Demonstrating the Value of Earth Observations: Methods, Practical Applications and Solutions
Objective

The use of Earth Observations (EOs) in decision making results in economic impacts to society that are difficult to quantify. The goal of this workshop is to identify methods and solutions needed to develop robust and reliable estimates of the value of EOs in decision making to assess and prioritize investments in EO research, development, and operations.

A variety of current methods and approaches for assessing the value of EOs will be considered including broad benefits assessments conducted by surveys, case studies for specific applications, as well as studies that address cost-saving or innovation applications. A set of five example applications will be examined through derivation of value-chains, focusing on a broad range of risk mitigation issues. Workshop participants will address the effectiveness of value chains in understanding the benefits of EOs in decision making and will identify the types of information for representative applications needed to assess the economic impacts of EOs in decision making.

Workshop results will be documented in a summary strategic document describing the methods and use of value chains to quantify the societal benefits of EOs and to identify types of information that can be routinely collected to support enhanced and recurrent impact assessments.
WORKSHOP SCHEDULE

Day 1 - Monday, October 23

9:00 AM  Welcome Address
Monica Grasso, NOAA
Carl Shapiro, USGS
Alessandra Tassa, ESA
Geoff Sawyer, EARSC

9:20 AM  Round Table Participant Introductions
Participants provide 15 second self-introductions

9:30 AM  Methodologies: Session 1
Moderator: Steven Ramage, GEO Secretariat

1. Andreas Veispak “Demonstrating the value and benefits of the Copernicus Programme”

2. Alan Smart “Methodologies for evaluation”

3. Stephane Hallegatte “Simple assessments of the benefits from early warning systems and stronger hydro-meteorological systems”

4. Andy Coote “Value Chain and Cost-Benefit Analysis applied to 3D Geo-information”

11:15 AM  Coffee Break

11:30 AM  Methodologies: Session 2
Moderator: Steven Ramage, GEO Secretariat

1. Gerald Kinn “ESRI Perspective”

2. Rudy Schuster “Communicating the value of Landsat imagery using case study narratives”

4. Rich Bernknopf “A decision framework for quantifying the economic value of information of Earth Observation: Case of the NASA Gravity Recovery and Climate Experiment (GRACE) enhanced Drought Severity Index”

5. Geoff Sawyer “A bottom-up approach to assessing the value of satellite EO data”

1:15 PM Lunch

2:15 PM Introduction to Value Chains and Processes Panel: Session 3

Moderator: Emily Pindilli, USGS

1. Tim Stryker, USGS
2. Jeff Adkins, NOAA
3. Jamie Kruse, East Carolina University
4. Yusuke Kuwayama, Resources for the Future

3:45 PM Break

4:00 PM Value Chains Forum: Session 4

Moderator: Jay Pearlman, FourBridges

Open Discussion on Value Chains, Data/Information Requirements, and Instructions for Developing Value Chains and Identifying Data Requirements in Topic Areas

4:25 PM Wrap up of Day One and Plan for Day Two

4:30 PM Adjourn
Day 2 - Tuesday, October 24

9:00 AM  Welcome Address, Recap of Day One, Plan for Day Two

9:30 AM  Value Chain Development Working Groups (group members predetermined) for Monitoring and Forecasting:

  Group 1: Effect of Increasing Temperatures on Human Health
  Group 2: Flood Events; Mitigating, Managing, and Avoiding Impacts to Safety and Property Damage
  Group 3: Harmful Algal Blooms; Effects on Human Health, Recreation, and Tourism
  Group 4: Energy and Mineral Supply; Mitigating, Managing, and Avoiding Impacts of Shortfalls on Economy
  Group 5: Effects of Natural Hazards on Transportation Systems; Effects on Mobility, Safety, and Economy

10:30 AM  Break

11:00 AM  Identifying Data Requirements Work Groups (same groups)

12:00 PM  Lunch

1:00 PM  Group Sharing Activity (describe results of working session)

2:15 PM  Break

2:30 PM  Guidance Document Scoping

  Moderators: Monica Grasso, NOAA & Carl Shapiro, USGS

  - Participants will be engaged in discussion of a Guidance Document that uses the Methodologies, Value Chains and Information Needs determined during the workshop to provide recommendations for ongoing socio-economic data monitoring and next steps

3:30 PM  Wrap up, Next Steps and Commitments

4:00 PM  Adjourn