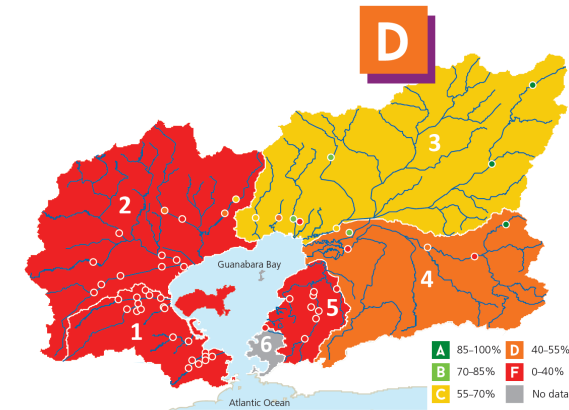
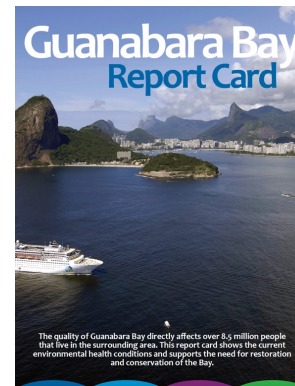
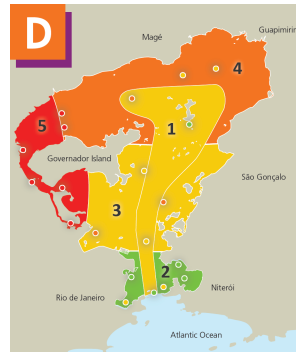


Science Communication and Report Cards



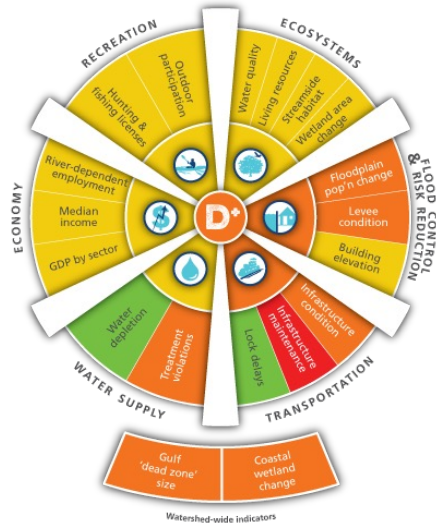
Alexandra Fries

University of Maryland Center for Environmental Science

March 21, 2023

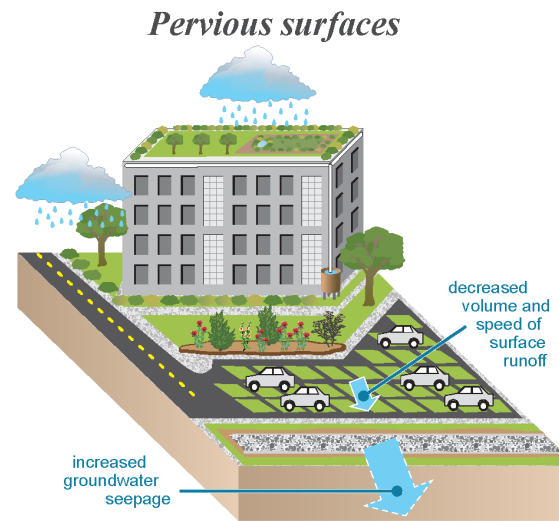
Report cards use science communication to tell a story

Synthesize



Interpreted & synthesized data

Visualize



Sense of place: who, what, where, when, how & so that you can tell them why

Contextualize

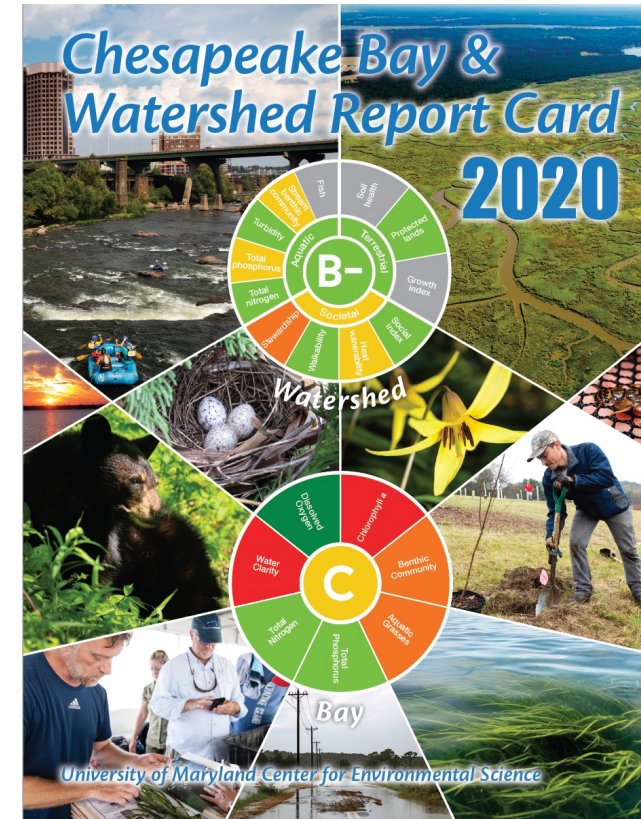


So what?

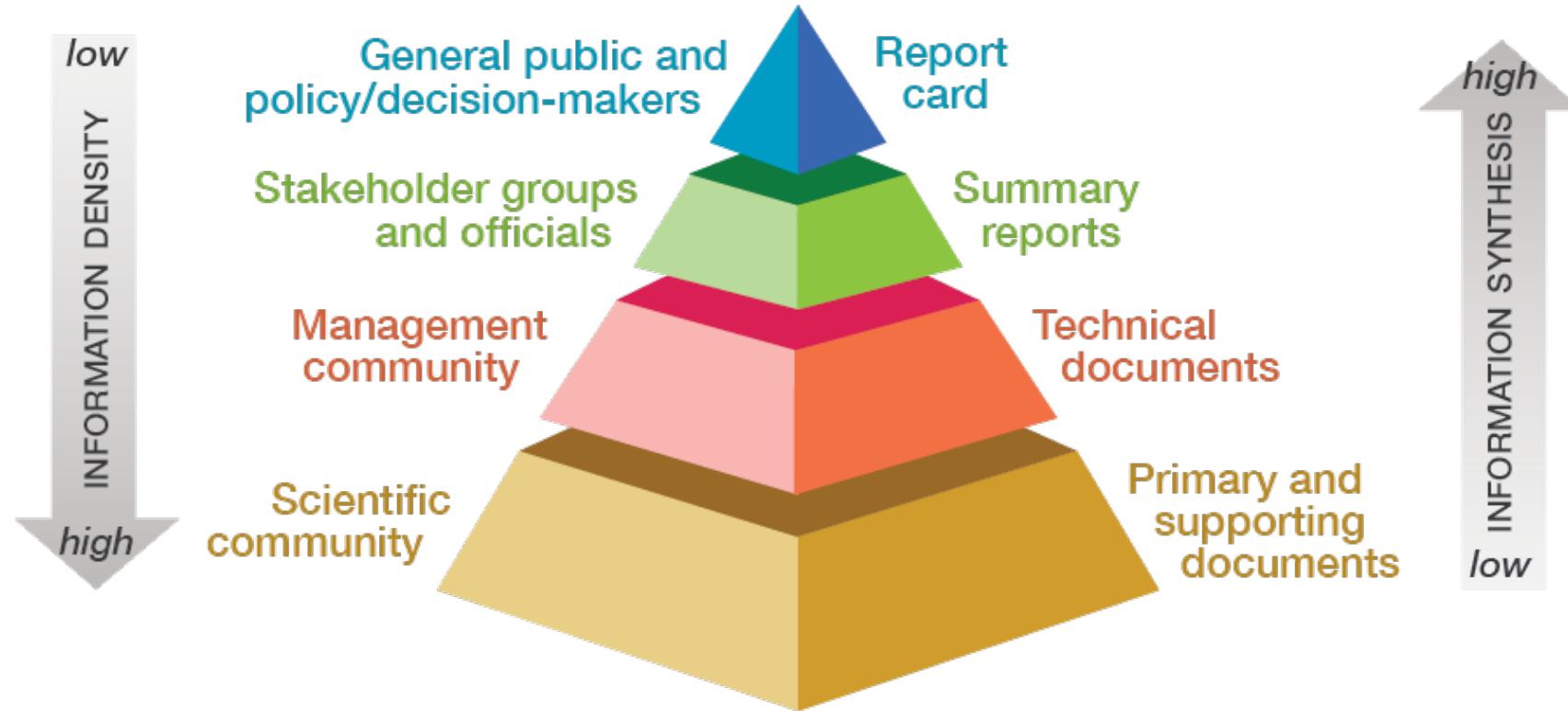


What is a socio-environmental report card?

- Broad-level assessment of a region or system
- Communicates complex information
- Based on real data: transparent and defensible
- Provides accountability
- Engages communities

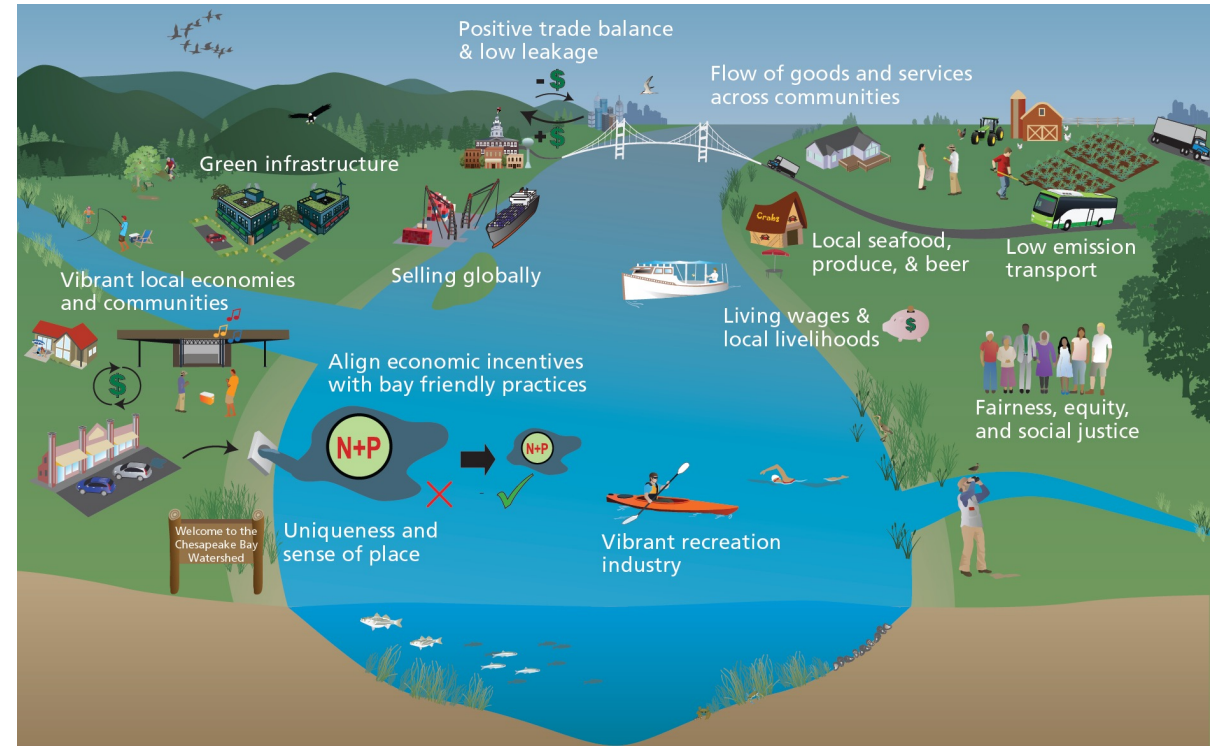


Socio-environmental health report cards

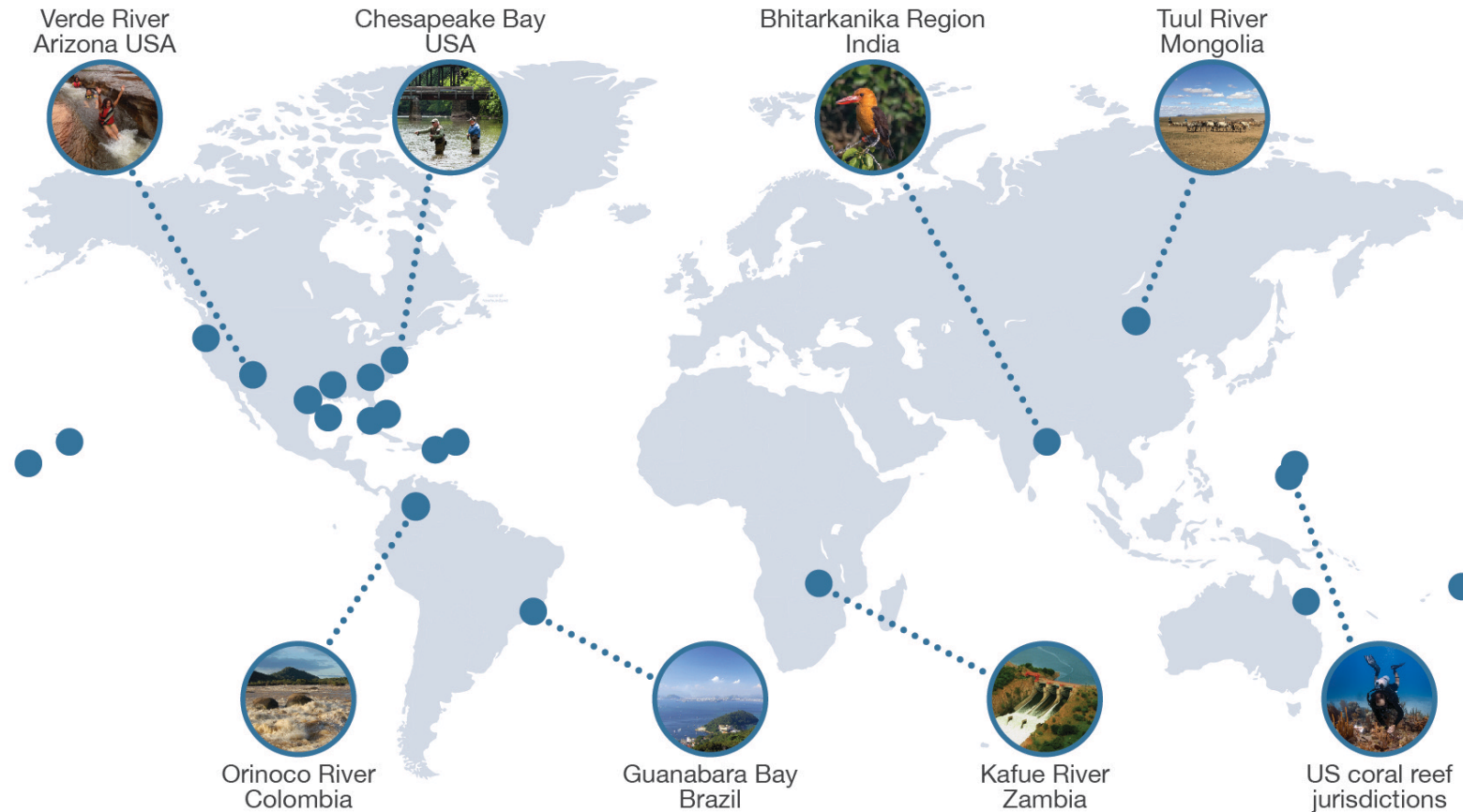


Report cards have evolved over two decades

- Expanded geographically (systems of report cards, larger ecosystems)
- Expanded thematically (include social, economic, and environmental indicators)
- Expanded emphasis (collaborations, co-production, raising the grade, training)



Evolution is a result of numerous report card projects



We use a 3-phase co-design process focusing on:

- Project Planning
- Report Card Development
- Improvement of the system

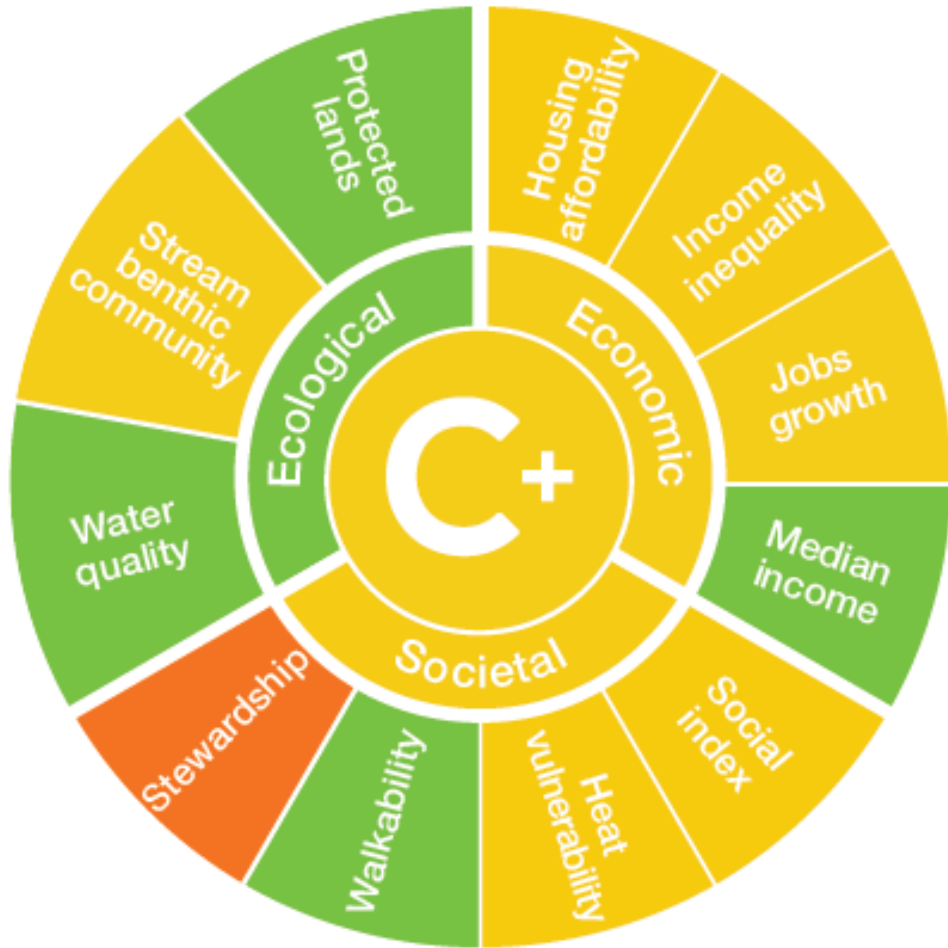


New Indicator Directions

- Leading Indicators
- Local Economy
- Governance
- Resilience
- Sustainability
- Justice, Equity, Diversity, and Inclusion



Chesapeake Bay & Watershed Report Card

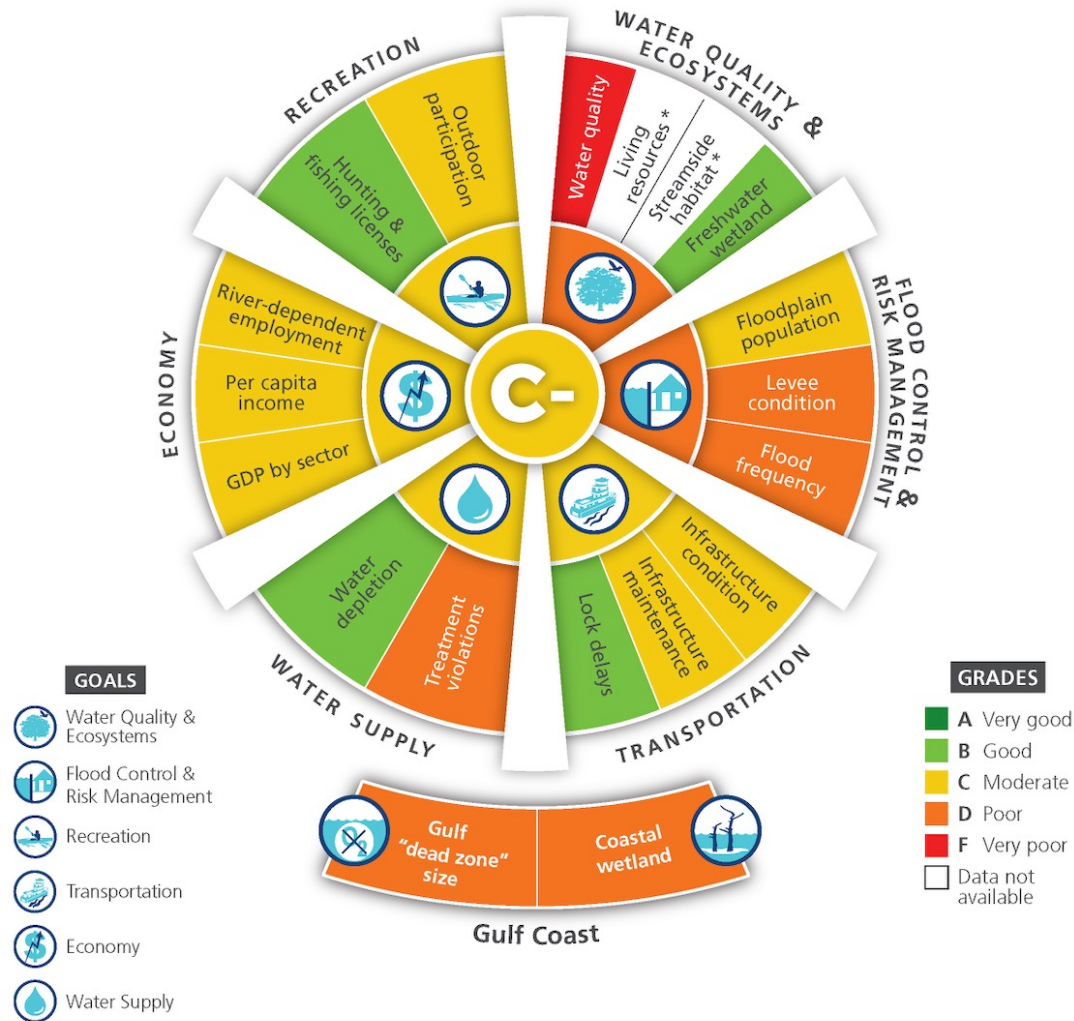


Indicators for

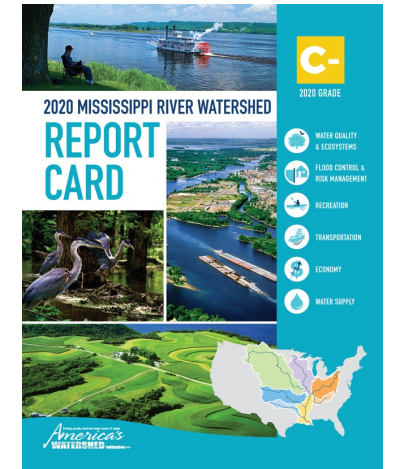
- Ecological
- Economic
- Societal



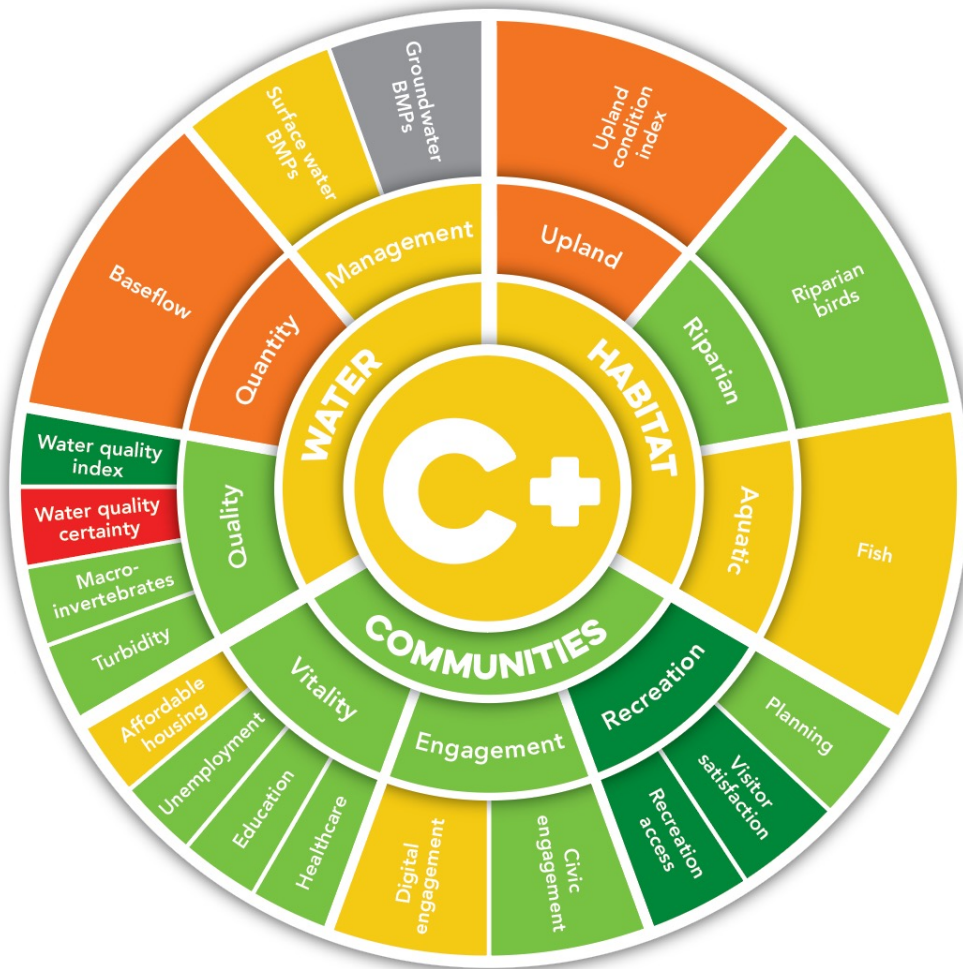
Mississippi River Report Card



- Indicators for
- Water Quality & Ecosystems
 - Flood Control & Risk Management
 - Transportation
 - Water Supply
 - Economy
 - Recreation

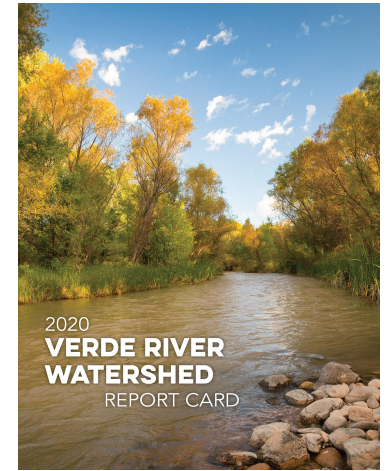


Verde River Report Card

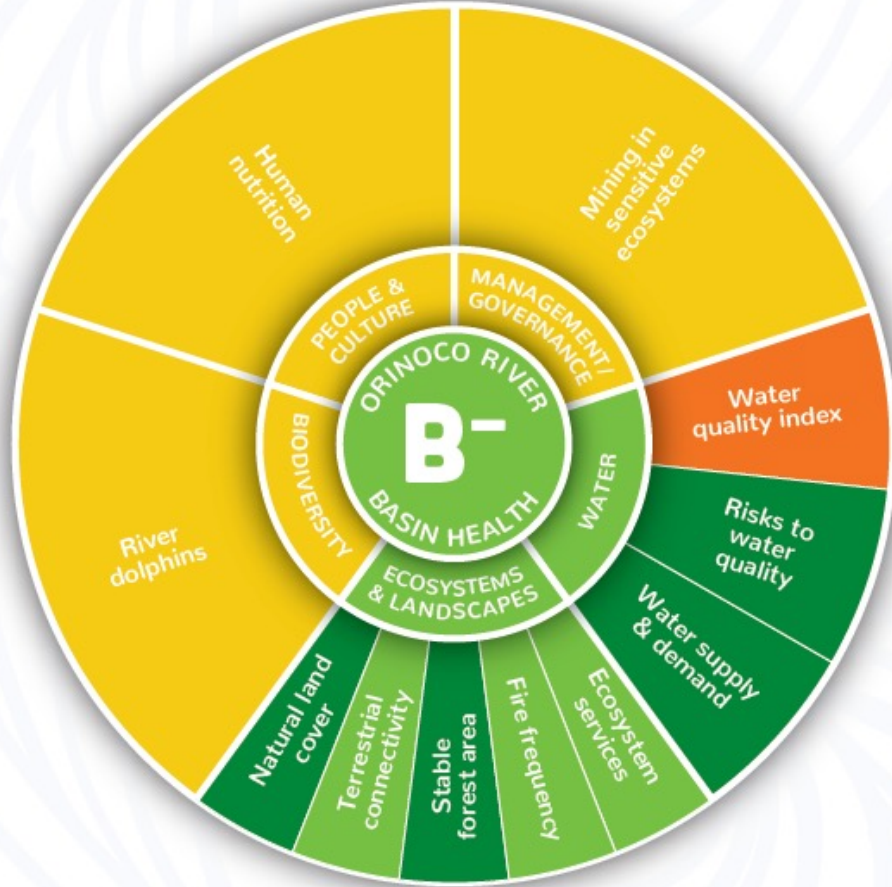


Indicators for

- Water
 - Quality
 - Quantity
 - Management
- Habitat
 - Upland
 - Riparian
 - Aquatic
- Communities
 - Vitality
 - Engagement
 - Recreation

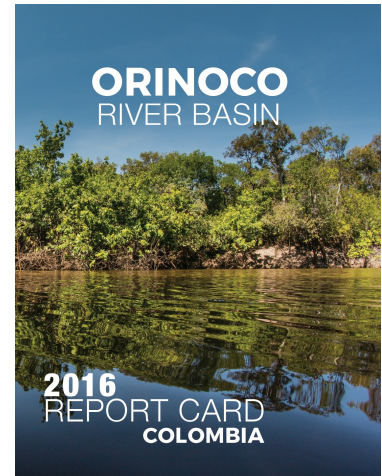


Orinoco River Basin Report Card



Indicators for

- Water
- Ecosystems & Landscapes
- Biodiversity
- People & Culture
- Management/Governance



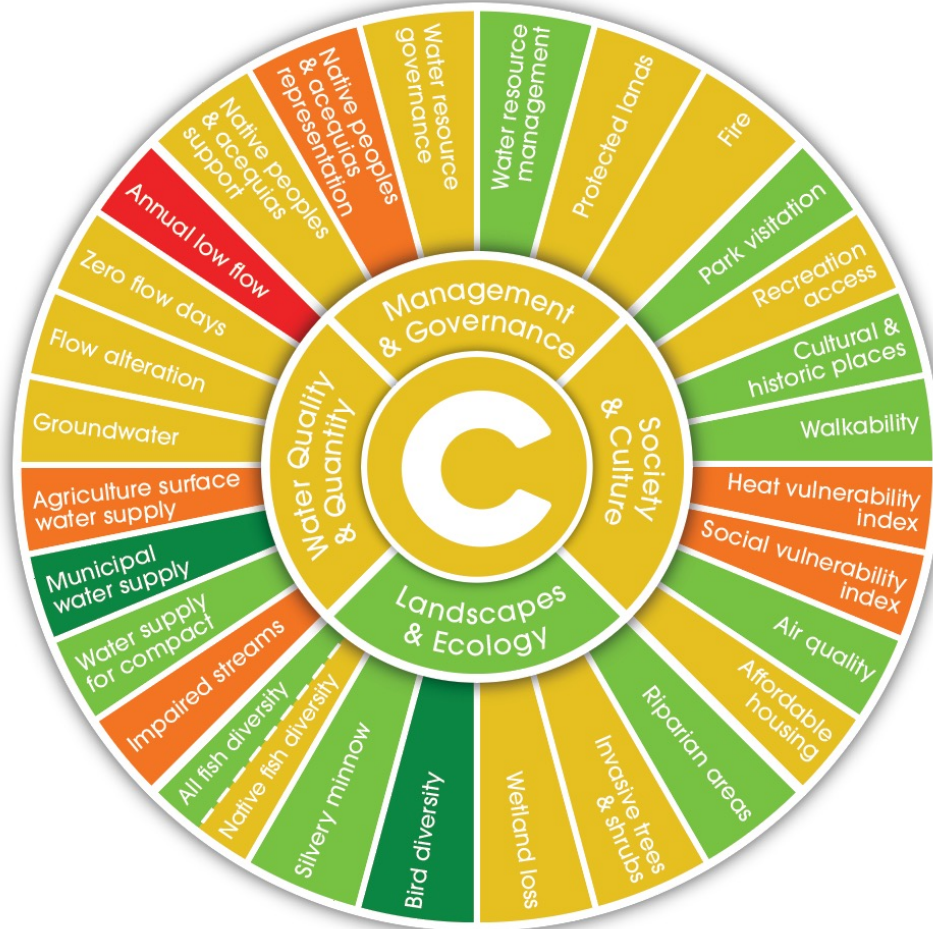
Upper Rio Grande Watershed Report Card

A report card for the
**Upper Rio
Grande Basin**

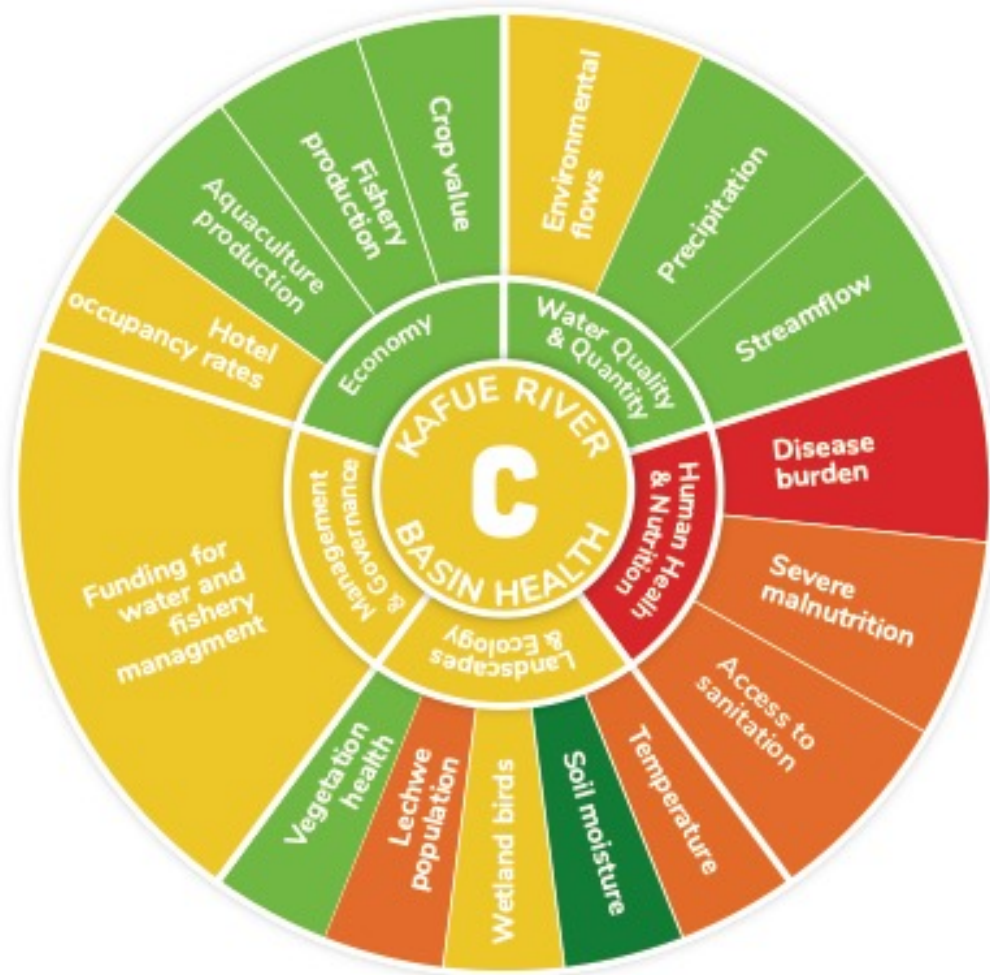


Indicators for

- Water Quality & Quantity
- Landscapes & Ecology
- Society & Culture
- Management & Governance



Lower Kafue River Basin Report Card

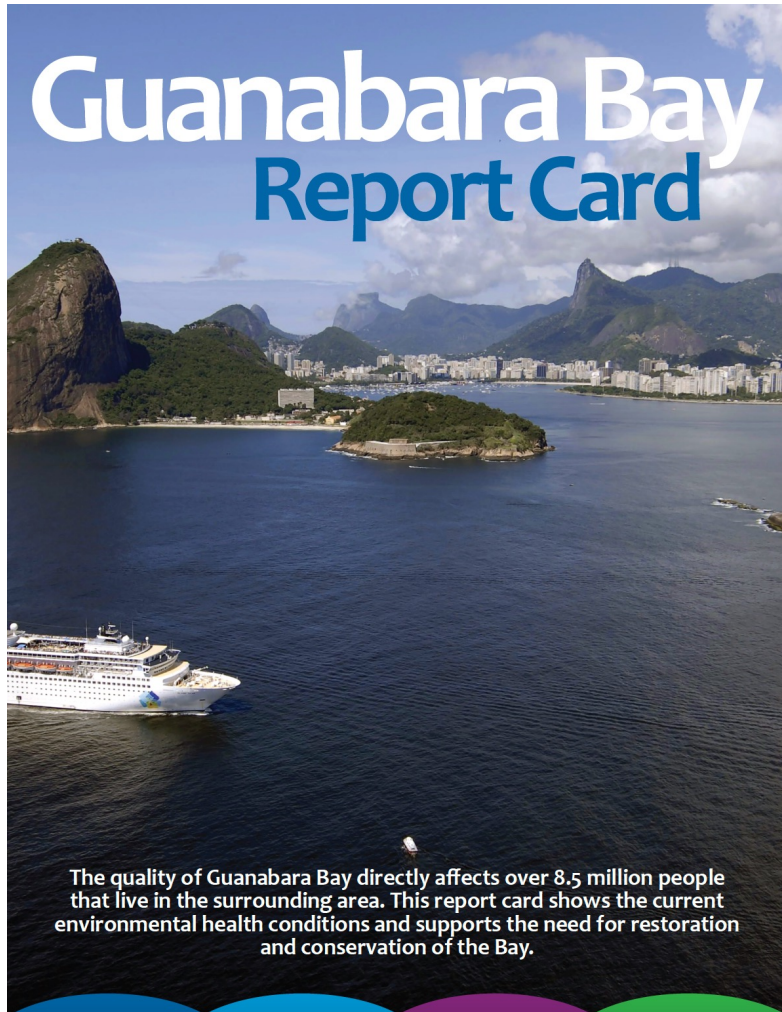


Indicators for

- Water Quality and Quantity
- Landscapes and Ecology
- Management and Governance
- Human Health and Nutrition
- Economy



Guanabara Bay Report Card



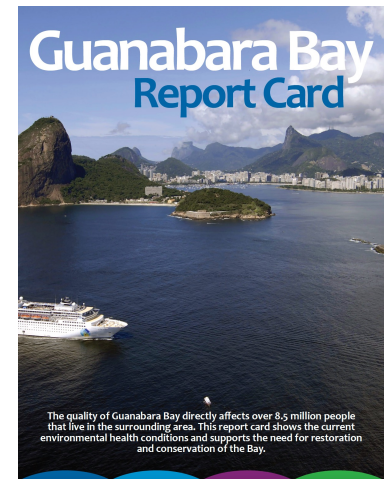
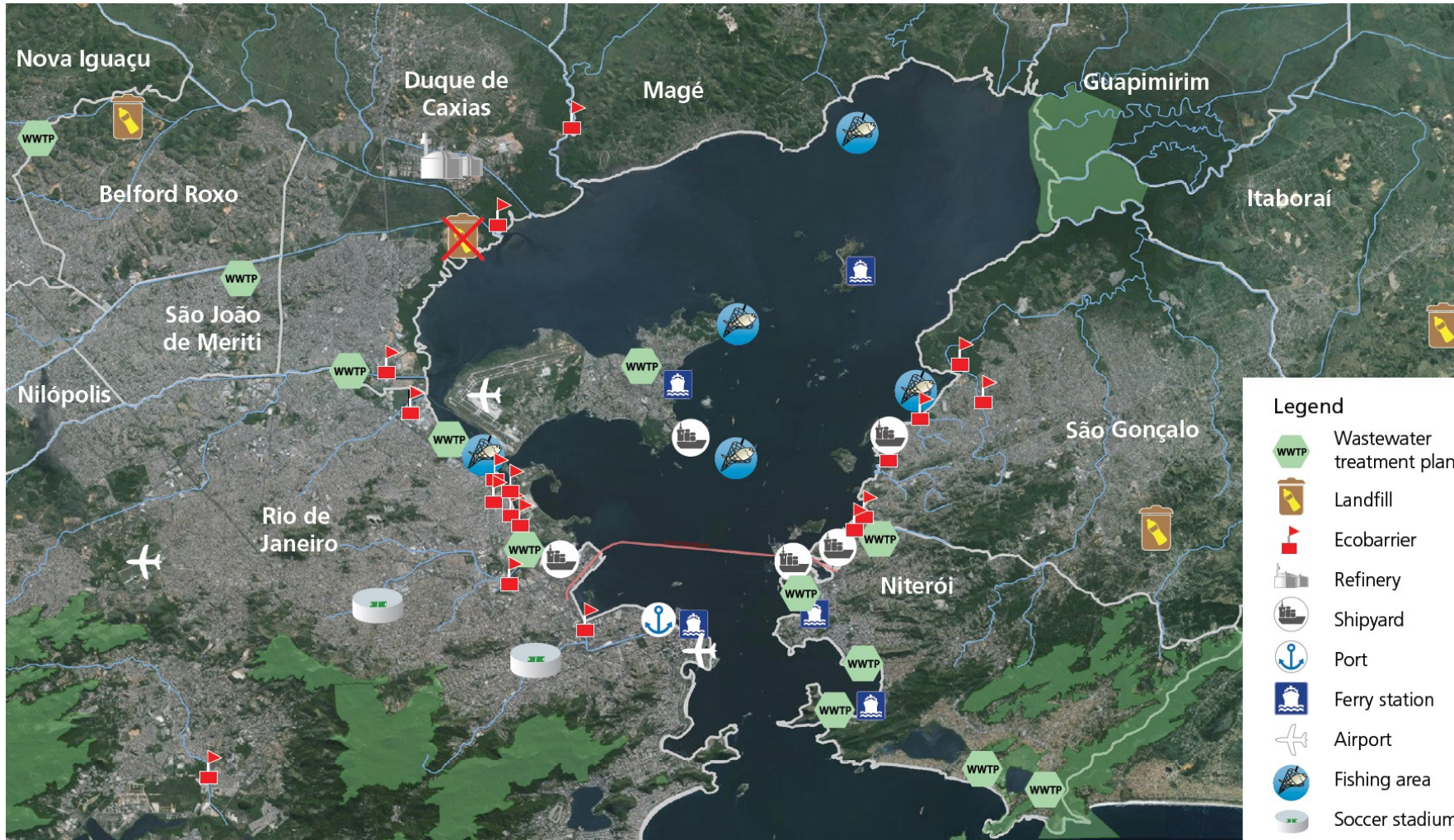
Bay Indicators:

dissolved inorganic nitrogen, total phosphorus, dissolved oxygen, biological oxygen demand, and fecal coliform

Basin indicators:

dissolved inorganic nitrogen, orthophosphate, dissolved oxygen, biological oxygen demand, and turbidity.

Guanabara Bay Report Card – What's next?



Thank you

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Environmental Science

Integration and Application Network

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703-371-4165

