



2023 GeoGov Summit: *Imagery and Mapping for the Future*

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

USGS Mission and Vision

The **USGS mission** is to monitor, analyze and predict current and evolving dynamics of complex human and natural Earth system interactions and to deliver actionable information at scales and timeframes relevant to decision makers.

Vision Statement: Lead the Nation in 21st-century integrated research, assessments, and prediction of natural resources and processes to meet society's needs.



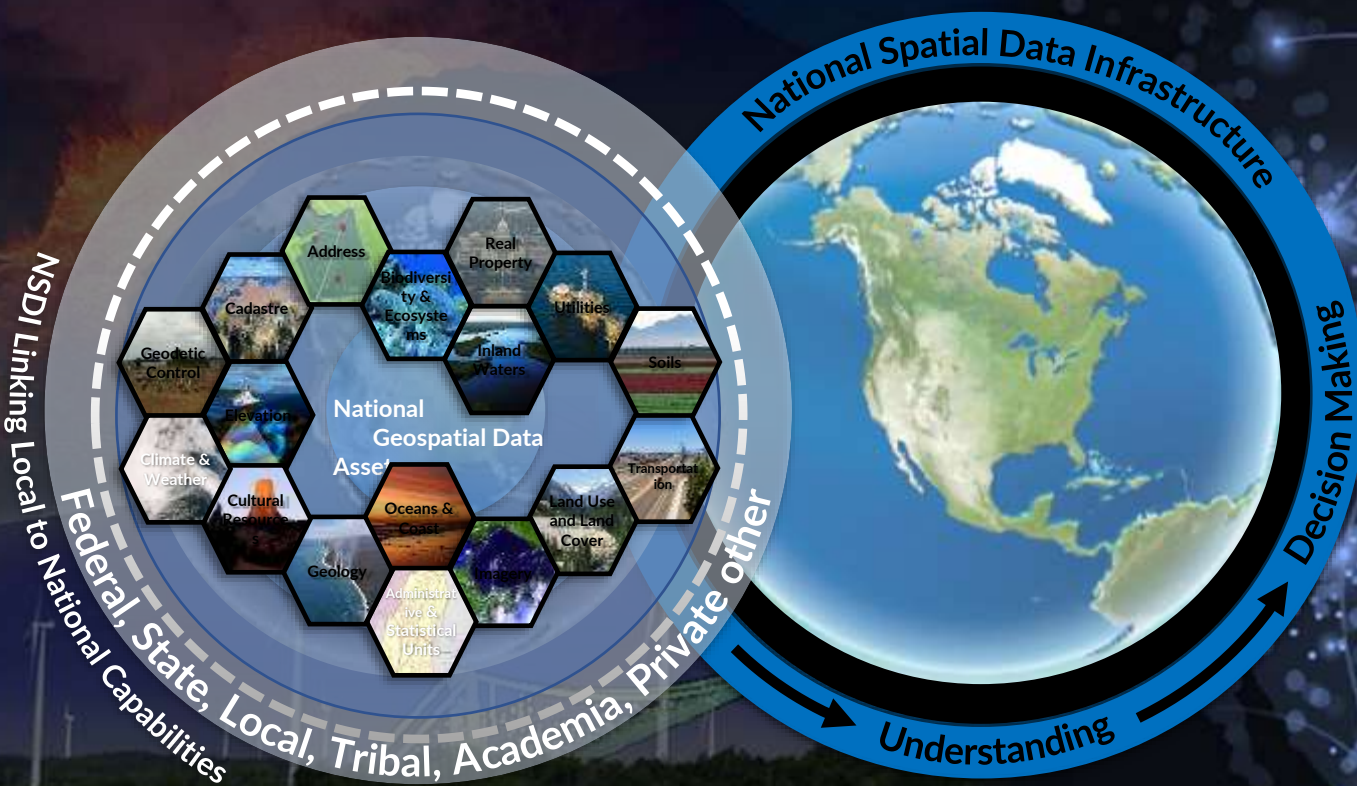
Federal Geographic Data Committee



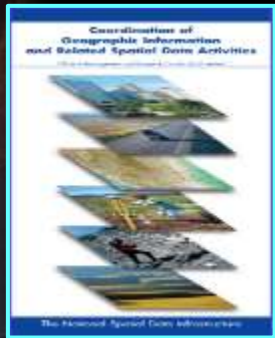
The Federal Geographic Data Committee (FGDC) was established in 1990 to coordinate the Nation's geographic-information and spatial-data activities

Enabling the National Spatial Data Infrastructure (NSDI)

Enabling Place-Based Understanding and Decision Making to Solve our Nations Toughest Challenges



Looking Back: A Legacy of Progress in Spatial Data Infrastructure



Circular A-16 called for “development of a national digital spatial information resource



Established Geospatial Clearinghouse Network



Established Geospatial One-Stop



Established GeoPlatform



FGDC Endorses Standards



Geospatial Data Act enacted



Released 2021 – 2023 NSDI Strategic Plan

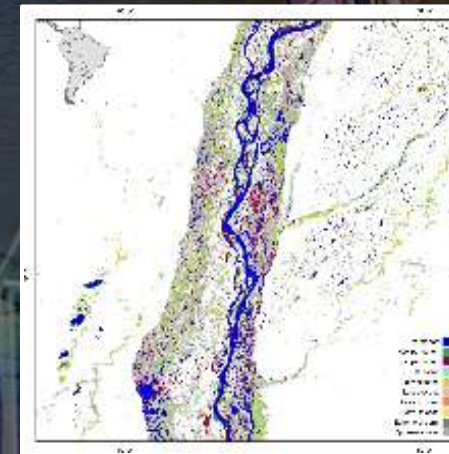
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Initiated development of next NSDI Strategic Plan

Successes: Landsat - The 'Backbone' of Earth Observation

- Nearly five-decade record of land cover, land use, and vegetation condition
- Large area coverage for global, continental and regional land cover studies
- Landsat remains the most cited land remote sensing system in the peer-reviewed scientific literature—and the citation rate is increasing



Global Forest Watch provides a "near-real time" view of deforestation (and reforestation) around the world using millions of Landsat images through Google's cloud computing and online access (<https://globalforestwatch.org>)



Global Surface Water Change, Pekel, et al., Nature 2016



Mapping Global Cropland, Phalke, et al, ISPRS 2020

Successes: Land Change, Monitoring, Assessment, and Projection

Monitoring:

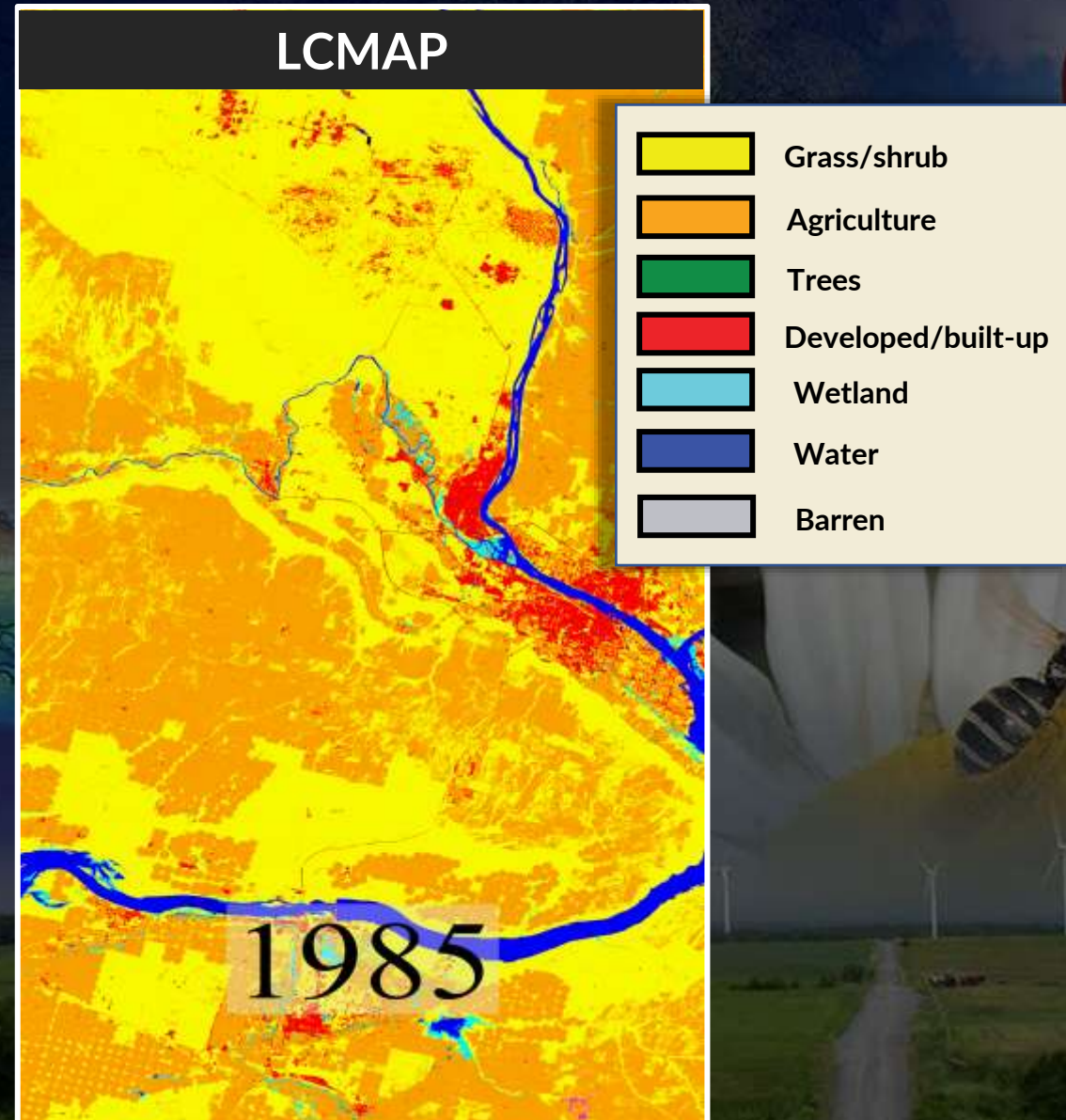
Continuous tracking of land surface change using Landsat Analysis Ready Data

Assessment:

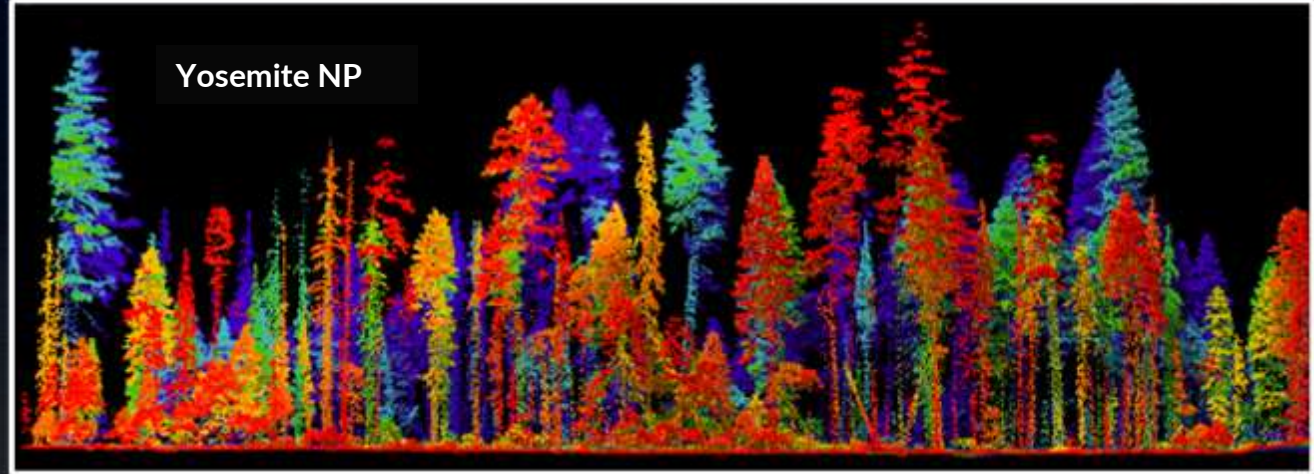
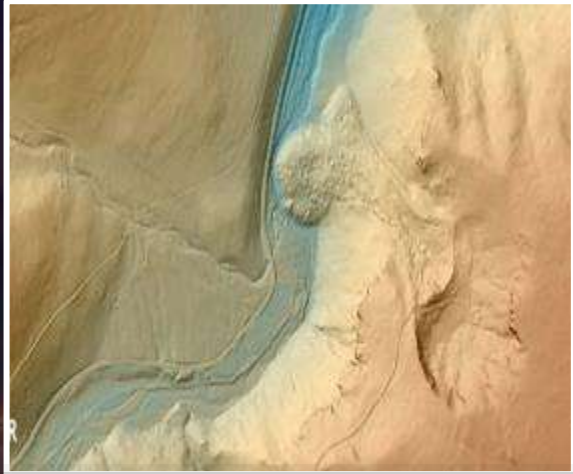
Summarizing landscape change, its causes, and consequences

Projection:

Modeling past and future landscapes and facilitating applications



Successes: USGS 3D Elevation Program



1

Requirements and Benefits Study



\$13B

Potential annual benefit with ROI of 5:1



> 300

Partner Organizations



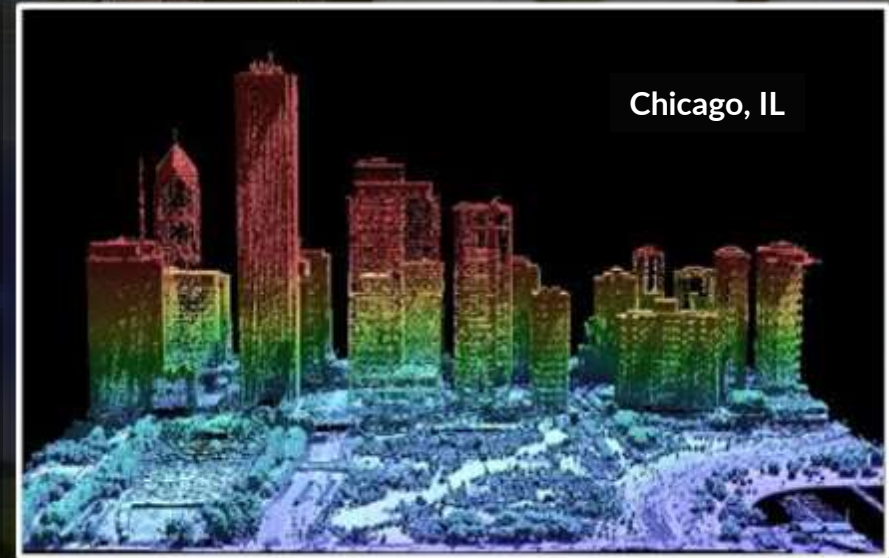
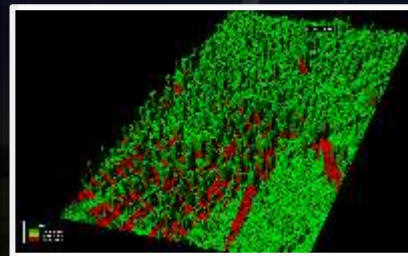
64

Percent of total 3DEP cost contributed by partners



50 Trillion

Lidar data points being distributed



Successes: Climate Mapping for Resilience and Adaptation

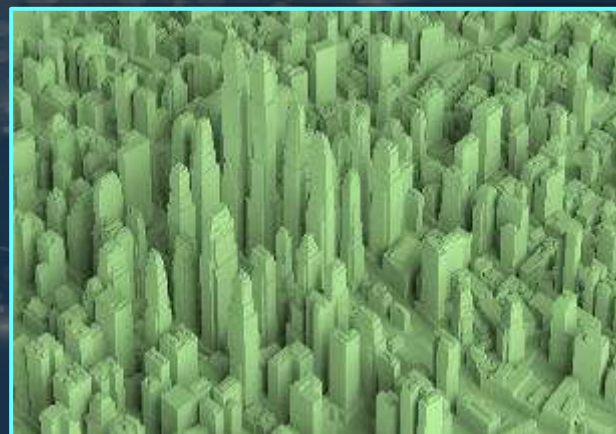


Climate Mapping for Resilience and Adaptation

Knowing which hazards could harm the things you care about is the first step in protecting them. This portal can help you understand what climate-related hazards you face, now and in the future.

- View real-time maps showing where climate-related hazards are occurring today
- Check how your exposure to five common climate-related hazards is projected to change over time
- Learn more about climate-related hazards and federal policies relevant to climate adaptation
- Find federal funding opportunities that can help pay for climate resilience projects, including those available through the Bipartisan Infrastructure Law.

Mapping for the Future



U.S. National Spatial Data Infrastructure (NSDI)
Advancing the Geospatial Capabilities for the Nation

Questions?



Get more information at

www.usgs.gov

