



living planet | BONN symposium | 23-27 May 2022

TAKING THE PULSE
OF OUR PLANET FROM SPACE



GEO's URBAN HERITAGE CLIMATE OBSERVATORY

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Co-chair, GEO Programme Board
Co-lead, Urban Heritage Climate Observatory

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→ THE EUROPEAN SPACE AGENCY

Current Landscape



The urgency of Climate Change



The untapped potential of Earth Observations



Connecting the dots...



The importance and vulnerability of Cultural Heritage



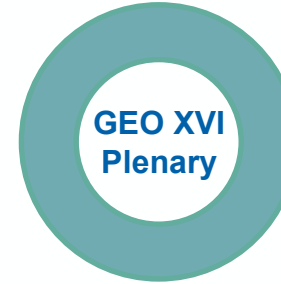
The prompt need for Urban Resilience





Sustainable Development Goals

GEO engagement priorities



11/19

G(EO) role in CH by the Head of the Greek Delegation Team



06/20

GEO Community Activity co-led by UNESCO-WHC & Greek GEO



04/21

2-day event



PARIS2015
UN CLIMATE CHANGE CONFERENCE
COP21-CMP11

Climate Action

GEO GROUP ON EARTH OBSERVATIONS

Urban Resilience



Disaster Risk Reduction

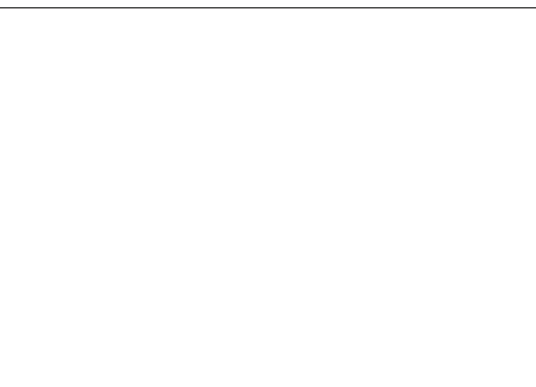
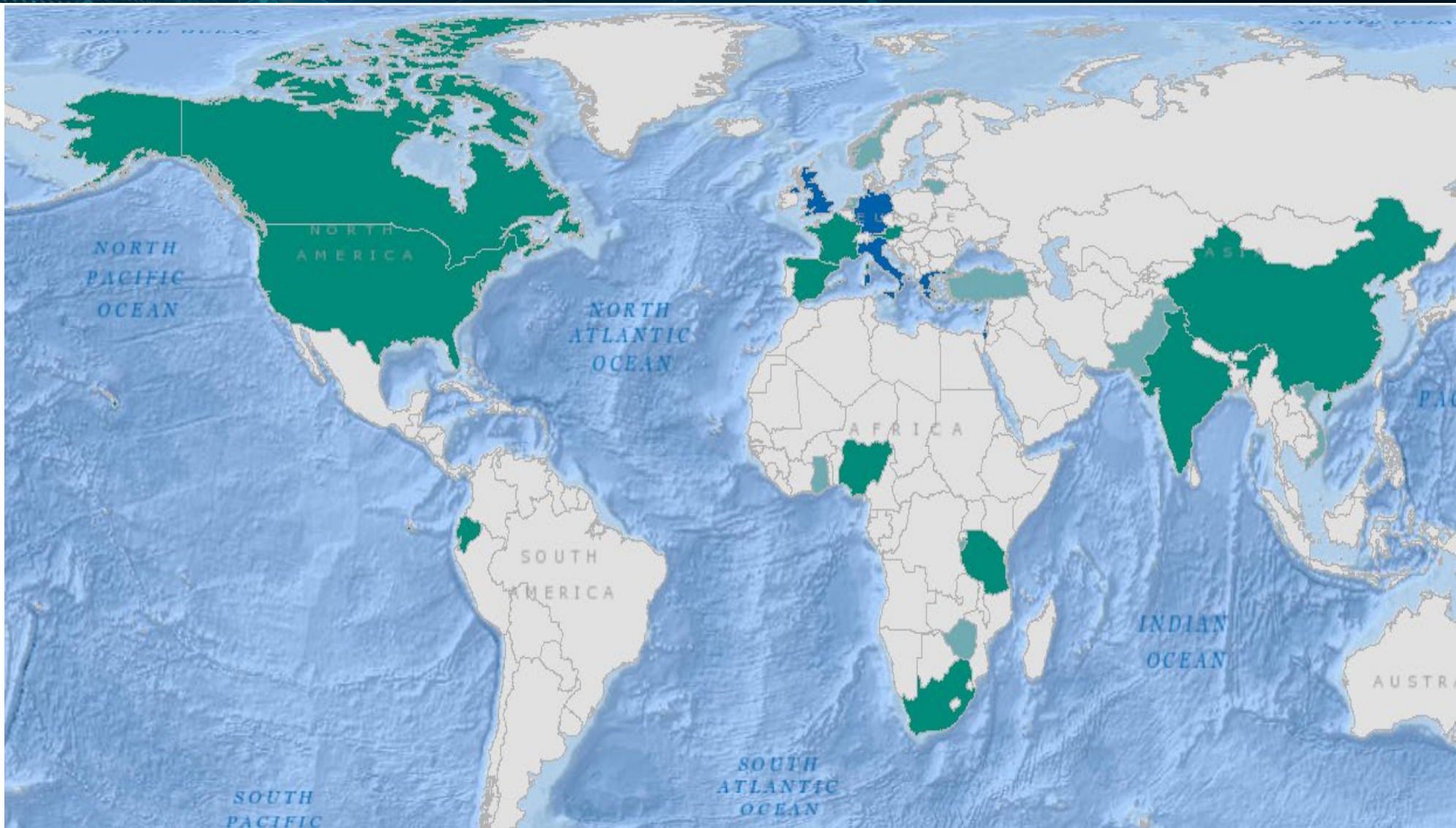
SENDAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030



GEO's URBAN HERITAGE CLIMATE OBSERVATORY



URBAN HERITAGE
CLIMATE OBSERVATORY



75 Organizations



→ THE EUROPEAN SPACE AGENCY

UHCO's Objectives

Enrich & modernize processes for the preservation, monitoring, management of urban heritage exploiting EO

Bottom up approach to inform global decisions & develop a global service to assist local practitioners in tackling climate change impacts to urban heritage

Communicate and advocate around climate action



Adopt a common language to raise awareness about the nexus:
Climate Change-Urban Resilience-Cultural Heritage



From global to local



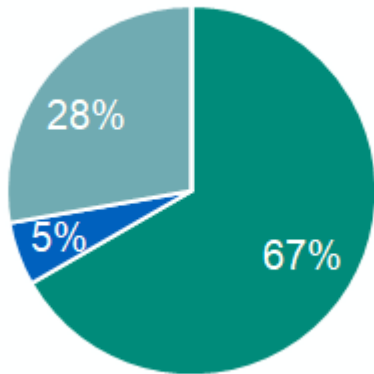
Mapping the vulnerability of cultural and natural monuments/sites from natural and anthropogenic climate change impacts



Selecting Pilot World Heritage Cities

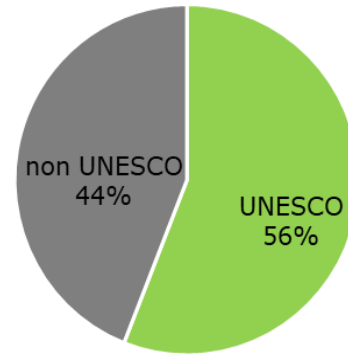


UNESCO State Of Conservation List

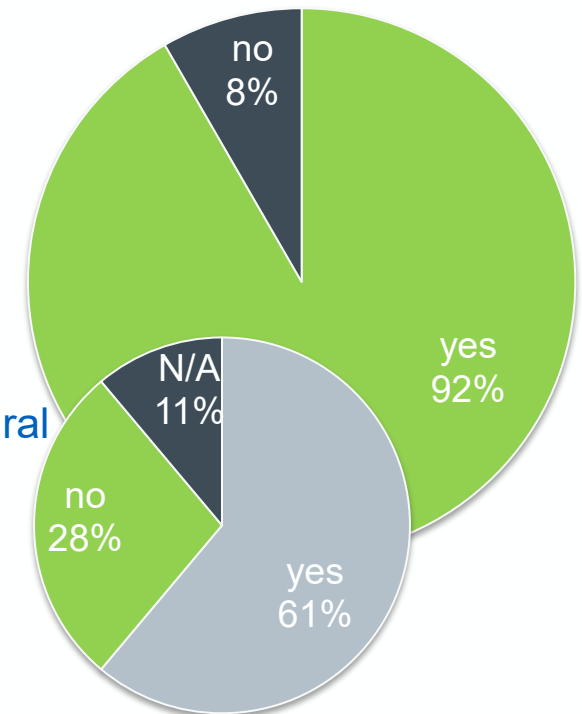


■ Unesco's World Heritage List ■ Unesco's Tentative Lists ■ No

Heritage at risk



National Adaptation Plan strategy or framework



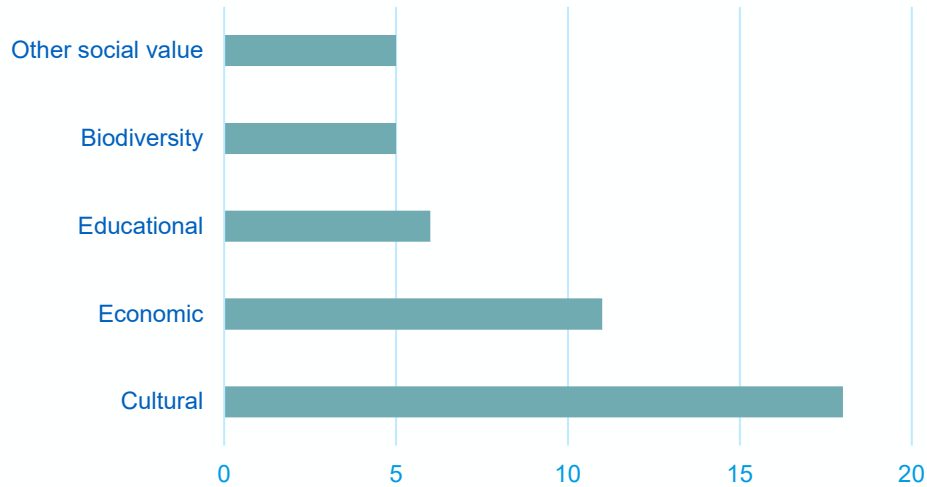
Dedicated Cultural or Natural heritage chapter/sector



Selecting Pilot World Heritage Cities



City/Urban Complex Values



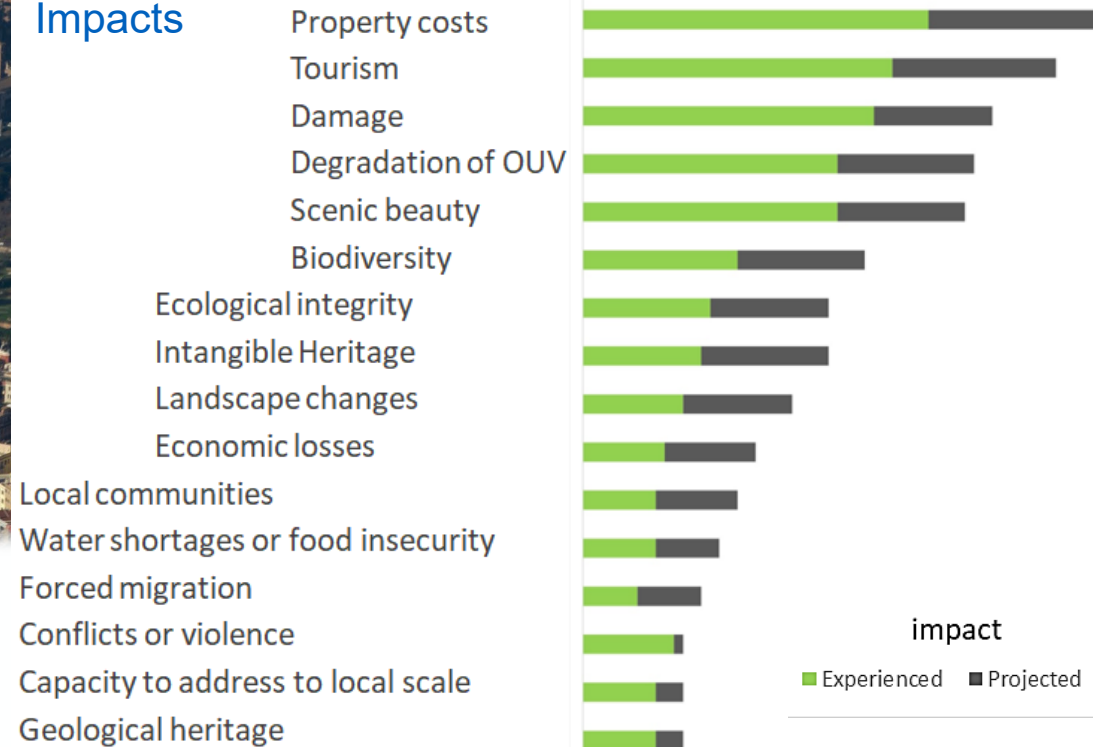
Impacted values



Mapping the vulnerability of cultural and natural monuments/sites from natural and anthropogenic climate change impacts



Impacts



EO Applications

Laboratory Sites



URBAN HERITAGE CLIMATE OBSERVATORY

Identification

Prioritization

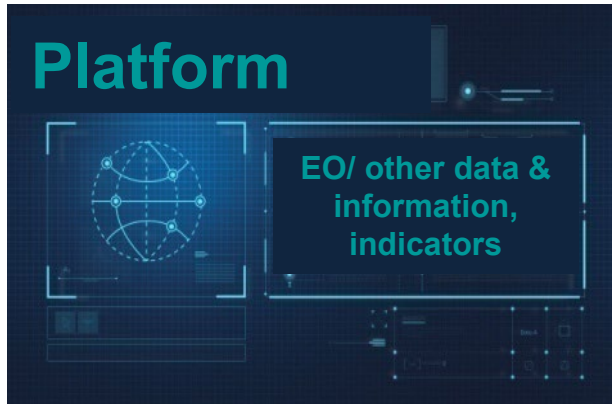
Piloting

Refinement

Platform

Urbino (Italy)

UNESCO World Heritage Canopy
(good practices incorporating heritage conservation into sustainable development)



©UNESCO

- Environmental and SE data for risk and vulnerability
- Emission inventories to support mitigation strategies
- Geospatial information on population, open space in cities, land use/change and land consumption, in support of urban and rural planning
- Efficient sustainable agriculture systems

EO Applications

UNESCO World Heritage Canopy
(good practices incorporating heritage conservation into sustainable development)

Laboratory Sites



Identification

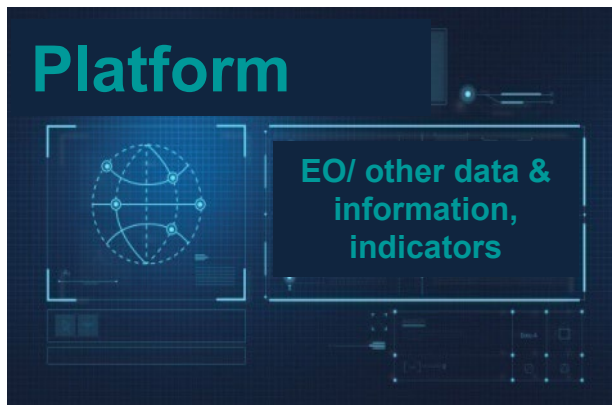
Prioritization

Piloting

Refinement

Platform

Grand-Bassam (Côte d'Ivoire)



- Disaster Risk Mng plans, building local capacity for resilience
- Integrating the local community in new techniques to monitor climate and non-climate variables
- Monitor water availability, quality and distribution and other properties of the local ecosystems

EO Applications

Laboratory Sites



Identification

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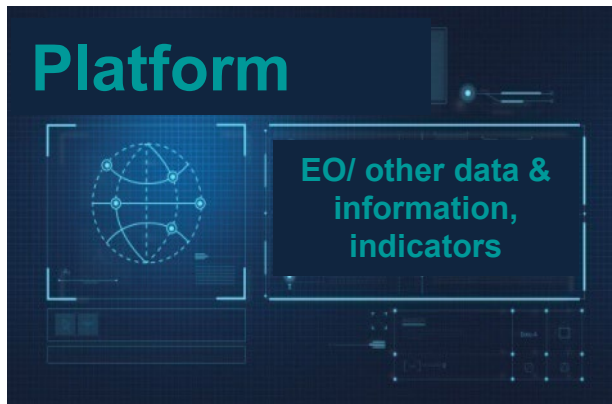
UNESCO World Heritage Canopy
(good practices incorporating heritage conservation into sustainable development)

George Town (Malaysia)



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- Integration of heritage into the urban development plan
- Monitor the urban heat island effect over cities and support the design of NBS
- Reconstruction of existing green/blue areas in built-up zones





World
Heritage
Centre



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Urban Heritage Climate Observatory

Thank you!

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