Sustainability Roundtable

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July 31, 2019
Sustainability Science

• Use-inspired research

• Focus on:
  – Understanding human-environment interactions
  – Linking knowledge to action

• Interdisciplinary approaches
  – Natural and social scientists
  – Scientists and practitioners

Source: Fang, et al., Sustainability, 2018
A Core Element of Sustainability is the interactions between human and environmental systems.

Source: NRC. *Global Environmental Change* (1992, from Clark 1988)
Role of the Social and Behavioral Sciences in Relation to Environmental Change

• Human causes
  – Population and economic changes; consumption practices; attitudes and beliefs; the built envir.

• Human consequences
  – Inequality and social conflict; social and economic conditions

• Human understanding
  – Human-environment interactions
  – Science learning and education
Role of the Social and Behavioral Sciences in Relation to Environmental Change

• Human responses
  – Decision support; understanding of risk
  – Systems view; insight on designing social institutions

• Research and data needs
  – Design of data systems at various social, spatial and temporal scales
  – Integrated observation and data systems
  – Public understanding of sustainability
Human Causes: Population and Demography
Human Consequences
Human Understanding: Risk and Decision-Making
Human Understanding: Learning, Education, and Communication
Human Responses: Partnerships
Research Agendas and Scientific Capacity

Communicating Effectively

A Research Agenda
Data Needs and Opportunities
DBASSE Units in the Sustainability Space

• Board on Science Education - Heidi Schweingruber
  – Standing Committee on Advancing Science Communication Research and Practice

• Committee on National Statistics - Brian Harris-Kojetin

• Board on Environmental Change and Society - Toby Warden
  – Committee to Advise the US Global Change Research Program (with DELS/BASC)