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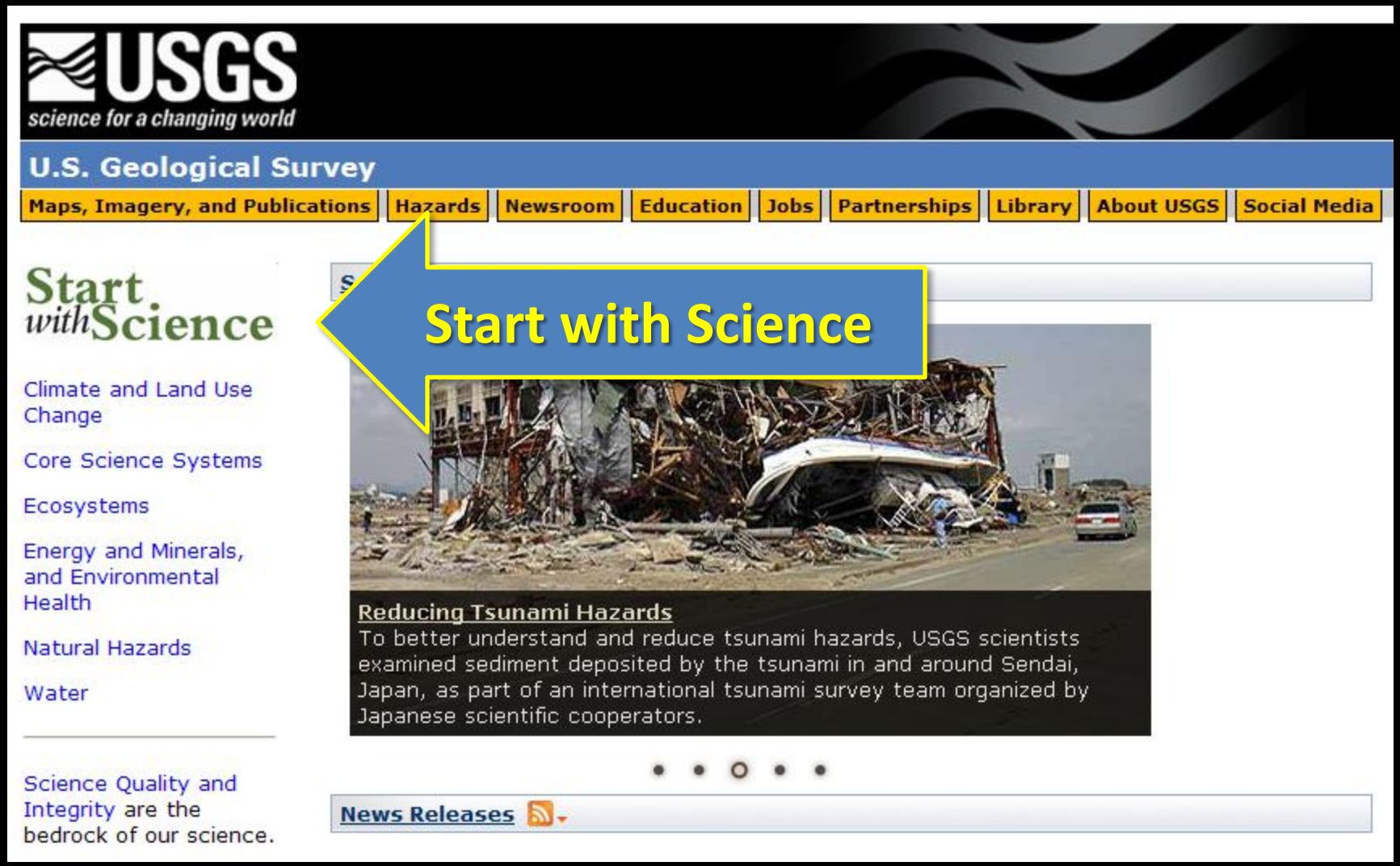
science for a changing world

Developing an Ecosystems Science Strategy for the USGS and the Nation

U.S. Department of the Interior
U.S. Geological Survey

For more information and to provide input:



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Science Strategy Planning Team: Background

In 2007, USGS released a Science Plan "*Facing Tomorrow's Challenges—U.S. Geological Survey Science in the Decade 2007–2017*"

- A comprehensive, high-level framework for USGS science
- Began a process to realign our organizational structure
- "Ecosystems" are foundational

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Followup to the USGS Science Strategy

In 2010, the USGS Executive Leadership Team identified 7 science “Mission Areas” and formed 12-member science strategy teams

- Ecosystems
- Energy and Minerals
- Environmental Health
- Natural Hazards
- Water
- Core Science Systems
- Climate and Land-Use Change

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USGS Expectations for the Science Plans

- The 7 SSPTs will coordinate closely and identify linkages among the Plans
- The Plans will build on and update the 2007 Bureau Science Strategy
- SSPTs will engage stakeholders and promote broad participation
- Plans will be delivered to the Executive Leadership Team by October 2011

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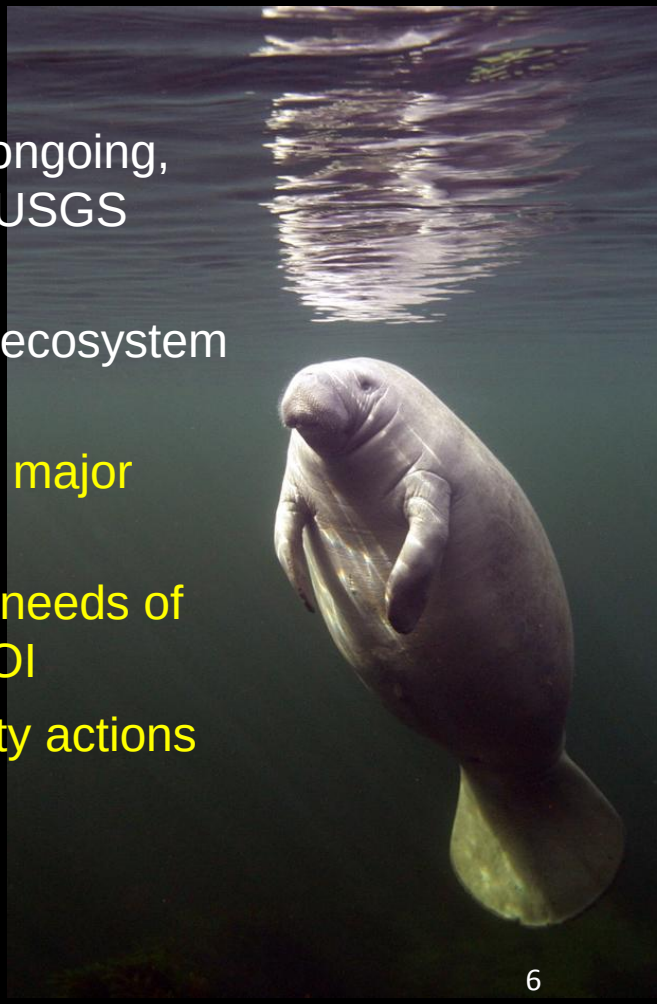
Science Strategy Team Mission and Goals:

The primary product for each Mission Area SSPT is a long-term (10-year) Strategic Science Plan, focusing on USGS capabilities, strengths, and a vision for the future

- Compile and summarize nature and scope of past, ongoing, and proposed USGS ecosystem science across all USGS disciplines/mission areas
- Determine strengths and core capabilities of USGS ecosystem science and define USGS ecosystem science niche
- Learn what other scientists and institutions consider major societal issues and priority ecosystem research
- Understand information and resource management needs of partners, particularly for our sister bureaus within DOI
- Outline the overarching goals, challenges and priority actions



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Preliminary Ecosystem Focal Issues (Goals)

- Improve understanding of ecosystem structure, function and processes
- Advance understanding of how drivers influence ecosystem change
- Improve understanding of the services that ecosystems provide to society
- Enhance tools, technologies, and capabilities to inform decisions about ecosystems
- Provide science to enhance strategies for management, conservation, and restoration of ecosystems

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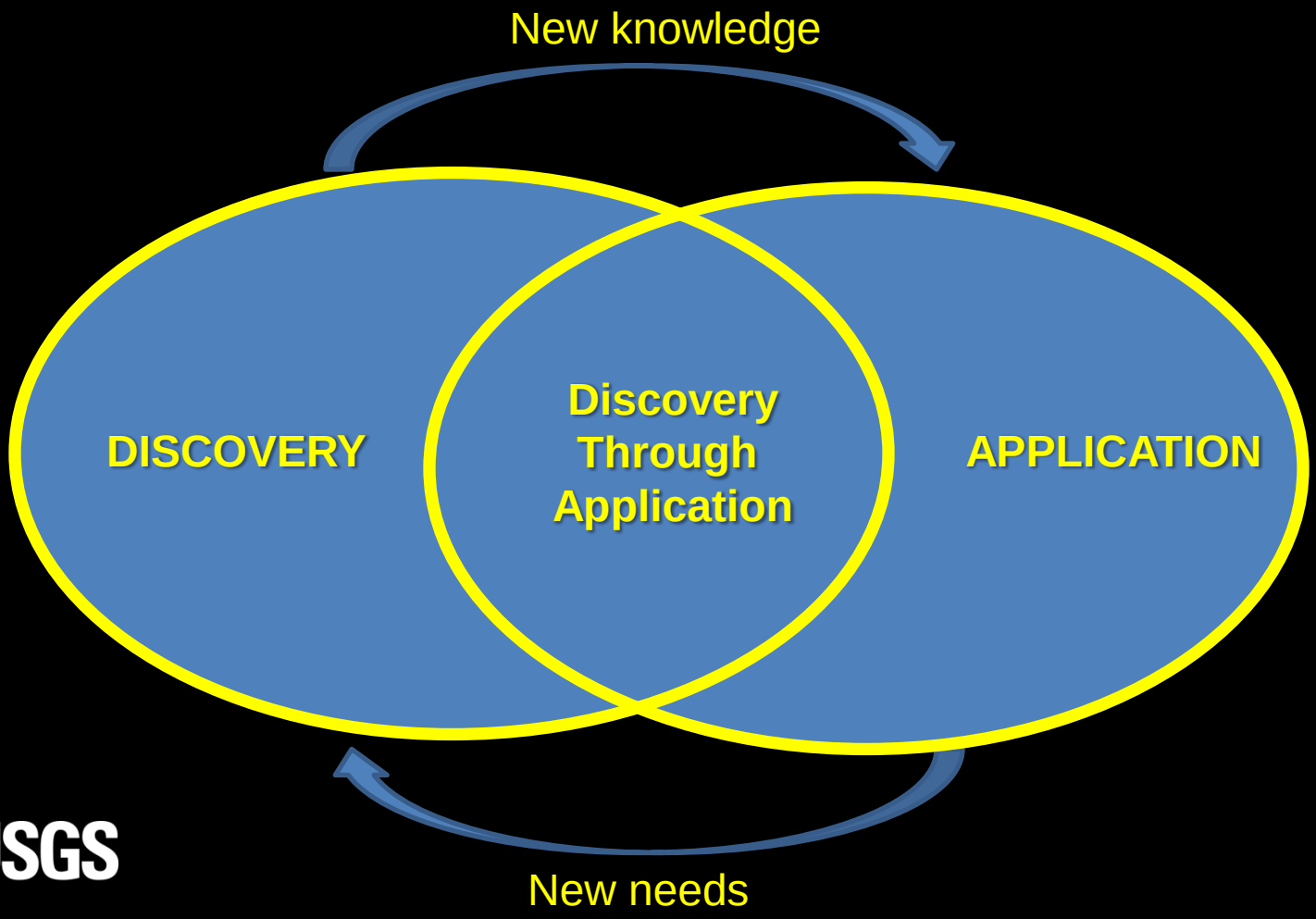
Ecosystems science envisioned as building on interaction between new knowledge from scientific discovery AND from application



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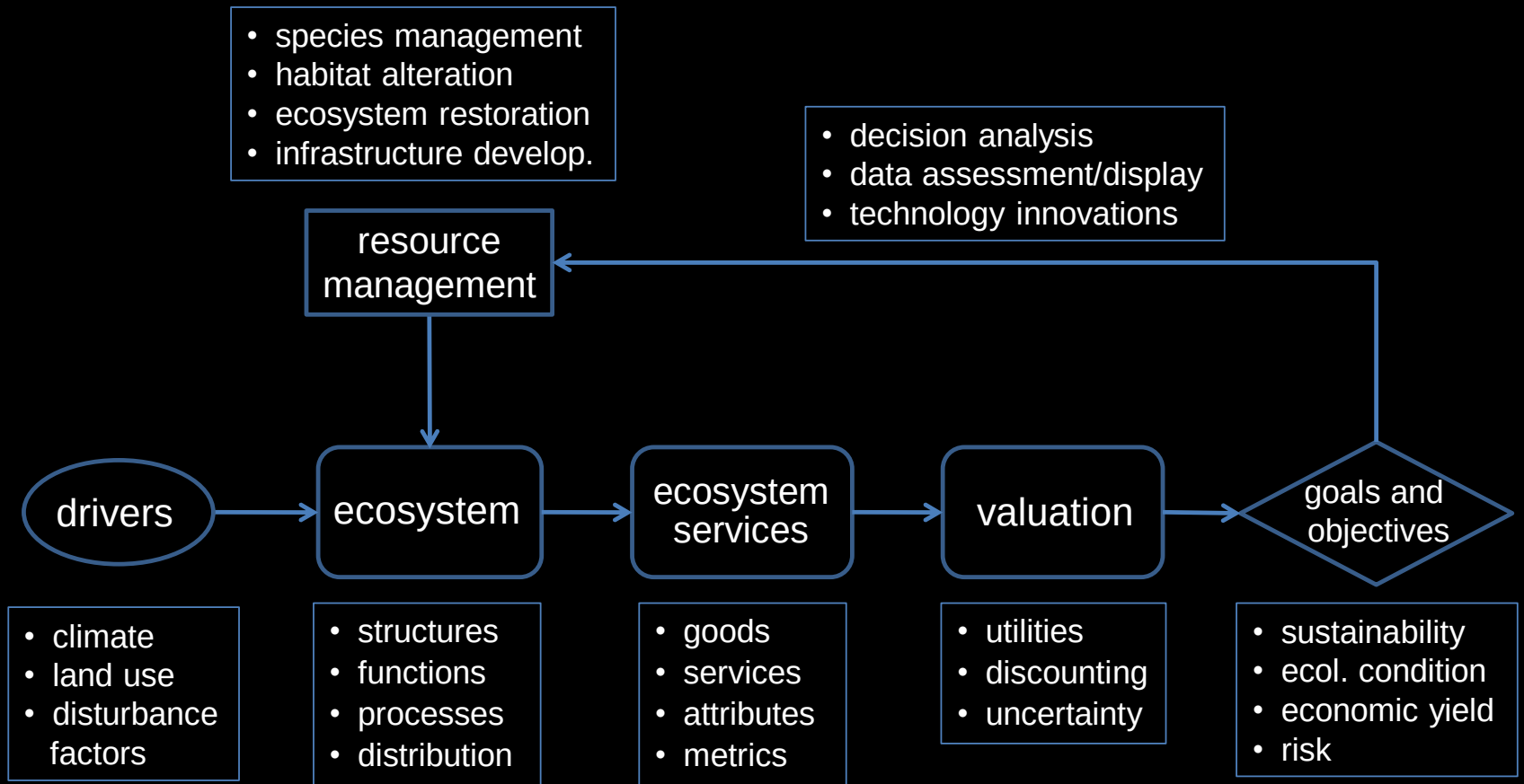
Framework for Ecosystem Science



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Preliminary Actions:

- Promote partnerships: Collaborate to identify, implement, and resolve regional science issues for priority ecosystems
- Advance Forecasts: Make observations, conduct research, and develop tools in support of priority modeling and forecasting
- Support Decisions: Apply ecosystems science, technologies and methods to investigate and inform conservation, restoration, and adaptive management of priority ecosystems.

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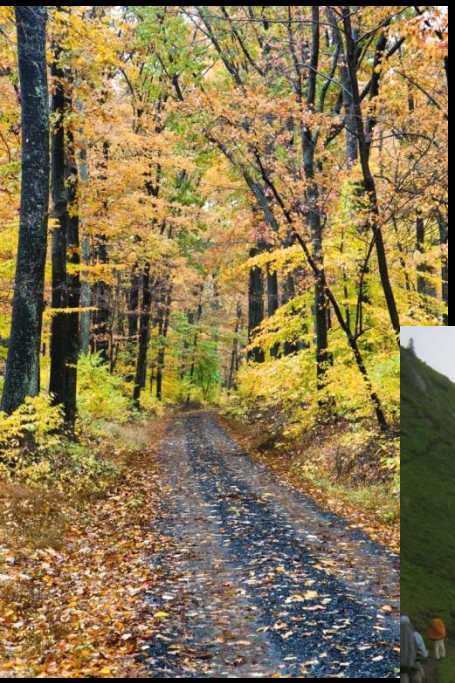
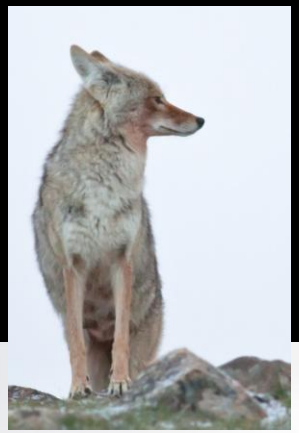
Fundamental to our Science Strategy: Collaboration

Inform and engage internal (USGS) and external stakeholders with an inclusive, objective, and transparent process of planning, report development and review.





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How do we make smart decisions about a changing world?

Start with Science

There are 6.6 billion people on Earth, and that number is increasing every day — human influence on our planet is ever more apparent. Changes to the natural world combined with growing human demands threaten our health and safety, our national security, our economy and our quality of life.

Help shape the future of USGS science!

Offer your comments on our draft strategies and questions.

The USGS is focused on some of the most significant issues society faces, in which natural science can make a substantial contribution to the well-being of the Nation and the world. The USGS Science Strategy outlines the major societal issues that USGS science is poised to address. Now we're creating specific strategies for each of those areas to expand and advance the actions we can take in the next decade, and we need your help. SHARE

- Core Science Systems
- Ecosystems
- Energy and Minerals
- Environmental Health
- Global Change
- Natural Hazards
- Water

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USGS Ecosystem Science Questions

- What are the most important ecosystem science needs and challenges for the coming decade?
- What actions do you recommend that USGS take to address these ecosystem science needs and challenges?
- How can USGS better provide relevant and timely ecosystem science information to decision makers, the scientific community, and the public?

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