ALL INDUSTRIES AND INFRASTRUCTURES FOR SUSTAINABILITY

ECONOMIC TRANSITION

ECONOMIC TRANSFORMATION

Based on Bill Reed (2007) and Daniel Christian Wahl (2019), World Heritage Catalysis (2022), Circular Economy Coalition (2024)

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Towards environmental sustainability

Good practice is not a status - it's and ongoing commitment to learn and improve practice.

Through regular use of UNESCO's Visitor Management Assessment & Strategy Tool (VMAST) World Heritage sites in Gansu will become catalysts for positive change through

Contribution to environmental sustainability, climate change mitigation & adaptation

(VMAST Goal B)

HOME	ASSESSMENT	APPRAISAL	STRATEGY
A. Governance & management	B. Environmental sustainability	C. Social & cultural sustainability	D. Economic sustainability

Goal B:
CONTRIBUTION TO ENVIRONMENTAL SUSTAINABILITY, CLIMATE CHANGE MITIGATION & ADAPTATION
Score: 0%

B1 Protection of sensitive environments (_ %)

B2 Protection of wildlife (_ %)

B3 Waste management (_ %)

B4 Water security and access (_ %)

B5 Energy conservation (_ %)

B6 Light, noise and visual pollution (_ %)

B7 Low-impact travel and transport (_ %)

B8 Carbon footprint (greenhouse gas emissions) (_ %)

B9 Climate change adaptation (_ %)

B10 Environmental risks (_ %)

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谢谢大家！

Cecilie Smith-Christensen

Word Heritage Catalysis

如果大家有任何疑问，欢迎通过邮件联系我

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