



UN Decade Collaborative Centre for Coastal Resilience

Andrea Valentini, Chief Scientist - DCC-CR, University of Bologna

"Coastal Resilience – projects and actions within the UN Ocean Decade“

Webinar - September 27, 2023



2021 United Nations Decade
2030 of Ocean Science
for Sustainable Development



UN Decade
Collaborative Centre
for COASTAL
RESILIENCE



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA
DEPARTMENT OF PHYSICS AND ASTRONOMY
"AUGUSTO RIGHI"



Regione Emilia-Romagna

Heavy urbanisation of the coastal strip in the last century

More than 2 billion people live within 100 km of the coast

Dependence of human populations on healthy coastal marine and estuarine environments

These coastal environments provide critical ecosystem services that are essential to human well-being.

Background



Hilton Lagoon, Hawaii by Mark Makowski - <https://www.nationalgeographic.org/>

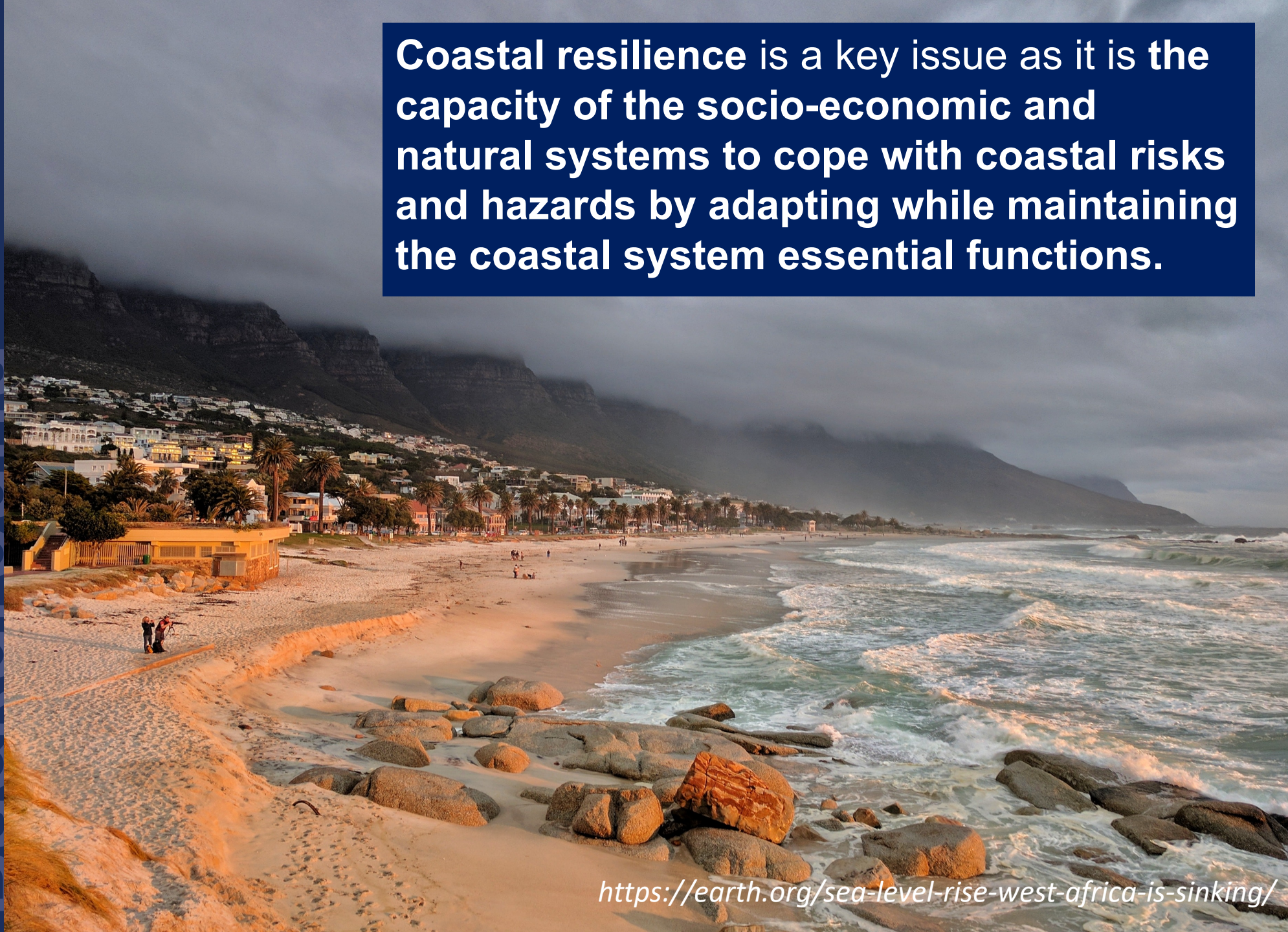
The health and economic development of coastal communities are under serious threat from a range of factors
climate change, pollution and other coastal hazards



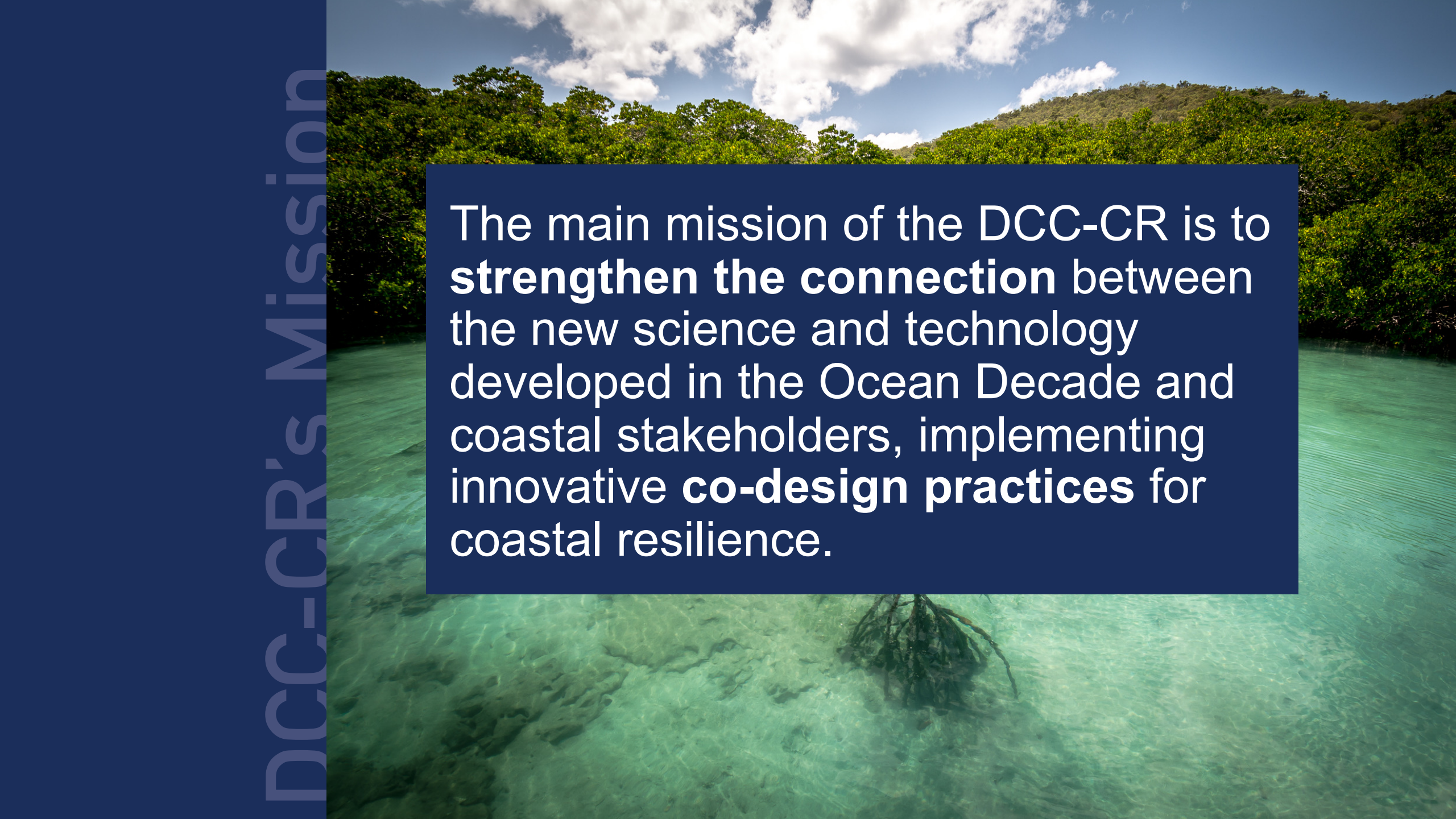
Background

Coastal resilience is a key issue as it is the capacity of the socio-economic and natural systems to cope with coastal risks and hazards by adapting while maintaining the coastal system essential functions.

Background



<https://earth.org/sea-level-rise-west-africa-is-sinking/>



The main mission of the DCC-CR is to **strengthen the connection** between the new science and technology developed in the Ocean Decade and coastal stakeholders, implementing innovative **co-design practices** for coastal resilience.

DCC-CR's strategic objectives



IMPROVE SCIENCE INFORMATION FOR ALL

Transform our understanding, improve monitoring and prediction, and fill knowledge gaps through coordination and new actions.



ENHANCE STAKEHOLDER ENGAGEMENT

Raise awareness, from coastal communities to IOC-UNESCO and its Member States, about actionable science during the Decade



PROMOTE EQUITABLE EDUCATION

Make the findings of the Decade Actions accessible through training, open access publications and reference catalogs



UPHOLD ENVIRONMENTAL JUSTICE FOR COASTAL COMMUNITIES

Conduct a thorough literature review and fieldwork on selected cases in the Global South

DCC-CR's ongoing activities



IMPROVE SCIENCE
INFORMATION FOR ALL

*White paper "The future of Coastal Resilience"
Knowledge HUB for Coastal Resilience*



ENHANCE STAKEHOLDER
ENGAGEMENT

*Newsletter, webinars and survey for coastal
hazards
Mapping of stakeholders*



PROMOTE EQUITABLE
EDUCATION

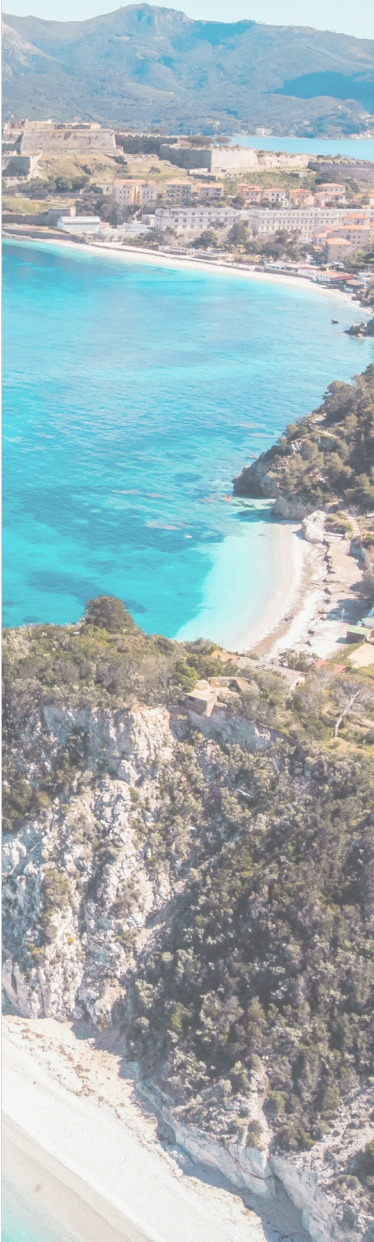
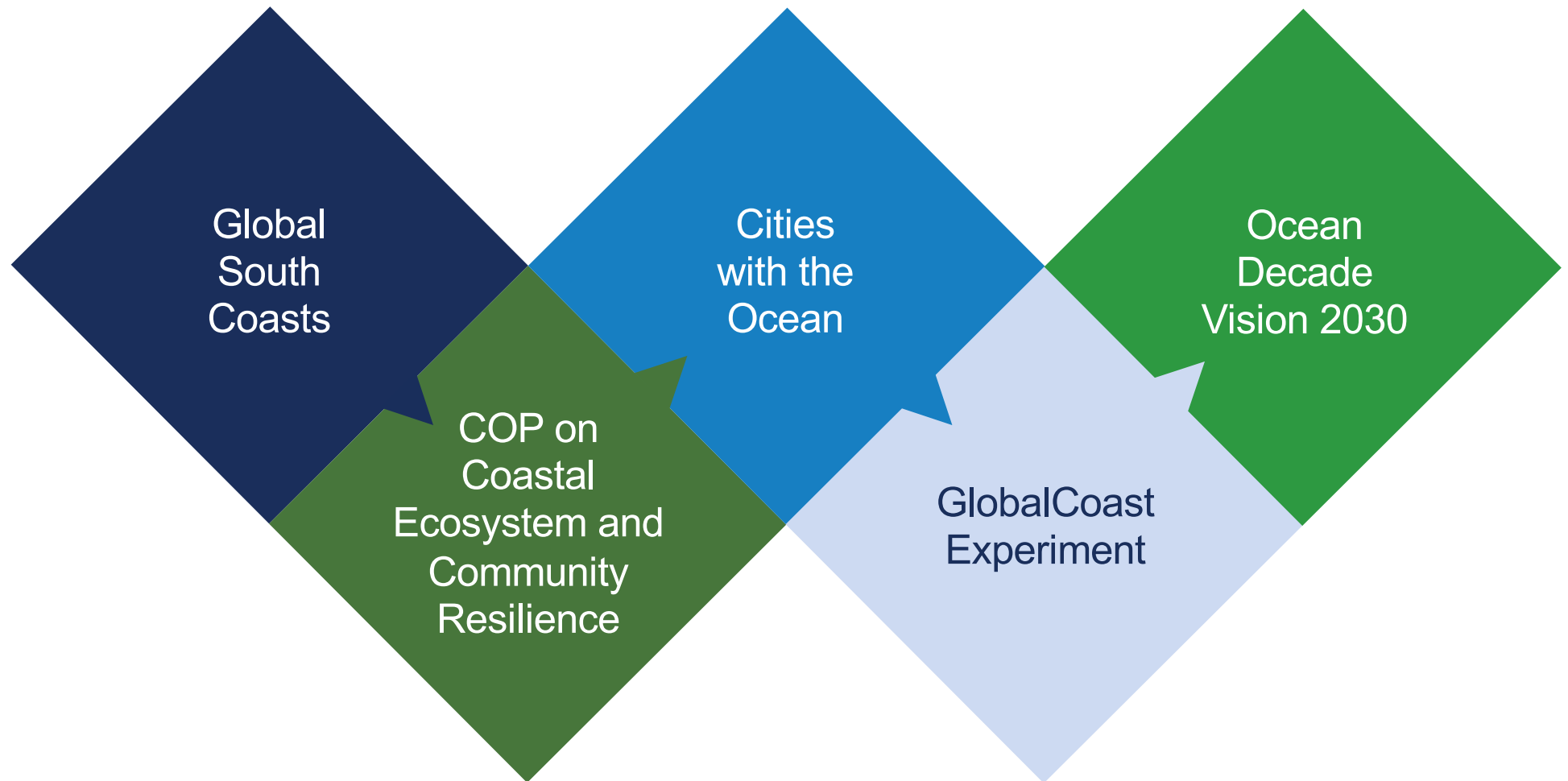
First training activity on coastal resilience



UPHOLD ENVIRONMENTAL
JUSTICE FOR COASTAL
COMMUNITIES

*Literature review coastal resilience and
environmental justice*

DCC-CR's Cross-cutting activities



Ocean Decade Vision 2030: Increase resilience to coastal hazards

- Participatory and iterative process launched by Decade Coordination Unit in April 2023
- To set **strategic ambition** and associated **milestones and targets** for each of the ten Decade **Challenges**
- Ten Working Groups led by co-chairs – **Nadia Pinardi and Srinivasa Kumar (DCC-IOR) co-chairing WG6**
- Co-chairs to establish WG and workplan and to coordinate draft **White Paper** which will be presented at **UNODC 2024**.

UNDRR Global Assessment Report On Disaster Risk Reduction (GAR)

<https://www.undrr.org/gar/gar2023-special-report>



**GAR Special Report 2023:
Mapping resilience for the
Sustainable Development
Goals**

Disasters are reversing global development. Urgent action is needed to build resilience into every decision we make.

Growing inequities and pressures on the planet are reversing hard-won development gains.

Cities with the Ocean – UN Ocean Decade Initiative

An initiative within the Ocean Decade, to support the co-design and uptake of ocean science at the city level.



- Create a platform to connect coastal cities and Decade Actions, **assess their needs** and develop an **ocean science toolbox**
- **Stimulate innovation** to support the sustainable development of coastal cities.

Town Hall @ Ocean Sciences (February 18-23, 2024) organized by DCC-CR for few Coastal Cities to meet with the science community

COP Coastal Ecosystem and Community Resilience

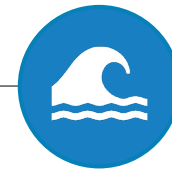
- 155 members on the [Ocean Decade Network](#) page
- Created in 2021 by the teams of the Ocean Cities, Mega Delta and Global Estuaries Monitoring Programmes
- Goal: offer an **open space** in which to debate and **exchange best practices** for coastal areas around the world
- Prospective activities: webinars, working groups, thematic workshops
- Organised in 4 working themes:



Community
Engagement



Place and
Culture



Coastal
Ecosystems
and Resilience

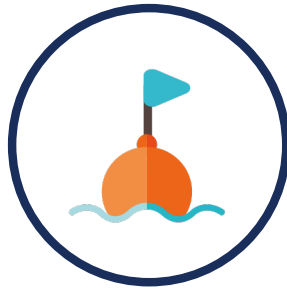


Socio-economic
and governance
issues

!!! only for ocean decade action members !!!

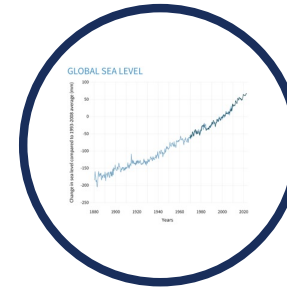
GlobalCoast – CoastPredict’s Global Coastal Ocean Experiment

GlobalCoast will demonstrate a fit-for-purpose coastal observing and prediction system that will deliver innovative products and services for coastal resilience in collaboration with local stakeholders.



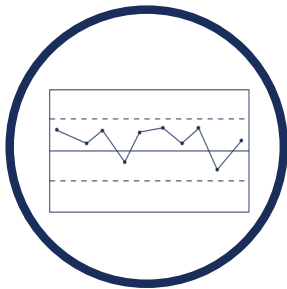
New technologies

for the coastal observing system will be implemented, innovated and tested at each pilot site to validate/calibrate regional coastal models



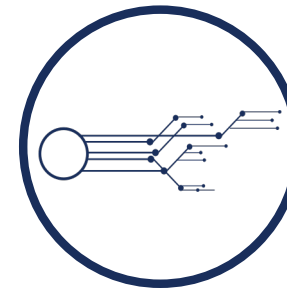
100 years projections

will be produced by implementing regional to coastal climate limited area and AI-based models to downscale climate scenarios



Regional-coastal limited area models & AI-based models

will be implemented to assess the range of predictability and understand uncertainties, and provide an impact ensemble framework



High resolution reanalysis to train AI networks

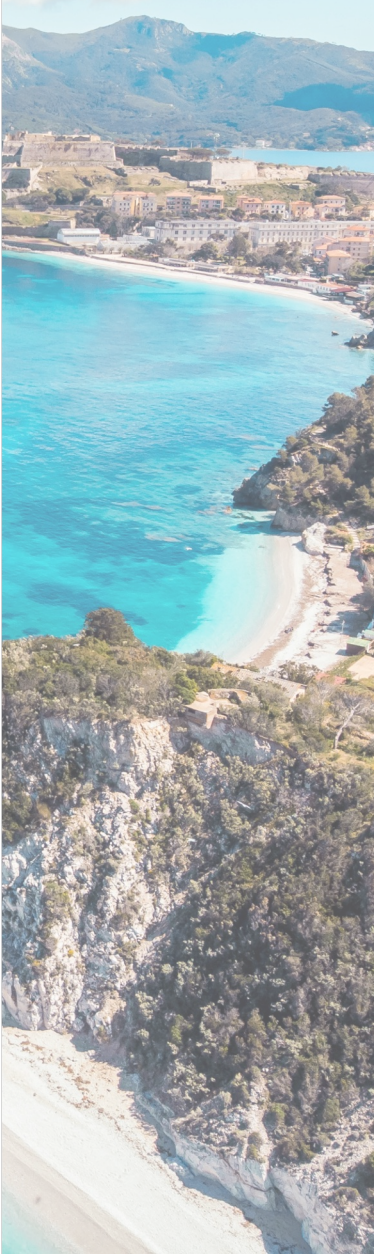
will be produced at the coastal scale



<https://www.coastpredict.org/globalcoast/>

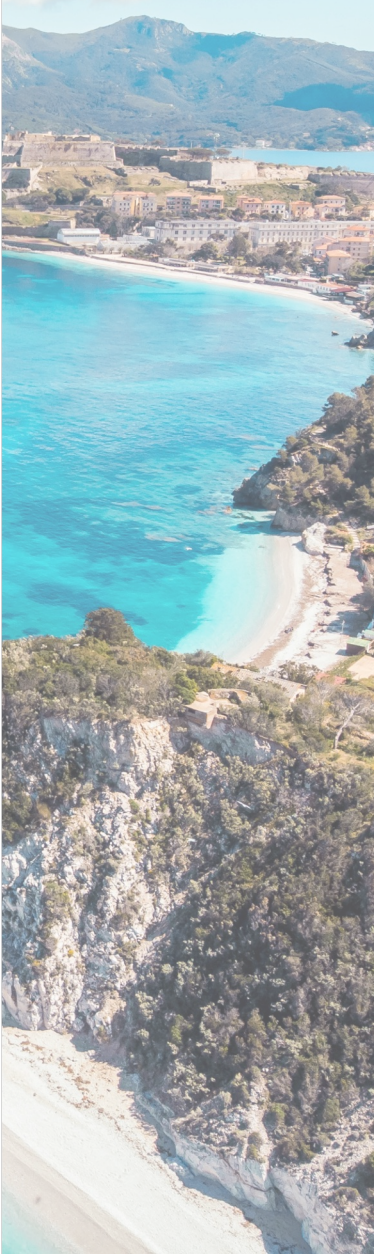
!!! Deadline 4 October !!!





Coming next

- **12-13 December 2023 – Bologna, Italy**
 - Workshop “Sharing best practices in the sustainable management of coastal environments”
 - Presentation of local experiences in the Emilia-Romagna region
 - Comparing regional best practices around the world
 - Perspective and approaches for coastal resilience
 - In-person meeting with DCC-CR Programme Committee
- **18-23 February 2024 – New Orleans, USA**
 - Submitted a proposal for a townhall meeting: “A Dialogue on Coastal Cities and Coastal Community Resilience”
- **8-12 April 2024 – Barcelona, Spain**
 - We will propose two satellite events at the UN Ocean Decade Conference



Get in touch

The DCCs and DCOs network has to build the next generation infrastructure for the UNESCO-IOC contribution to the Sustainable Development Goals.

The DCC-CR is ready to go the last mile: to increase coastal resilience for a more prosperous and equitable future for human society.



**How to Engage
DCC-CR website**
<https://shorturl.at/bhzi9>

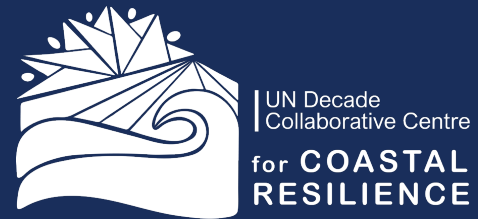


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<https://shorturl.at/fzAO7>



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<https://centri.unibo.it/dcc-cr/en>

difa.dcc-cr@unibo.it

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UNIVERSITÀ DI BOLOGNA

