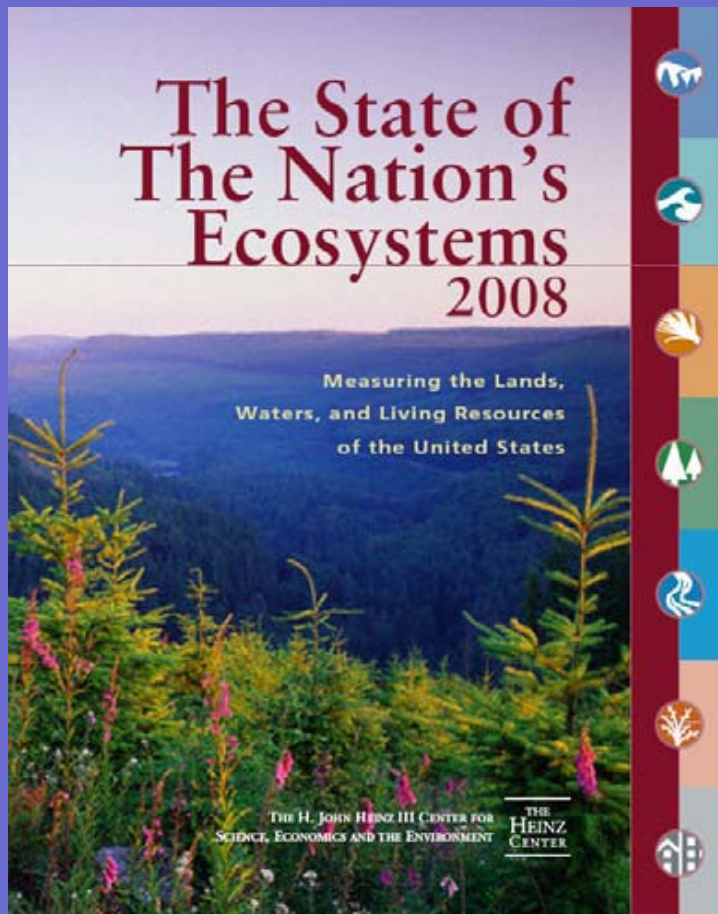


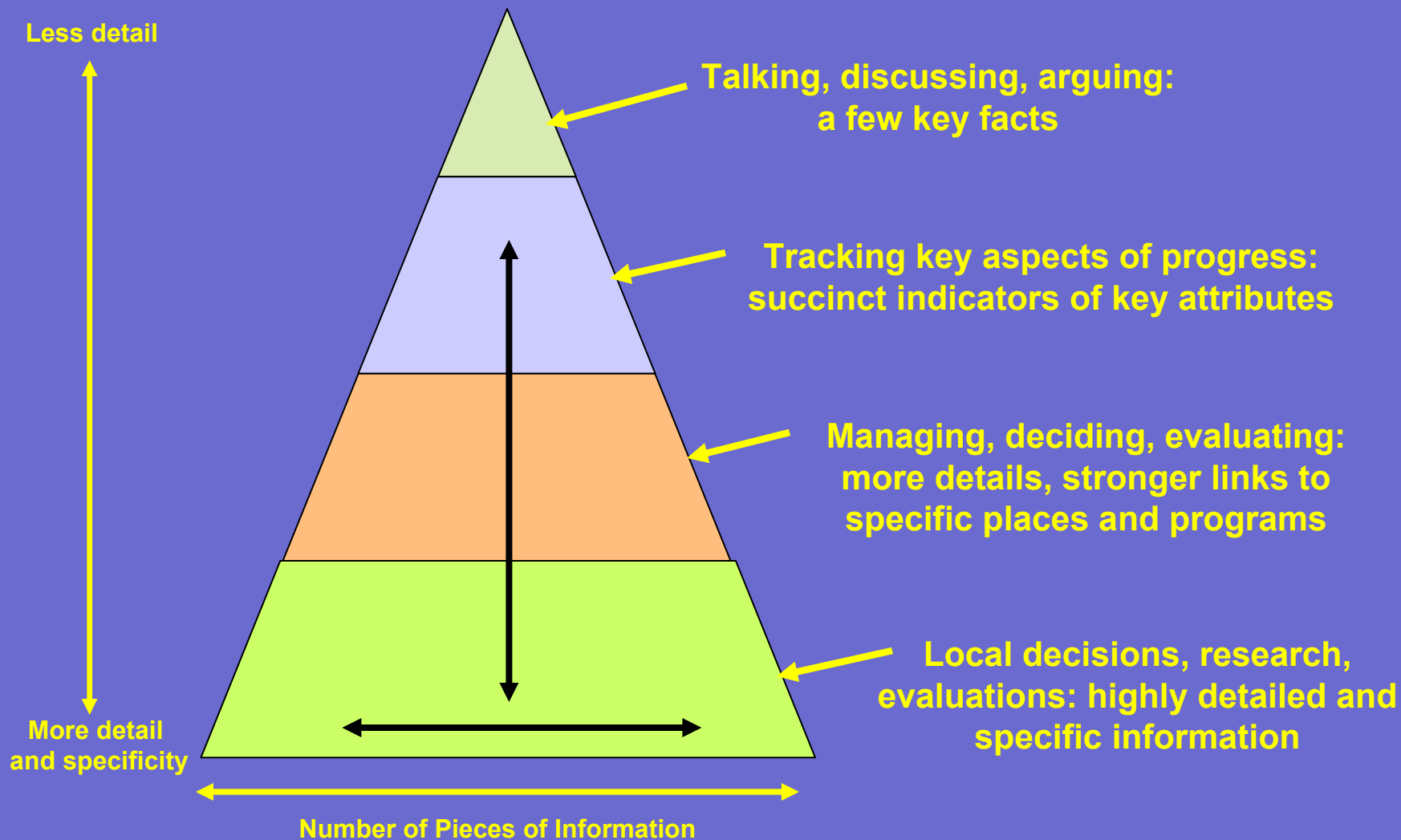
The State of the Nation's Ecosystems Project and Conceptual Model Development



Robin O'Malley
The Heinz Center

UN Statistical Division
Experts Group Meeting
November 10-12, 2009

Information and Indicators for Multiple Needs

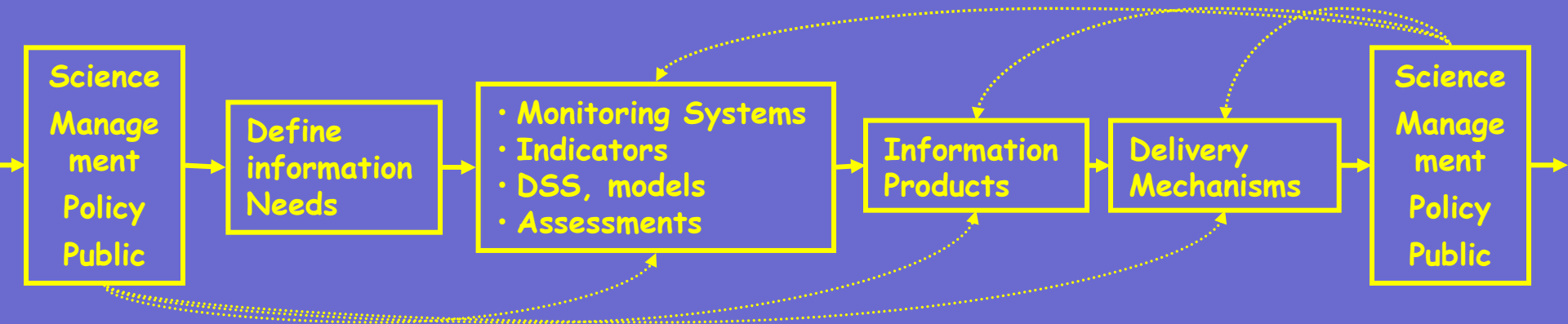


Information Value Chain

What do we need to know?

What do we know?

How can we communicate what we know?



Goals of the *State of the Nation's Ecosystems* Project

- Identify strategic indicators of condition and use of U.S. ecosystems
- Lay the groundwork for periodic, high-quality, non-partisan reporting

Key Principles:

- Focus on trends
- Politically neutral
- Scientifically excellent
- Policy relevant
- Not a one-time report

Process – a crucial distinguishing feature

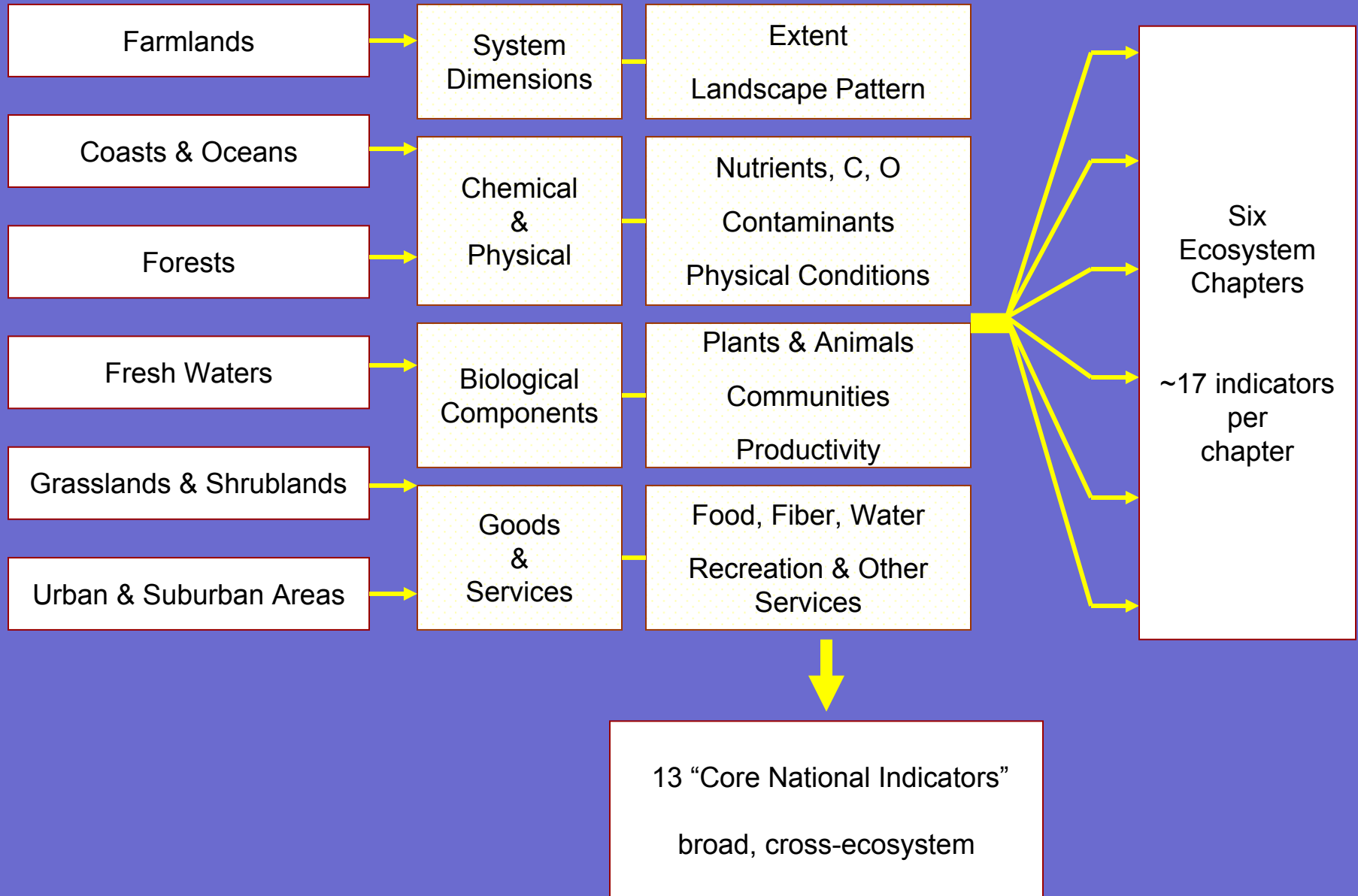
Multiple “sectors”: government (federal, state, local), business, environmental NGOs, academia

Multiple skill sets: policy/legal/advocacy AND technical

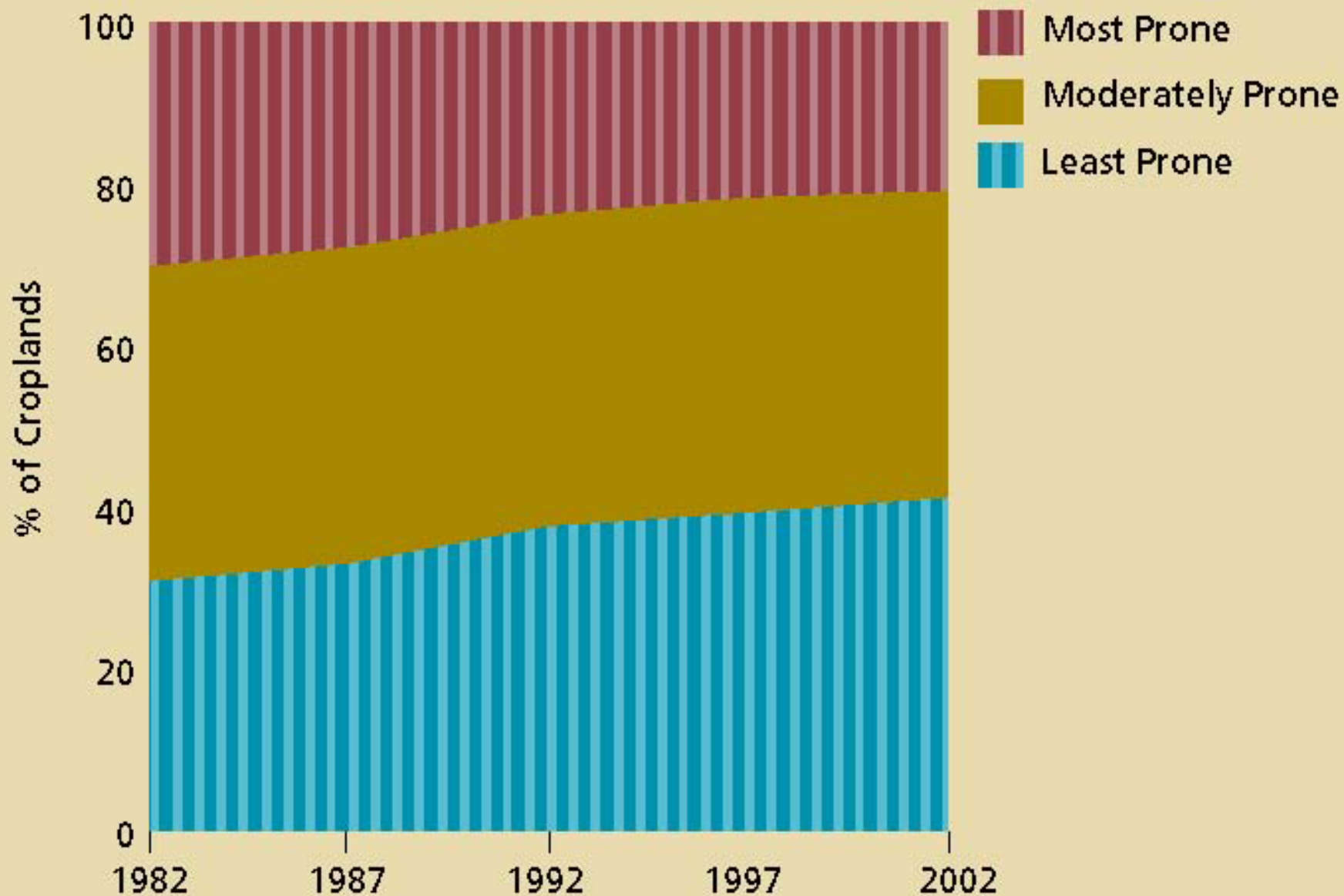
Multiple rounds of collaborator and external reviews

Respectful dialog!

The Reporting Framework

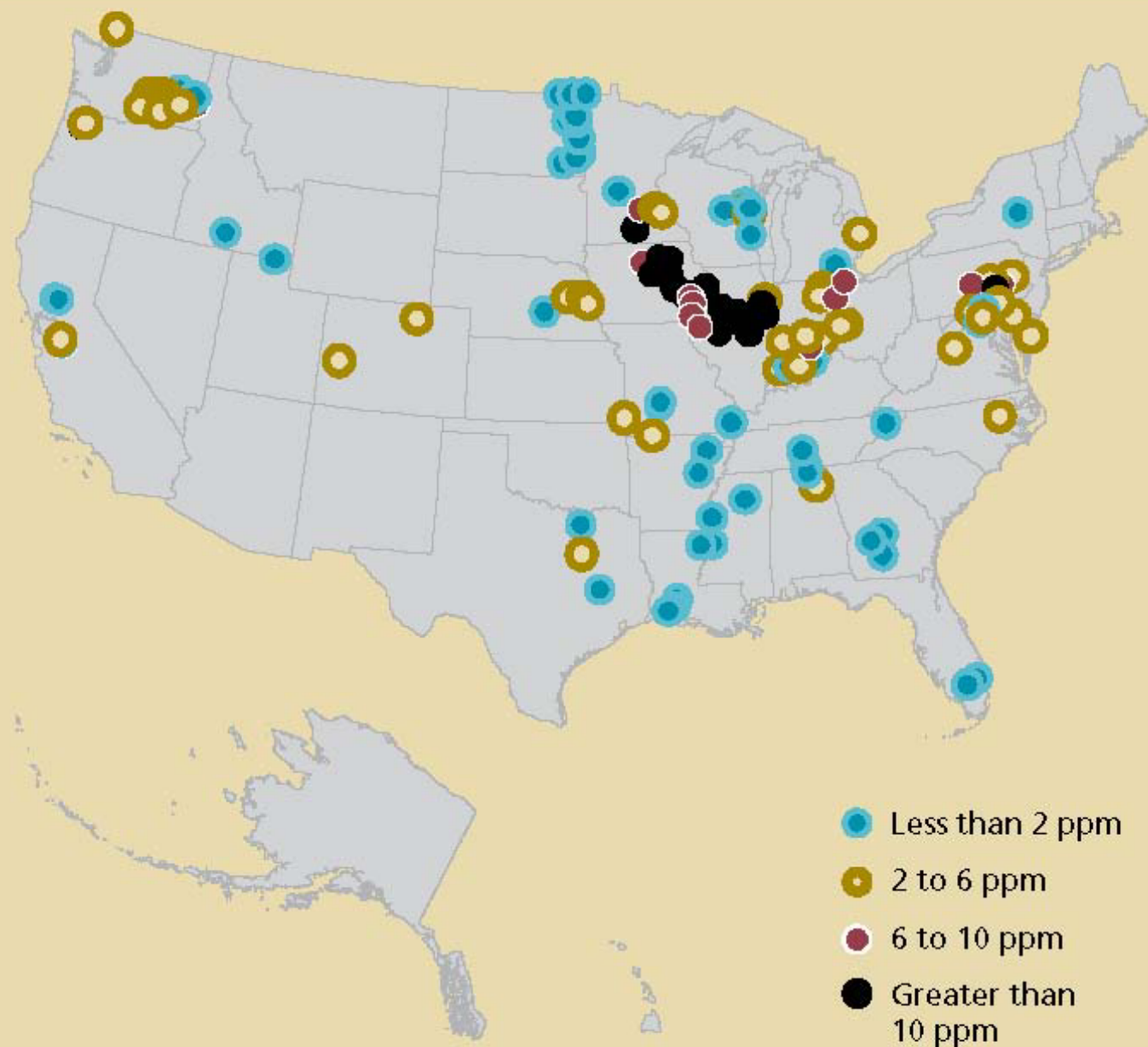


Water Erosion Potential



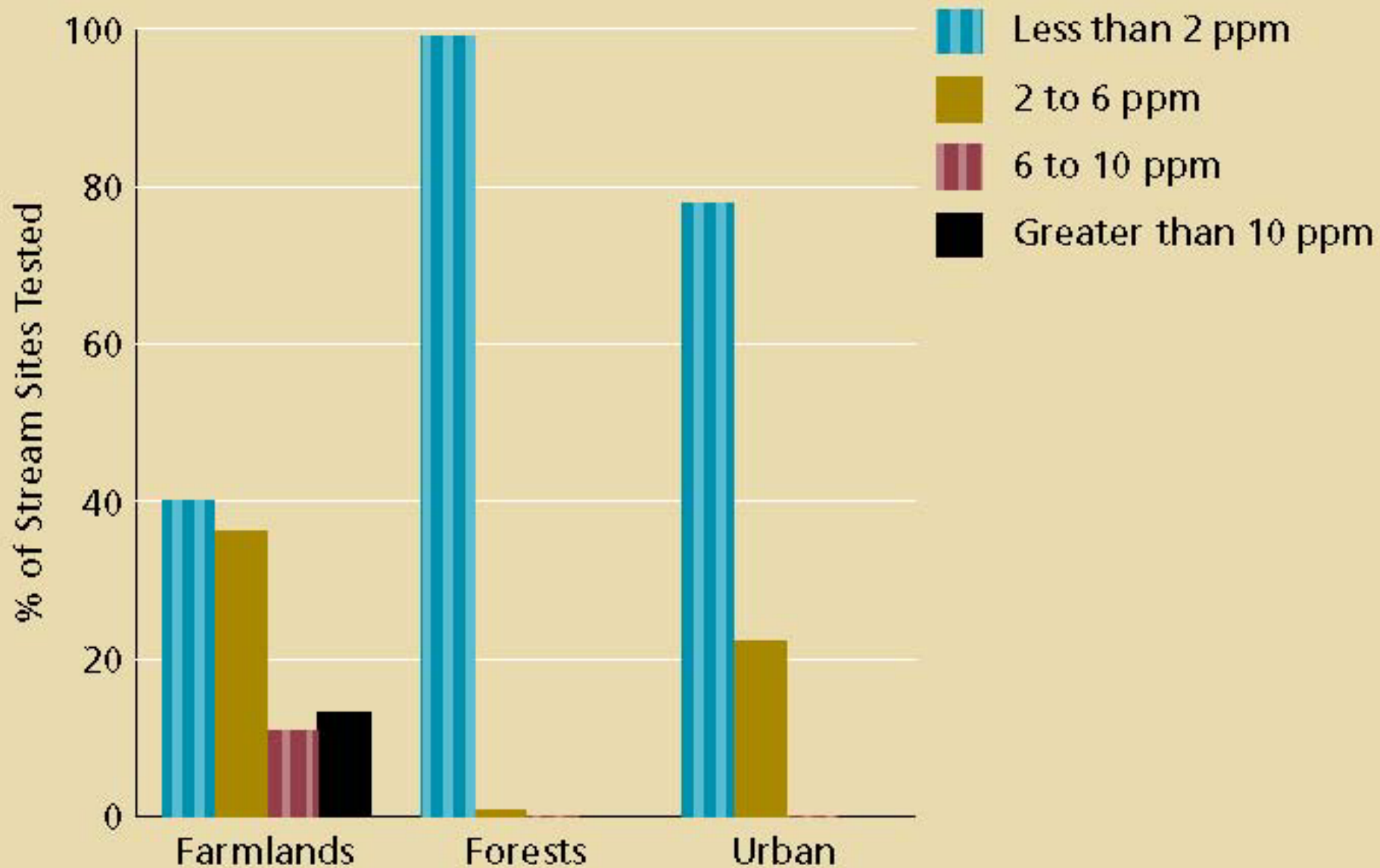
Data source: USDA Natural Resources Conservation Service. Coverage: lower

Nitrate in Farmland Streams, 1992–2001



Data source: U.S. Geological Survey, National Water Quality Assessment.

Ecosystem Comparison: Nitrate in Streams, 1992–2001



Data source: Same as above. Coverage: all 50 states.

"Data Gaps"

Strategy: Report intentionally was not limited to data already in hand

Outcome: In 2002, nearly half of 103 high priority indicators could not be reported

~30% had inadequate data → 2008: 26% (of 108)

~14% had inadequate definition → 2008: 11% (of 108)

Key Principles:

Focus on trends

✓ Politically neutral

✓ Scientifically excellent

✗ Policy relevant (connected to local / national decisions)

Not a one-time report

Conceptual Framework Development

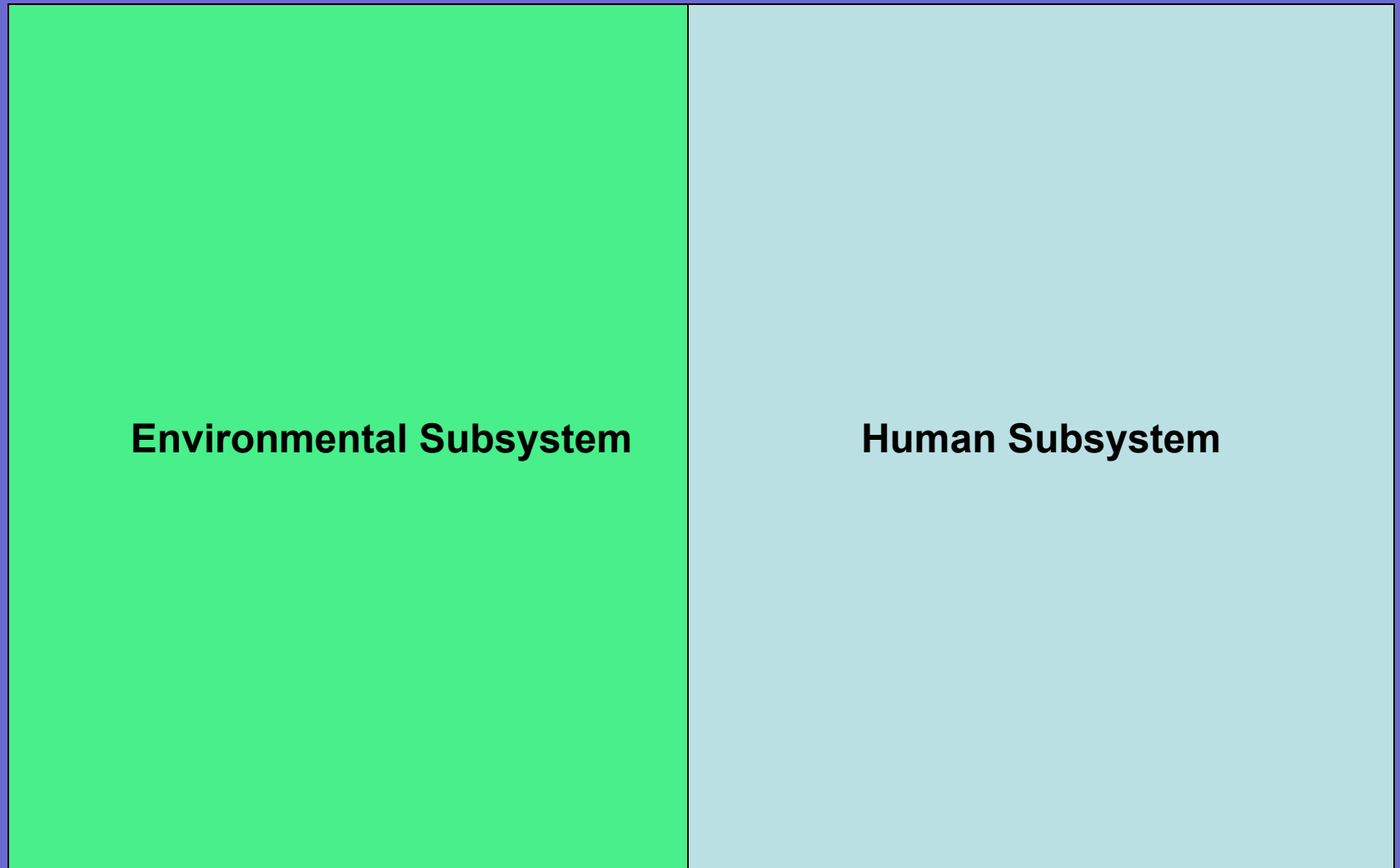
(thanks to)

Integration and Synthesis Group

Theodore Heintz

White House Council on Environmental Quality

The Earth's Ecosystem



Tier 0 – ISG Conceptual Framework

Environmental Subsystem

Human Subsystem

State t_0

Initial Environmental Conditions

Natural Resource Capital

Social Capacity & Economic Capital

Initial Human Conditions

Time

Processes

Environmental & Natural Resource Processes

Interactions

Social & Economic Processes

State t_1

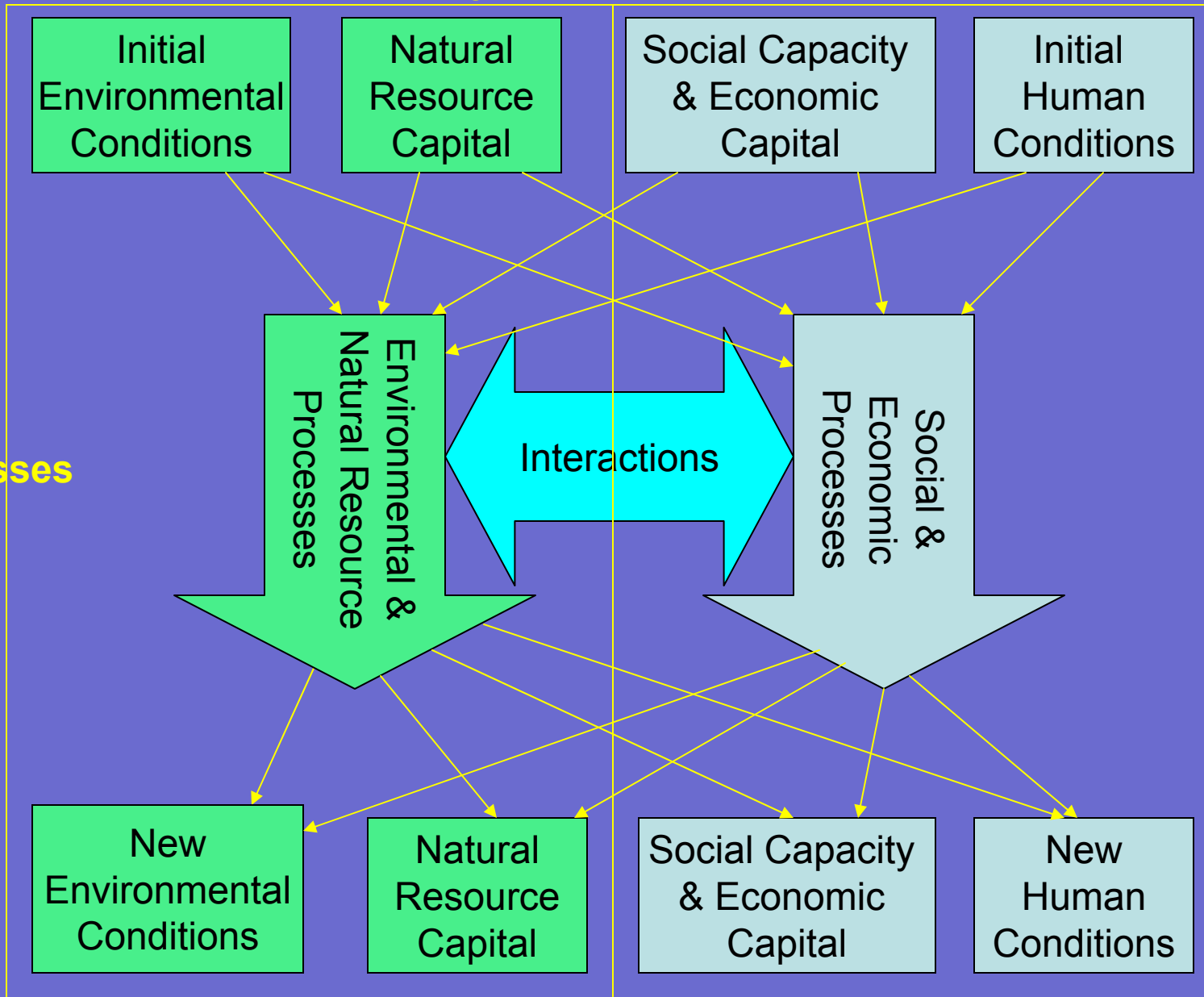
New Environmental Conditions

Natural Resource Capital

Social Capacity & Economic Capital

New Human Conditions

Tier 1 - ISG Conceptual Framework



Environmental Subsystem

Human Subsystem

State t_0

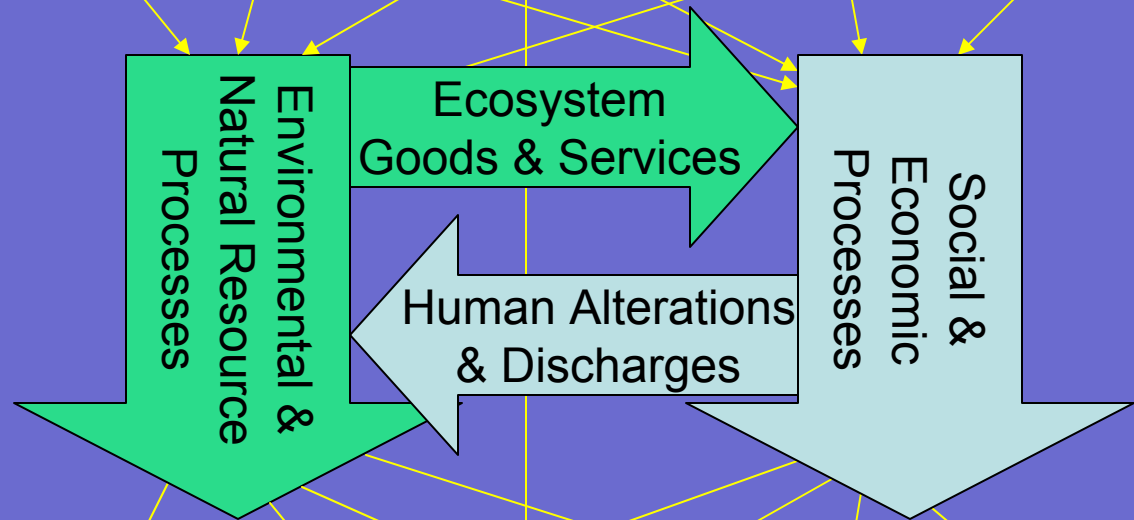
Current Environmental Conditions

Natural Resource Capital

Social Capacity & Economic Capital

Current Human Conditions

Processes



State t_1

Current Environmental Conditions

Natural Resource Capital

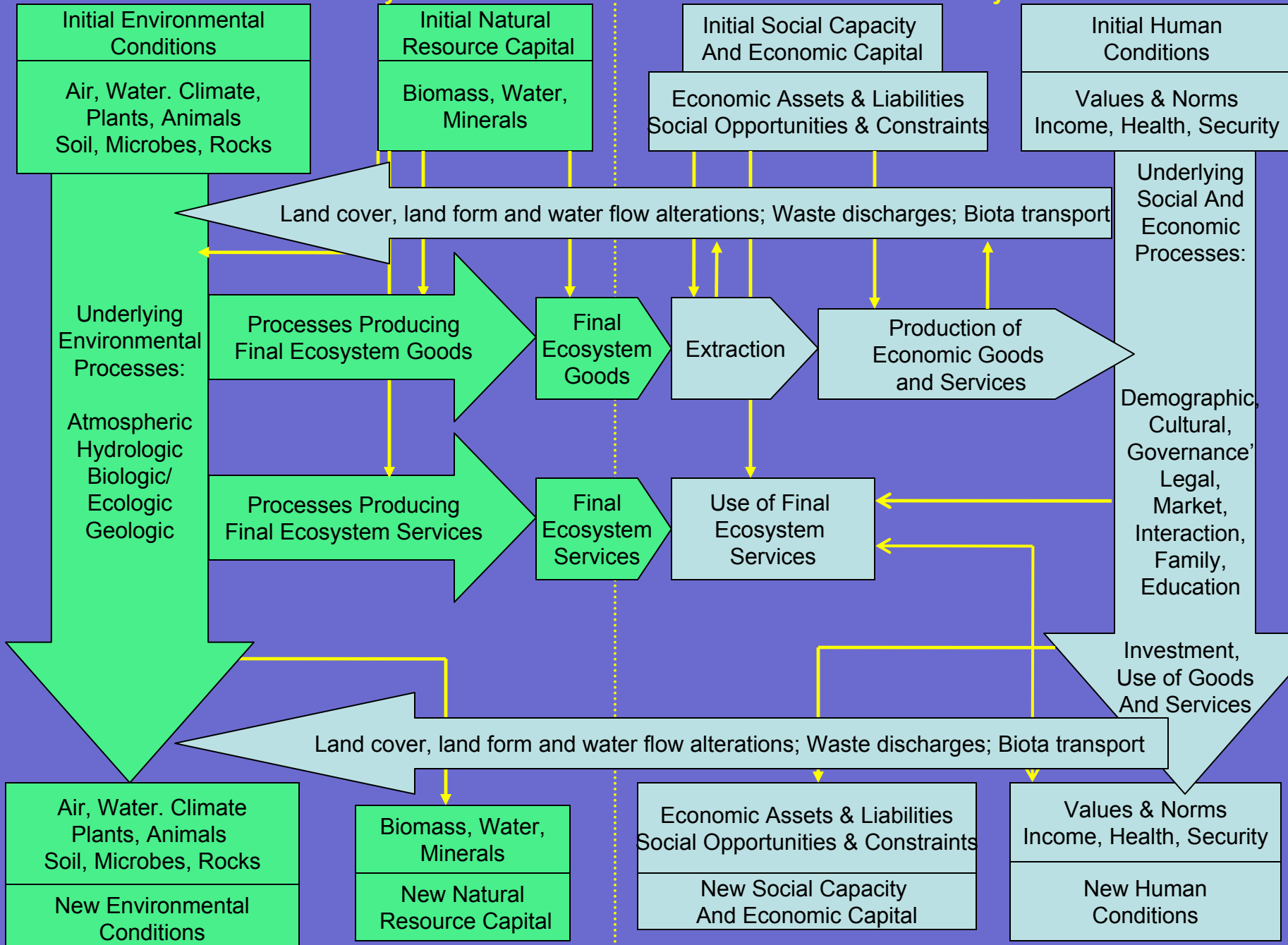
Social Capacity & Economic Capital

Current Human Conditions

Tier 1a - ISG Conceptual Framework with Ecosystem Services

Environmental Subsystem

Human Subsystem



Tier 2 – ISG Conceptual Framework



Thank you

