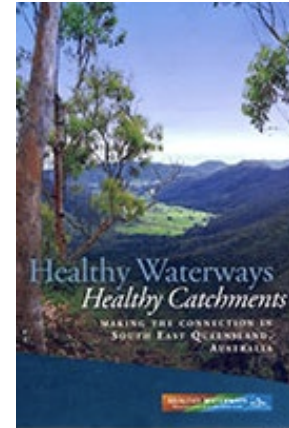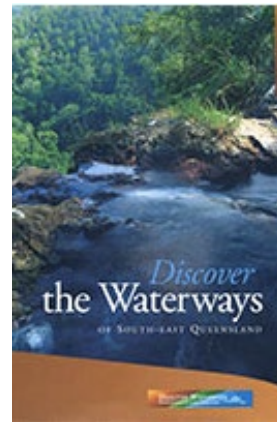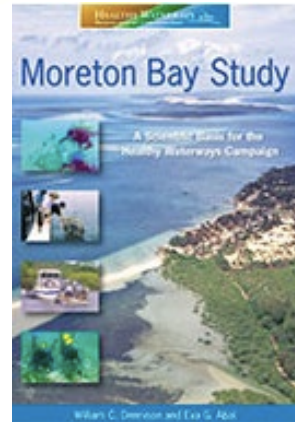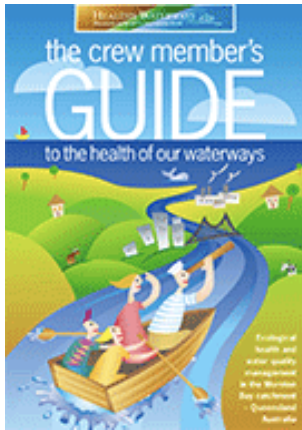# UMCES Chesapeake Bay report card

Bill Dennison

6 Jan 2022
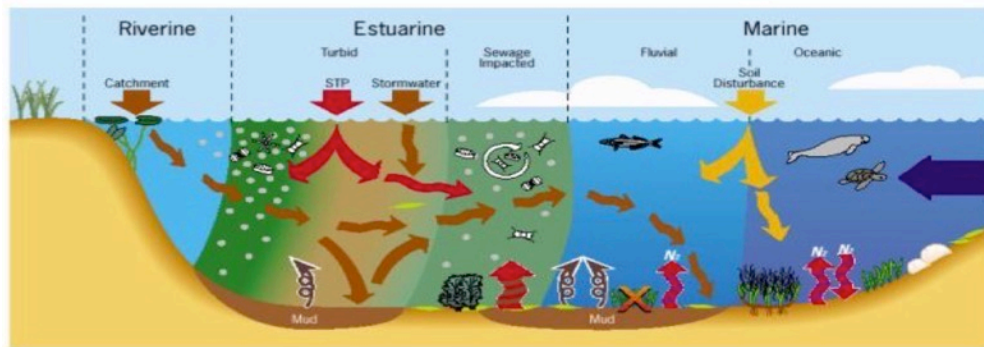
Chesapeake Bay Commission

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1990s, we developed science communication products, including report cards in Australia

Initial Moreton Bay report card was qualitative

"There is something fascinating about science. One gets such wholesale returns of conjecture out of such a trifling investment of fact." Mark Twain
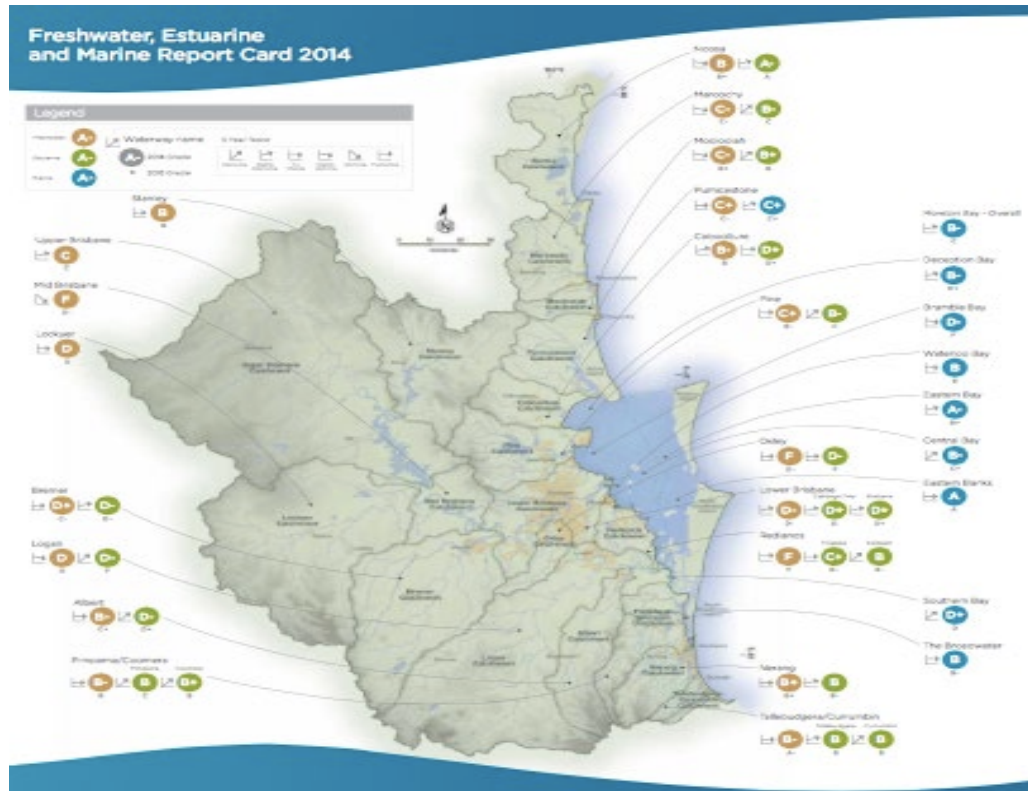
But it generated significant local media attention

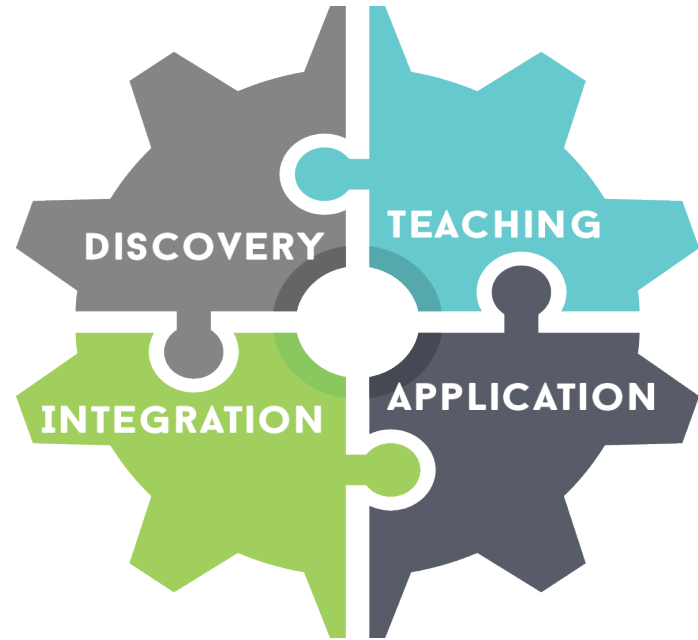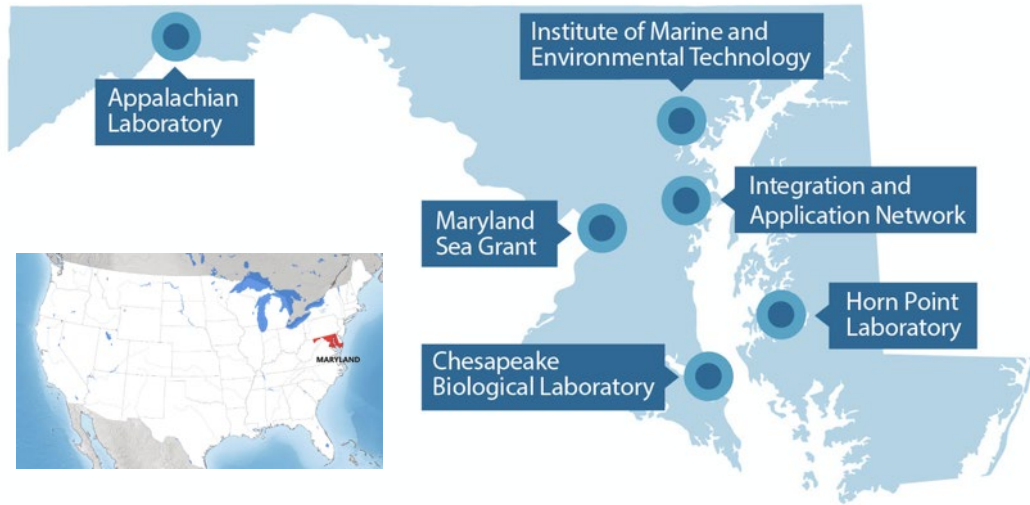# So we developed a rigorous report card framework

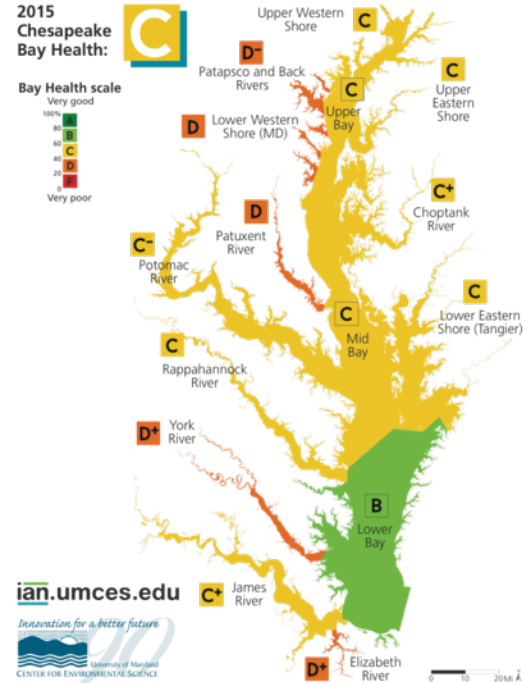# The report card expanded geographically

Report cards expanded throughout Australia

Scholarship was redefined by the Univ. of Maryland Center for Environmental Science in 2000
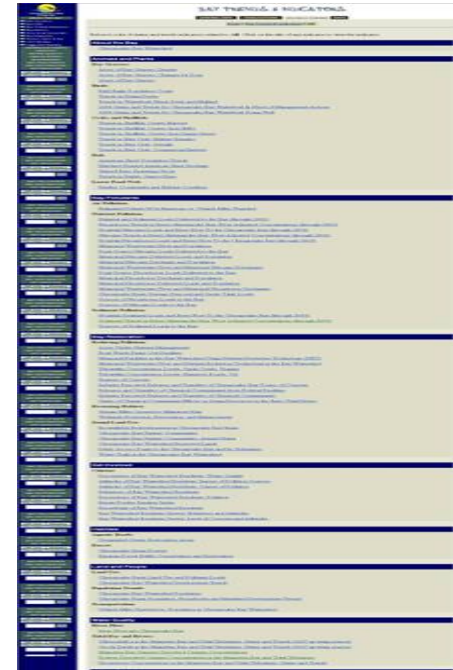
Chesapeake Bay: Data rich but synthesis poor

Chesapeake Bay Program indicators

- In 2005, there were 101 indicators; mixed 'state' and 'response' indicators

- No hierarchy or combined indices; No stories

- Conflicting stories: "Happy Talk" vs. "Doom and Gloom" about perceived progress
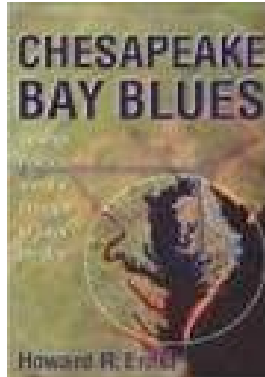
Chesapeake Bay Program indicators as they appeared on the website

Initial Chesapeake Bay report card produced in 2006
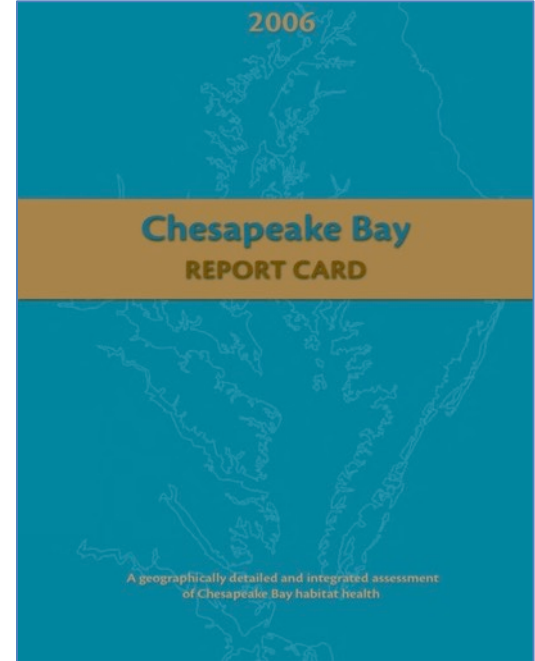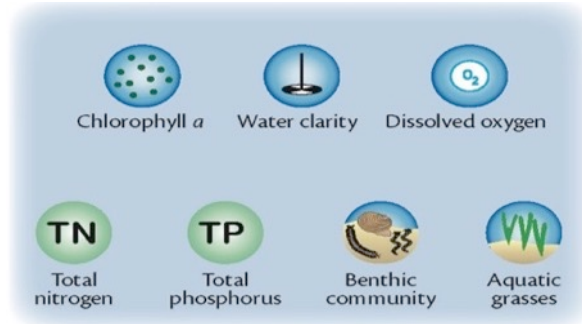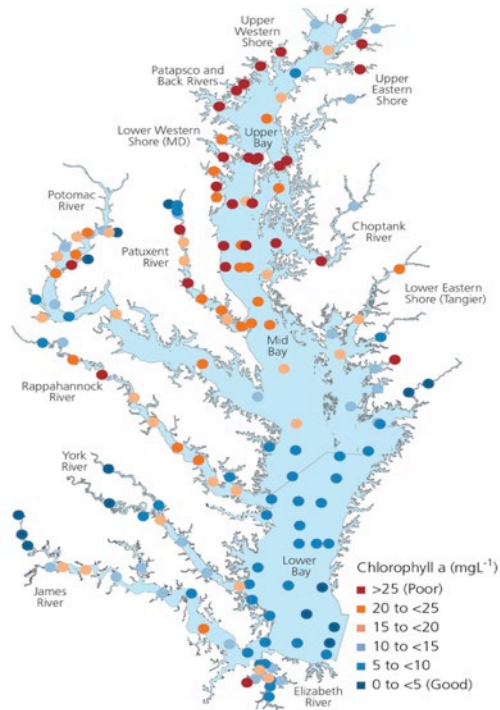
Chesapeake Bay report card generates media attention

Report card website created
www.ecoreportcard.org
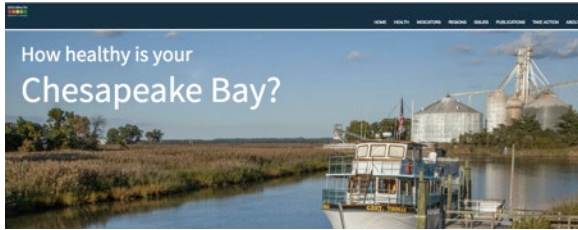
Partnership with WWF launched

Global network of practitioners established

Surveyed report card practitioners

80 % responded the report cards increased public awareness

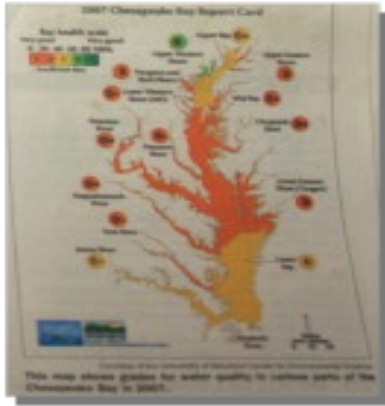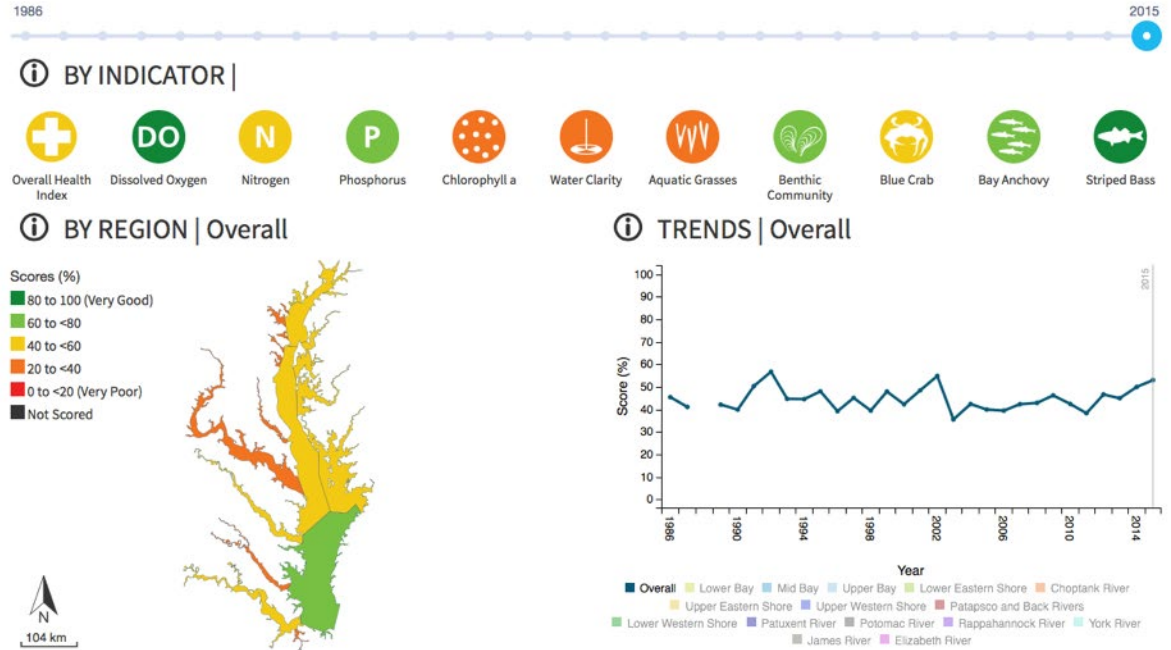**50 %** responded the report cards had a positive effect on stakeholder behavior and resource allocation

60 % responded the report cards had a positive impact on their basin

86 % responded the report cards increased the demand for additional information

97 % responded they would recommend using report cards to their peers

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Published Practitioner's Guide

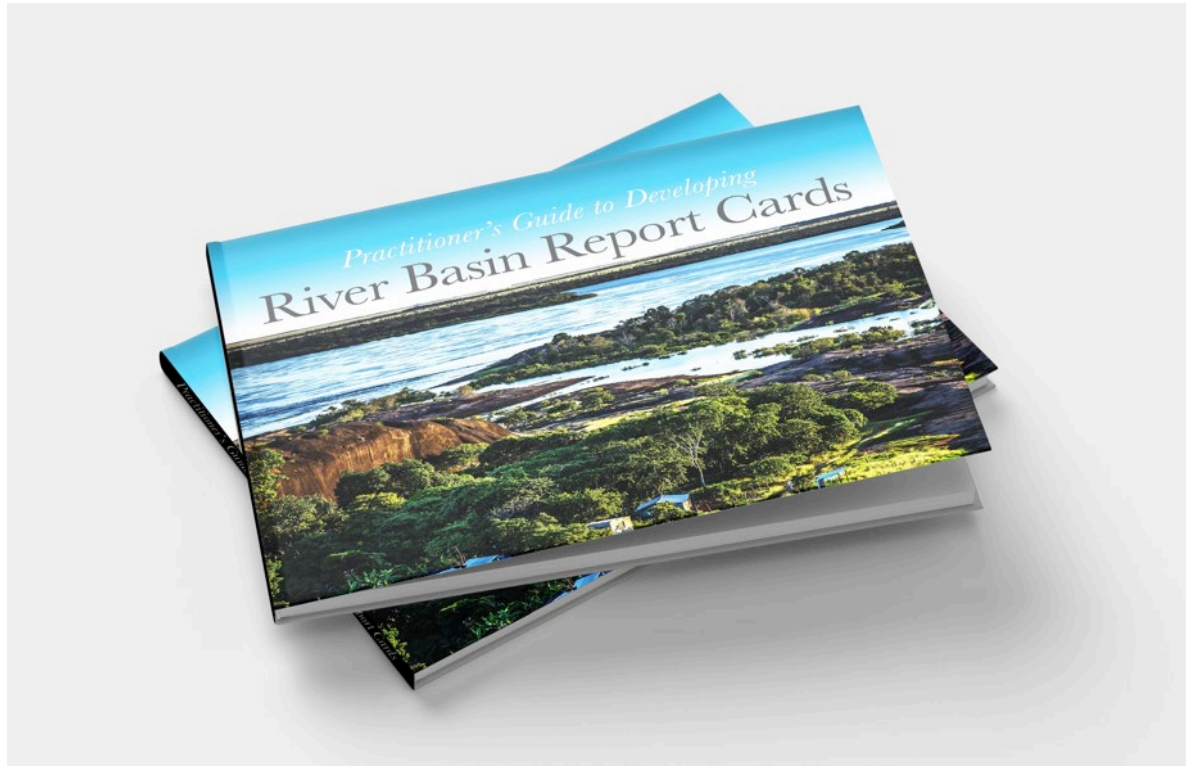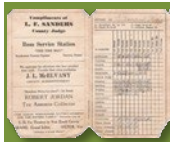# Environmental report cards in context

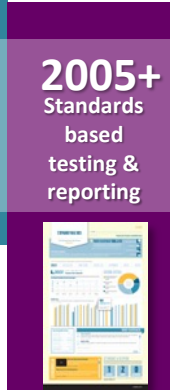| 1827	1900	1940's	1980	2000	2005+
Harvard University Henry D. Thoreau	Pass/Fail Checkmarks	A-F	Printed report cards %	Online report cards	Standards based testing & reporting

- Delivery
  - Simple and concise
  - Most people can relate to them
  - Don't require instructions

- Effect
  - Can identify areas needing improvement
  - Results can be tracked over time

- Response
  - Provides incentive
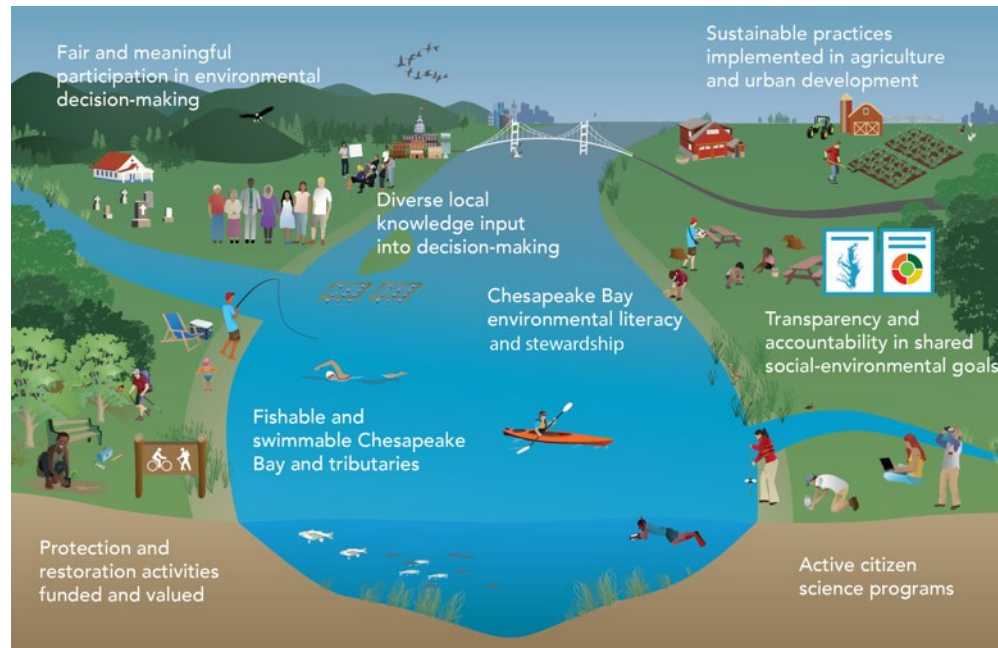 - Accountability (assessor and assesse)
  - Mass media love it
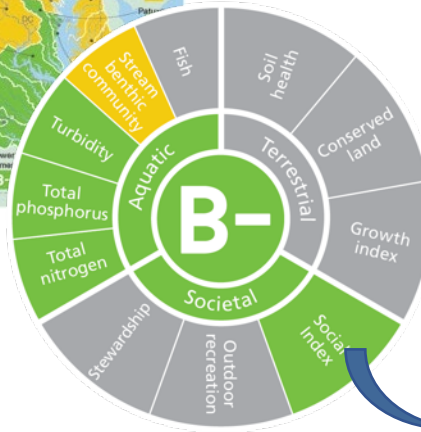
Re-imagining report cards requires a new, expanded shared vision: Vargas-Nguyen 2020 dissertation

B. Regional report cards

Fair and meaningful participation in environmental decision-making

Diverse local knowledge input into decision-making

Sustainable practices implemented in agriculture and urban development

Chesapeake Bay environmental literacy and stewardship

Transparency and accountability in shared social-environmental goals

Fishable and swimmable Chesapeake Bay and tributaries

Protection and restoration activities funded and valued

Active citizen science programs

Expanding the Chesapeake watershed report card

Environmental justice indicators

- Proximity to hazards
- Access to nature
- Restoration funding
- Management & governance

vs.
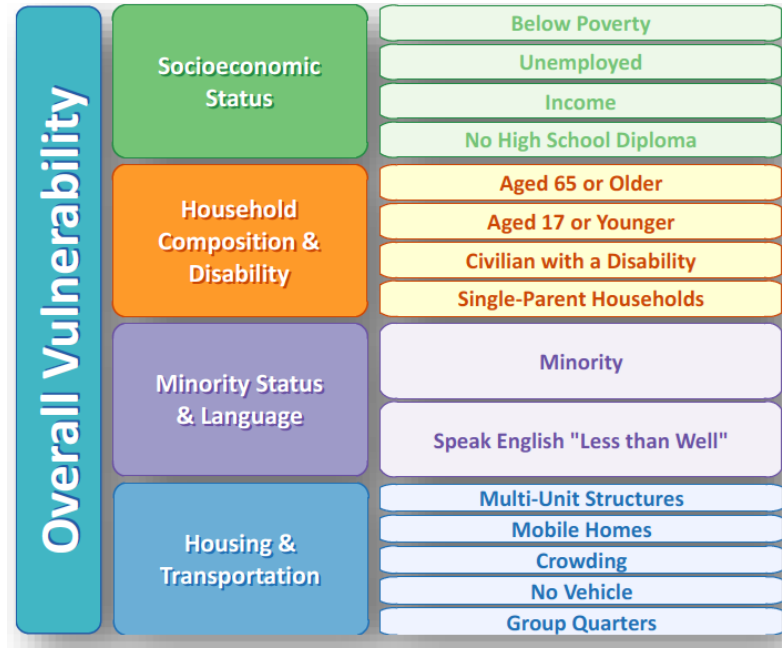
Grad students

Imani Black *UMCES HPL*
Haoyu Chen *UMCES IMET*
Amber Fandel *UMCES CBL*
Taylor Gedeon *UMD E&S*
Shakira Goffe *UMES*
Sarah Jones *UMCES CBL*
Katrina Kelly *UMES*
Jehnae Linkins *UMD Engr*
Nylah McClain *UMES*
Andrea Miralles-Barboza *UMD E&S*
Megan Munkacsy *UMCES CBL*
Chelsea Richardson *UMES*
Amanda Rockler *UMD E&S*
Ashley Silver *UMES*
Isabel Sullivan *UMD Biology*
Faith Taylor *UMD E&S*
Imani Wilburn *UMES*
Olivia Wolford *UMD Anthropology*

MEES
MARINE ESTUARINE
ENVIRONMENTAL
SCIENCES GRADUATE PROGRAM

COAST Card is a new generation of report card

- Coastal Ocean Assessment for Sustainability and Transformation (COAST) Card

- COAST Card merges three tools:
  - status assessment through a report card process,
  - societal guidance through social network analyses
  - prioritized actions identified with system dynamics models.

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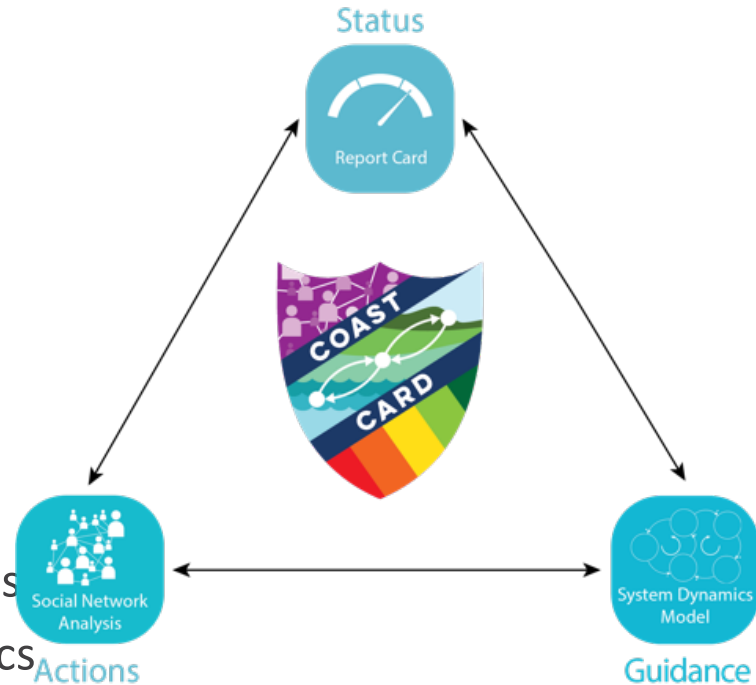
Belmont Forum project recently launched to globalize report cards