REIMAGINING BALTIMORE HARBOR

The recent tragic collapse of the Francis Scott Key Bridge has highlighted the critical importance of Baltimore Harbor to the region's infrastructure, environment, and economy. In response, the University of Maryland Center for Environmental Science (UMCES), through its Chesapeake Global Collaboratory (CGC), hosted "Baltimore Harbor in Context" on October 10, 2024. The event gathered diverse stakeholders and featured plenary talks, panel discussions, and interactive breakout sessions. The meeting aimed to lay the groundwork for a broader Baltimore Harbor Summit in 2025 and to promote collaborative solutions and a shared understanding of ongoing harbor improvement efforts. Keynote speakers included Dr. Bill Dennison (UMCES), Dr. Eric Schott (Institute of Marine and Environmental Technology), and Dr. Linwood Pendleton (Ocean Knowledge Action Network), alongside local and international panelists.

PANEL DISCUSSION INSIGHTS

Local insights on environmental justice and community engagement

Dr. Heath Kelsey of the Integration and Application Network (IAN) moderated the Baltimore Panel, featuring representatives from the Waterfront Partnership, IMET, Blue Water Baltimore, the Environmental Justice Journalism Initiative, and the University of Maryland Baltimore County. They spoke about their work in community engagement and harbor improvement efforts, focusing on the social aspects of environmental stewardship. The panel highlighted the following points on community-based work in Baltimore:

Panel from left to right: Adam Lindquist, Eric Schott, Bob Summers, Veronica Lucchese, and Andrew Miller. *Photo credit: Roshni Nair-Gonzalez, IAN UMCES*

- Prioritizing environmental justice by uplifting historically marginalized communities, ensuring equitable access to green and blue spaces, and including anti-gentrification policies in redevelopment projects is key.

- Promoting blue-green jobs and developing training programs linked to environmental restoration, sustainable development, and green infrastructure can create economic pathways for residents while advancing environmental goals.

- Using innovative tools like air quality sensors and eDNA can enable real-time monitoring and informed decision-making. Focusing on nature-based solutions, such as wetlands restoration, can enhance resilience against climate impacts.

- Collaborating across sectors and involving diverse communities in decision-making are critical actions to address the harbor's complex challenges and achieve equitable outcomes.

Photos below showing Bill Dennison, Linwood Pendleton, and Eric Schott addressing the audience. *Photo credit: Roshni Nair-Gonzalez, IAN UMCES*

Global lessons for Baltimore Harbor

The international panel was composed of the Coastal Ocean Assessment for Sustainability and Transformation (COAST) Card project leaders Dr. Nadaoka, Dr. Azanza, and Dr. Davidsen, World Harbor Project US coordinator Dr. Judy O'Neil, and Dr. Pendleton of Ocean KAN, and moderated by Dr. Vanessa Vargas-Nguyen of IAN. The panel shared insights on socio-environmental initiatives and diverse engagement strategies that could inform the Baltimore Harbor Summit such as:

Panel from left to right: Judy O'Neil, Kazuo Nadaoka, Pal Davidsen, Rhodora Azanza, and Linwood Pendleton. *Photo credit: Roshni Nair-Gonzalez, IAN UMCES*

- Building trusted relationships by involving local communities and respecting local knowledge is critical. Sustaining engagement and intentional, value-driven growth in networks avoids dilution and maintains effective collaboration.

- Utilizing community-led and adaptive methods engages diverse stakeholders, and aligning environmental goals with economic benefits for stakeholders motivates and sustains participation.

- Applying innovative tools and transdisciplinary approaches like the COAST Card project enable community co-design, fostering trust and informing better decision-making.

- Cultivating knowledge-sharing networks, like the World Harbour Project and Ocean KAN, promote successful restoration by combining local expertise with international best practices.

THE COAST CARD APPROACH

COAST Card's transdisciplinary and international approach to socio-environmental problem solving can serve as a model for the Baltimore Harbor initiative. The project uses innovative tools—socio-environmental report cards, system dynamics modeling and social network analysis, inclusive stakeholder and community engagement, and global collaboration—to tackle coastal and harbor challenges and empower local communities to advocate for policy changes and better resource management.

COAST Card brought together researchers, practitioners, and stakeholders from the US, Norway, Japan, India and the Philippines. Image from *Toolguide for stakeholder engagement in coastal communities (IAN Press, 2024)*

BREAKOUT DISCUSSION SUMMARIES

The two breakout discussions focused on identifying the engagement necessary for effective measurement of environmental and community priorities, envisioning a framework for how the summit can facilitate these efforts, and determining the stakeholders essential for meaningful conversations. Participants also developed a shared vision for Baltimore Harbor, emphasizing equitable access, environmental justice, economic opportunities, sustainable restoration efforts, and community empowerment.

Breakout Session 1: What are the metrics that matter to the community?

- Host listening sessions to identify which metrics matter most to residents, especially those impacted by environmental justice issues.
- Involve public health experts and local scientists to assess data gaps related to community health, such as contaminant levels in fish and water.
- Bring together environmental scientists, social scientists, and data experts to evaluate current monitoring methods and identify new data needs.
- Ensure alignment between data collection and policy needs by involving local and state policymakers in the discussion.
- Partner with local schools and universities to engage communities in data collection and environmental monitoring.

Breakout Session 2: Vision for the 2025 Summit

- Foster equitable participation and trust by tailoring engagement strategies to reflect Baltimore's diverse communities and social dynamics.
- Connecting environmental efforts with tangible community and economic results by demonstrating how harbor restoration can generate economic benefits, such as blue-green job creation
- Set measurable goals for the summit, such as improvements in water quality or job creation, and establish follow-up structures, such as progress updates or advisory councils, to ensure long-term impact.
- Ensure data transparency by making environmental information user-friendly and accessible to the public.

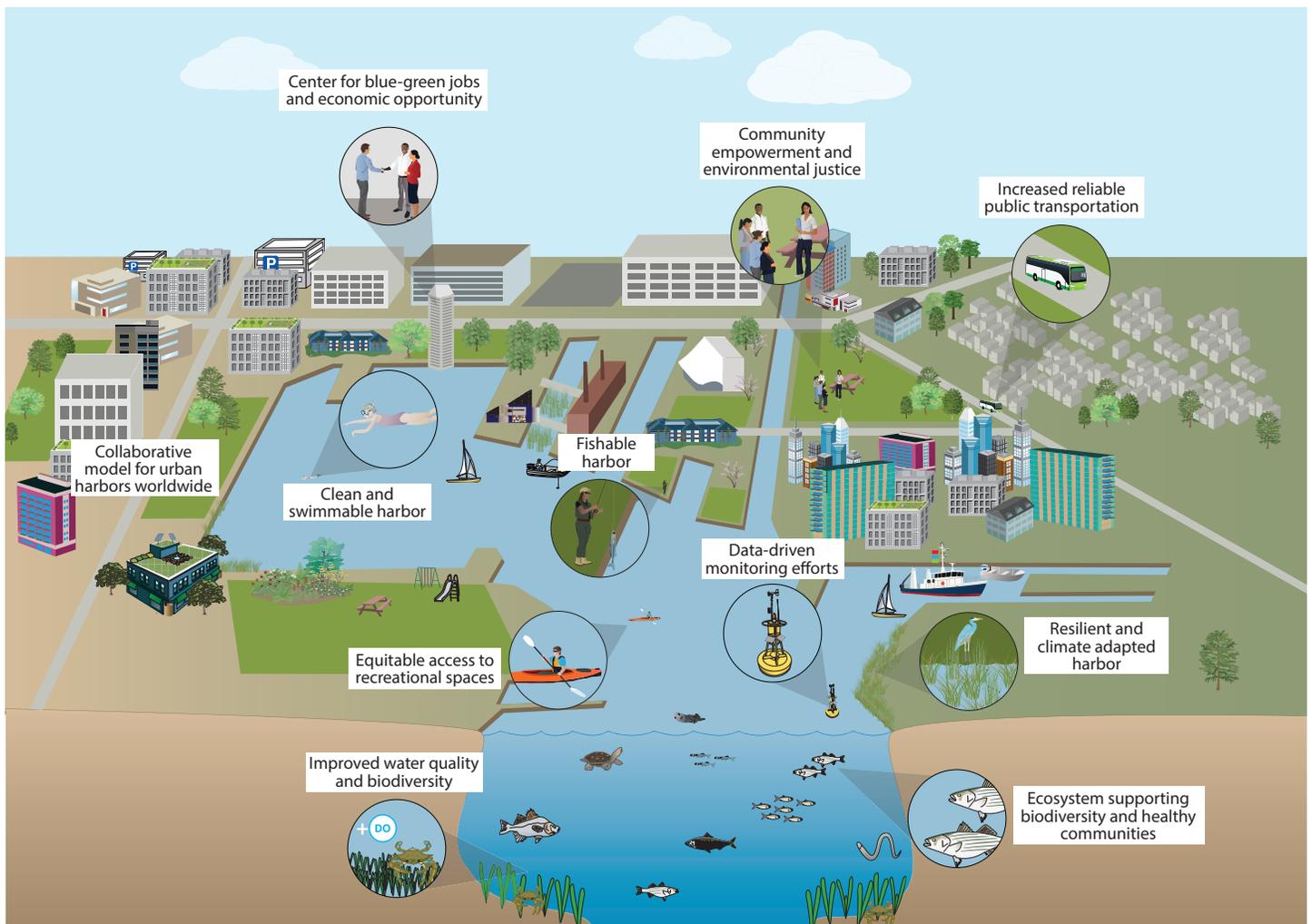## Whom should we invite to the summit?

Achieving the vision for Baltimore Harbor and ensuring the success of the summit will require a diverse coalition of stakeholders, including:

- Government representatives
- State and federal agencies
- Trans-disciplinary professionals
- Community members

- Citizen scientist groups
- College and school groups
- Non-profit organizations
- Academia and research institutions

Photos below showing the breakout session, where participants discussed community needs and the vision for Baltimore Harbor. *Photo credit: Roshni Nair-Gonzalez, IAN UMCES*
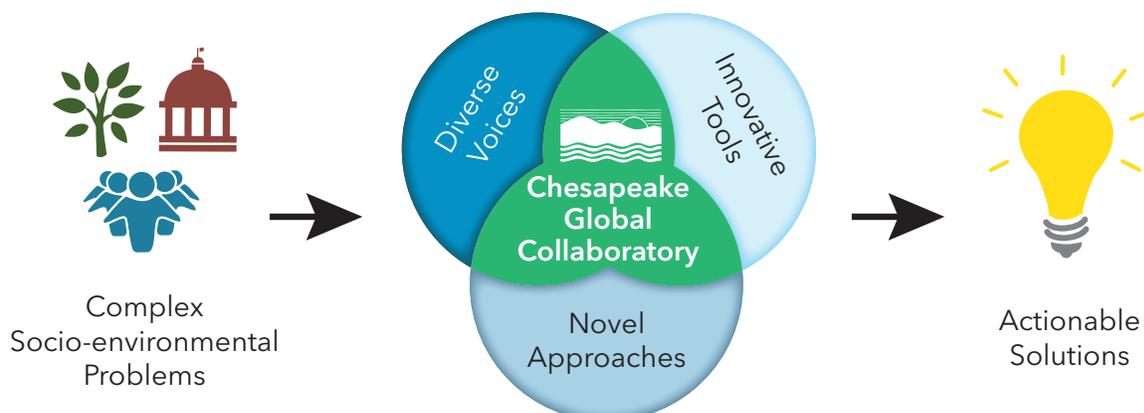
MOVING TOWARDS AN INTEGRATED VISION FOR BALTIMORE HARBOR

Center for blue-green jobs and economic opportunity

Community empowerment and environmental justice

Increased reliable public transportation

Collaborative model for urban harbors worldwide

Clean and swimmable harbor

Fishable harbor

Data-driven monitoring efforts

Resilient and climate adapted harbor

Equitable access to recreational spaces

Improved water quality and biodiversity

Ecosystem supporting biodiversity and healthy communities

Participants developed a collective vision for a clean, accessible, and resilient Baltimore Harbor that balances environmental, economic, and social priorities.

THE CHESAPEAKE GLOBAL COLLABORATORY APPROACH

The Chesapeake Global Collaboratory is leading the charge to reimagine Baltimore Harbor using diverse voices, innovative tools, and novel approaches. This commitment to inclusivity and innovation will be central to the success of the upcoming Baltimore Harbor Summit.

Complex Socio-environmental Problems

Diverse Voices
Innovative Tools
Chesapeake Global Collaboratory
Novel Approaches

Actionable Solutions

WHAT'S NEXT?

Setting the stage for a Baltimore Harbor Summit

The Baltimore Harbor Summit will build on the themes discussed at this scoping meeting. Key priorities include:

- Facilitate pre-summit engagement through surveys, listening sessions, and meetings to gather input from diverse communities.

- Develop a shared vision by aligning stakeholders on core goals and actionable pathways for the future of Baltimore Harbor.

- Bring together local and international experts and the community to gather data and identify gaps, creating a clear picture of the Harbor's current state and developing relevant environmental and social metrics.

- Strengthen partnerships between academic, governmental, and community organizations and ensure network sustainability to foster and sustain collaboration.

Participants of the Baltimore Harbor in Context Scoping Workshop in Baltimore, MD on 10 October 2024. *Photo credit: Thong Nguyen*

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