



STATEMENT FROM "A DIALOGUE ON COASTAL CITIES AND COASTAL COMMUNITY RESILIENCE" TOWN HALL

Ocean Sciences Meeting 2024 - New Orleans

February 20th, 2024



2021 United Nations Decade
of Ocean Science
2030 for Sustainable Development



UN Decade
Collaborative Centre
for COASTAL
RESILIENCE



Summary and expectations

The Town Hall event, titled 'A Dialogue on Coastal Cities and Coastal Community Resilience,' provided a platform for in-depth discussions among scientists and representatives of coastal municipalities regarding the unique challenges faced by coastal cities.

Various hazards, such as sea-level rise, storm surges, coastal erosion, and urban water pollution and treatment, pose significant threats to cities and towns in coastal areas worldwide. In addition to addressing the socio-economic stresses these areas are undergoing, it is essential to understand the specific climate and coastal hazards in their local dimensions. As we develop strategies and paradigms to conceptualize coastal resilience, a new roadmap needs to be laid out to support coastal cities with the most efficient and sustainable solutions our scientific community can provide.

The Town Hall was organized by the Decade Collaborative Centre for Coastal Resilience, one of the coordinating structures of the UN Decade of Ocean Science for Sustainable Development. This event's objective was to bridge the gap between representatives of coastal cities and coastal managers, on one hand, and producers of scientific products and services, on the other. As an important outcome, the Town Hall dialogue will inform the 'Cities with the Ocean' Platform currently under development. This is an international initiative developed within the framework of the UN Ocean Decade, with the overarching goal to build a network of coastal cities and foster dialogue with Ocean Decade Actions, toward the development of a common set of solutions for coastal adaptation.

The recommendations put forth underscore the importance of a comprehensive approach to enhance coastal city resilience, advocating for collaboration, innovation, community empowerment, and well-informed policy decisions. The goal is to build sustainable, adaptive, and resilient coastal communities collectively.



Expected outcomes and recommendations

1

TRANSLATE SCIENTIFIC FINDINGS INTO ACTIONABLE KNOWLEDGE

Starting from the example of IPCC reports, the panelists identified the challenge of effectively translating critical scientific findings into practical applications for a broad range of coastal practitioners, including managers and policymakers. This discussion emphasized the significance of proper translation featuring an actionable science screen suggested both out of recent literature and reflecting comments in practitioner convenings to enable successful policy formulation and adaptation planning.

Recommendations:

- Ensure open, free and co-produced information/tools at the local scale that allow substantive and equitable interactions

2

EXPLORE CITIZEN SCIENCE FOR PROTECTING URBAN COASTAL ECOSYSTEM

Sponsoring citizen science projects is a way to involve urban communities in the production of knowledge and raise awareness. By addressing observational and monitoring gaps, these projects enrich data records and analyses with community-based knowledge.

Recommendations:

- Collaborate with municipal government bodies to create and jointly design adaptive monitoring programs for urban citizen science

3 COASTAL CITIES SOLUTIONS THROUGH THE DIGITAL TWIN APPROACH

To adapt to climate change and other risks it is necessary to plan a suitable combination of nature-based solutions and conventional engineering infrastructures. New methods to plan for optimal and efficient combinations using Digital Twin methods should be developed. This approach could serve as a pivotal interface that bridges ocean science and coastal management.

Recommendations:

- Develop Digital Twin methodologies for early warning systems and adaptation planning for coastal cities

4 DIFFERENT TYPES OF SCIENCE ARE NEEDED IN DIFFERENT CONTEXTS

It is necessary to adapt scientific communication to diverse communities such as elected officials, municipalities, educators and other stakeholders.

Recommendations:

- Develop communication strategies that consider science and stakeholder perspectives, to convey the problems and the solutions, mobilize citizens, and boost support

5 GLOBAL PARTNERSHIPS FOR RESILIENT AND SUSTAINABLE COASTAL CITIES

Networking coastal cities and communities to find common solutions emerged as a key need to advance science and technology for solutions and uphold environmental justice.

Recommendations:

- Establish a worldwide platform of coastal cities, ports and ocean researchers engaged in international cooperation, forming a co-creation hub for advancing science translation and resilience plans on the coast.



Contributors

This statement and the recommendations highlighted in this document have been the result of a conversation initiated with representatives of coastal cities organizations and Ocean Decade actions, who participated in the Town Hall as speakers:



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VILLY KOURAFALOU

Villy Kourafalou is Professor of Ocean Sciences at the University of Miami’s Rosenstiel School. She is an expert on coastal ocean dynamics with applications on predictions and forecasts that bring ocean influence to the coastal, land and urban environments. She co-chairs the UN Ocean Decade Program “CoastPredict: observing and predicting the Global Coastal Ocean.”



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Nadia Pinardi is Full Professor of Physical Oceanography at the University of Bologna and the Director of the Decade Collaborative Centre for Coastal Resilience. Her interests range from ocean numerical modelling and predictions to data assimilation, physical-biological interactions and pollutants.



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The DCC-CR is a Departmental Centre of the University of Bologna
and is funded by the Emilia-Romagna Region.



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