

The Geographic Approach to Environmental Justice

Sunny Fleming



What Is a GIS?

A System for Managing, Sharing and Applying Geographic Information

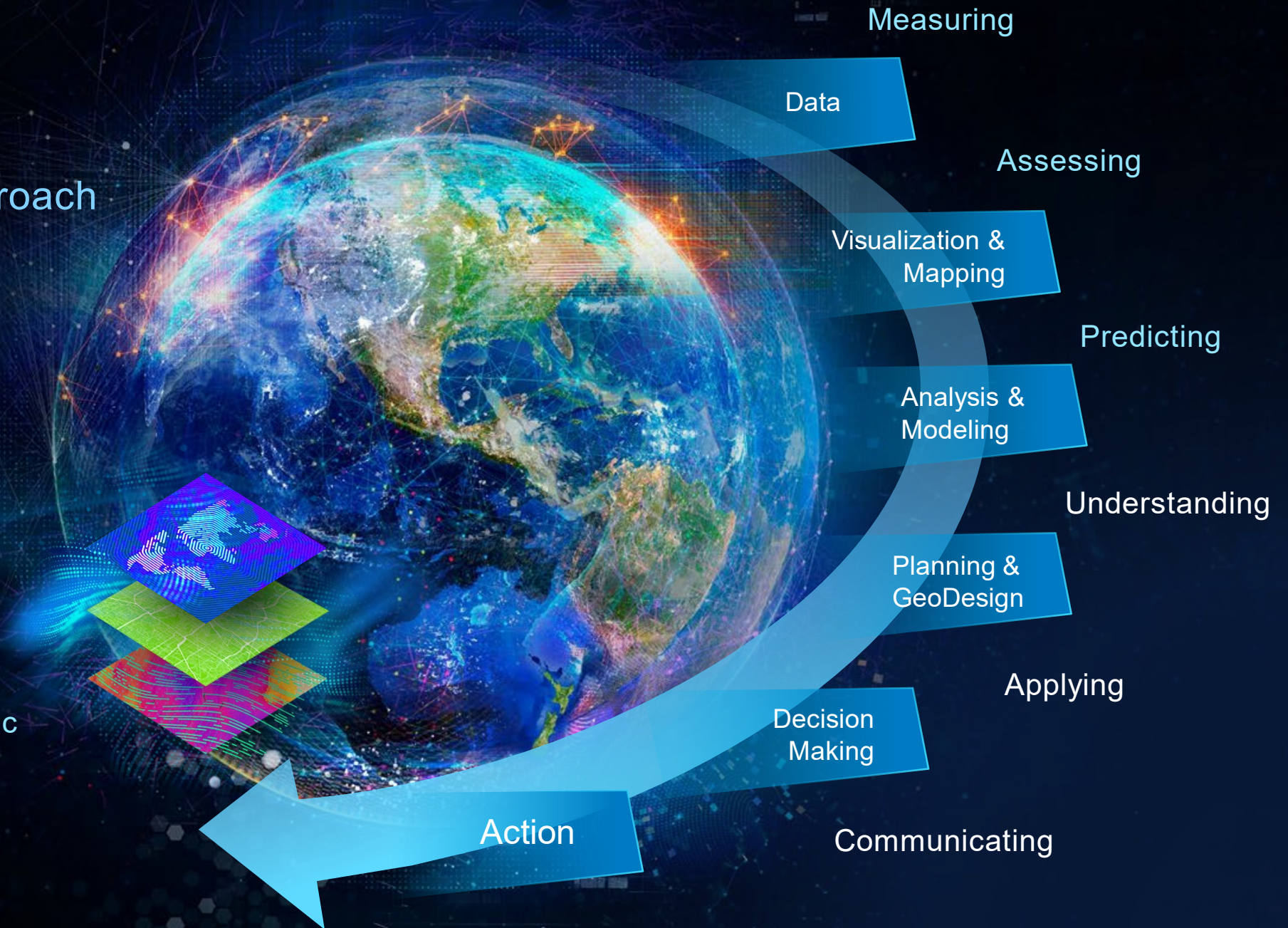


GIS

Enables The
Geographic Approach

Providing a Process
and Framework . . .

. . . For Applying Geographic
Knowledge Widely



GIS

Applied in Many Fields

Economic Development

Pollution

Nature Conservation

Health

Energy

Transparent Government

Natural Resources

Climate Change

National Security

Science & Technology

Business

Environment

Water Resources

Agriculture

Social Conflicts

Urbanization & Development

Natural Disasters

Infrastructure

*Helping Organizations Do Their Work Better
Delivering Business Value Everywhere*

Our Daily Environment...

The Undercurrent To Everything We Do



Safe
Water



Clean
Land



Fresh
Air

Consequences of an Unhealthy Environment

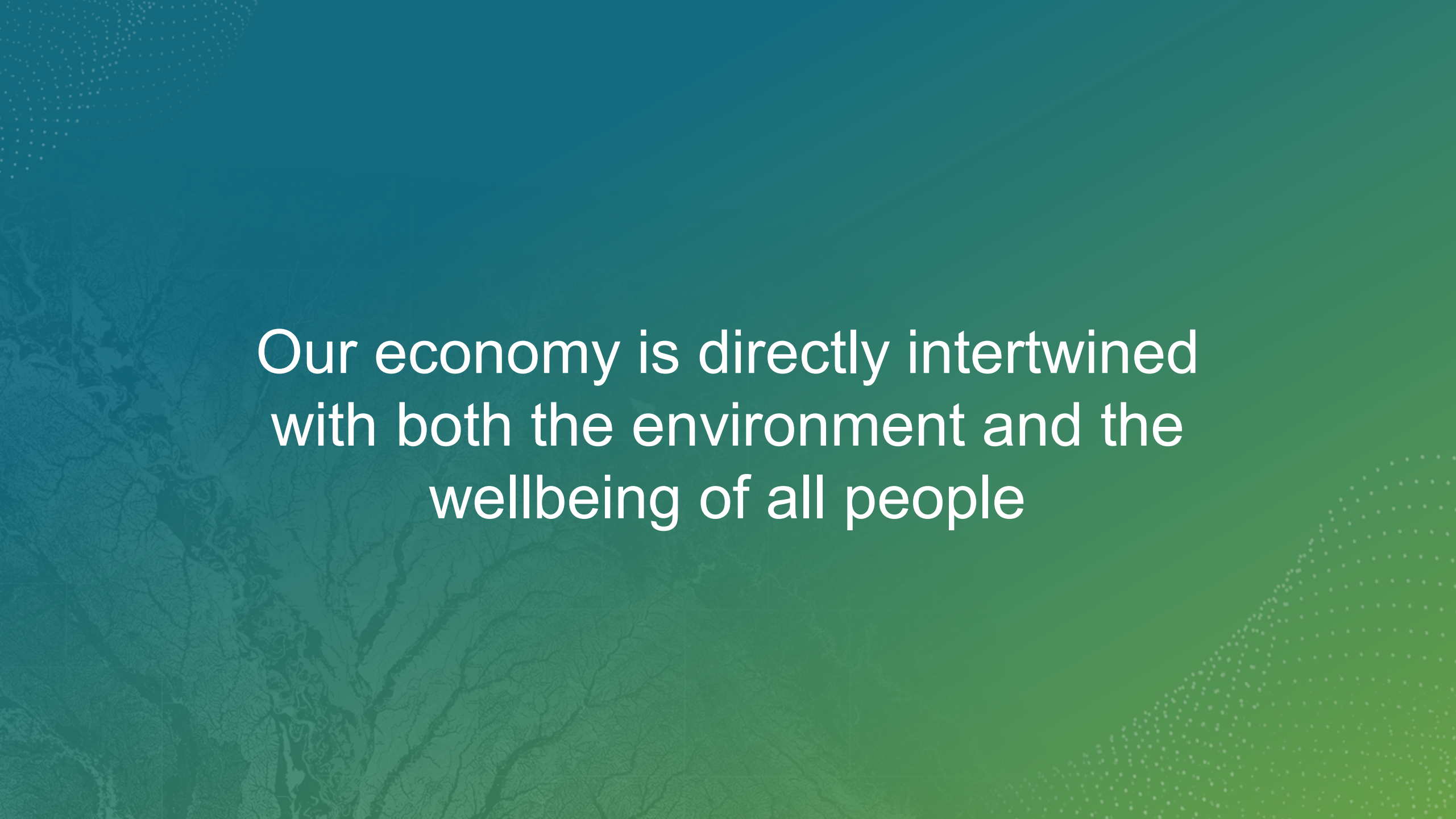
Distributed unevenly across a geography



Economic Impact

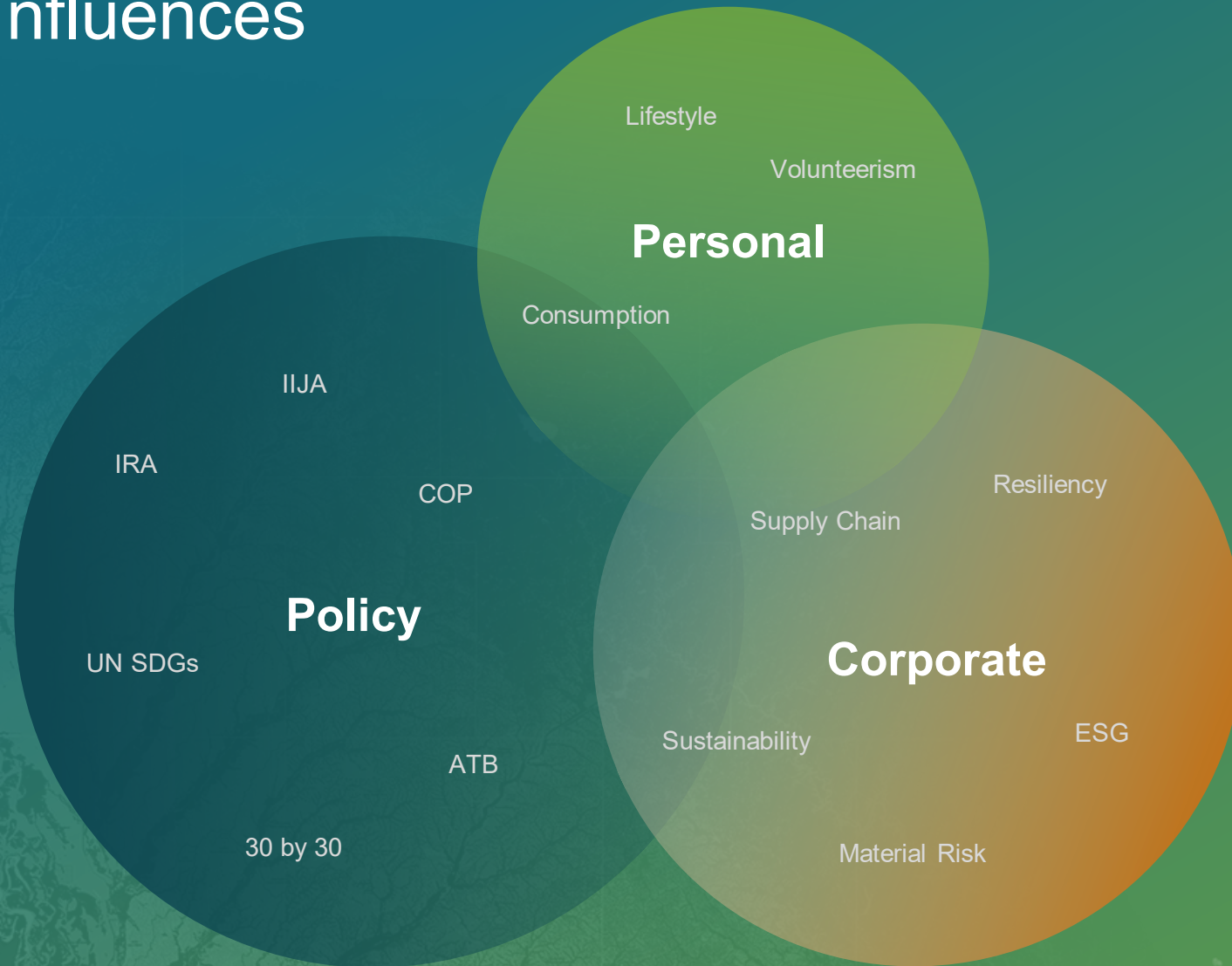
- **1-4 to 3.7-10% GDP** : lost to climate change in the US
- **\$8 Billion, annually** : cost of wildlife/vehicle collisions
- **\$7-13 Billion in insurance costs** : 2020 Wildfire Season
- **\$40 Billion over 10 years** : cost of US flooding (increasing)
- **\$8 Trillion – \$22.9 GDP gains** by 2050 if we eliminated structural disparities (social/environmental equity)



The background is a gradient of teal and green. On the left side, there is a faint, textured image of a river flowing through a landscape. On the right side, there is a pattern of small, light-colored dots arranged in a grid-like fashion.

Our economy is directly intertwined
with both the environment and the
wellbeing of all people

Industry Influences



Federal Funding and the Role of Environmental Professionals

The Intent of the BIL and IRA

Continue Conducting Your Business



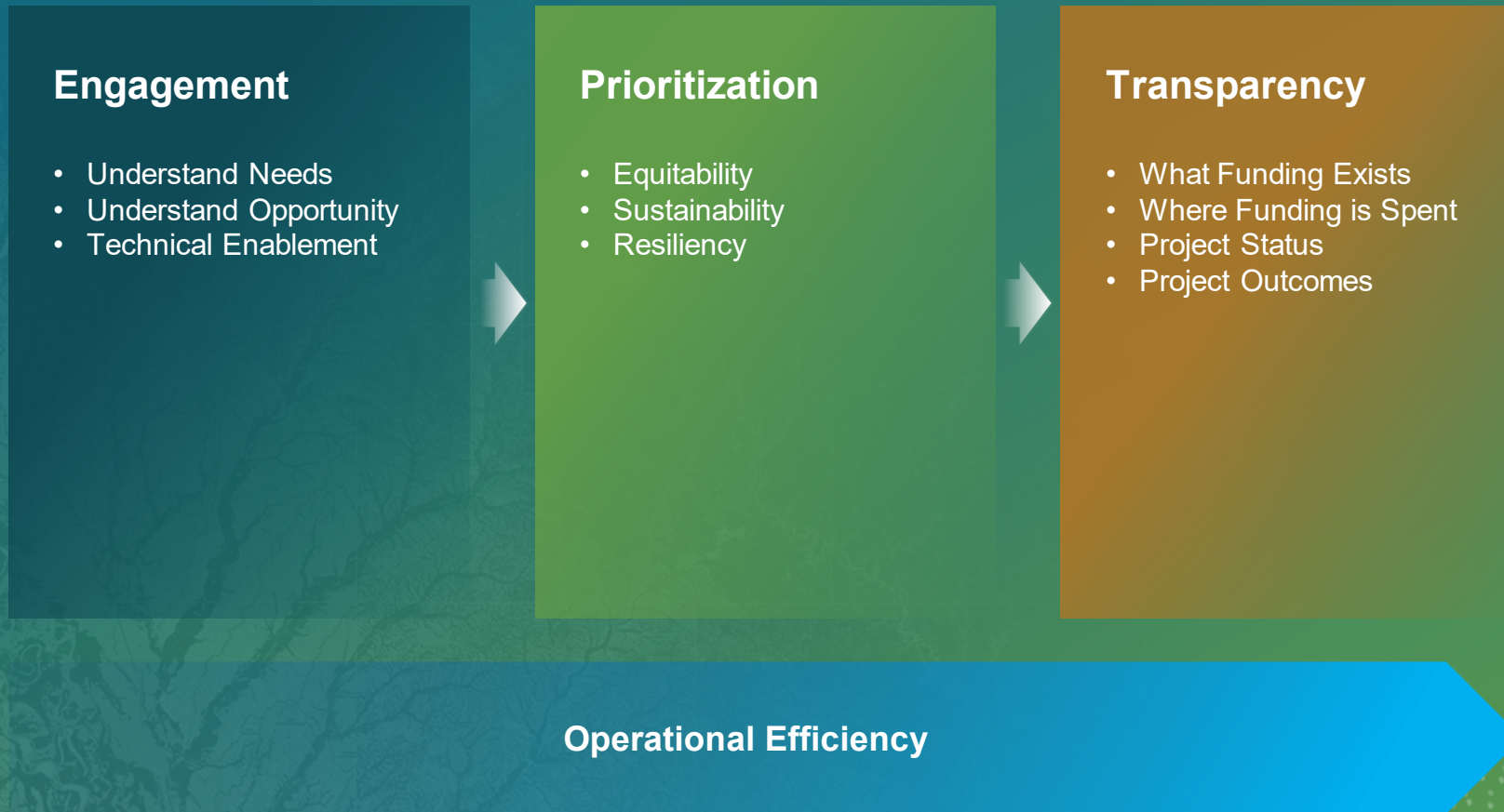
Do it Resiliently, Sustainably, and Equitably



Innovate!

Federal Funding and the Role of Environmental Professionals

Challenges posed by the BIL and IRA



ArcGIS Enterprise

The Toolbox for Environmental Agencies

Monitor Environmental Assets

- ArcGIS Field Maps
- ArcGIS Velocity
- ArcGIS Dashboards

Assess Environmental Burdens

- ArcGIS Pro
- ArcGIS Business Analyst
- ArcGIS Workflow Manager
- ArcGIS Insights



Ensure Compliance

- ArcGIS Survey123
- ArcGIS Image
- ArcGIS Dashboards

Measure & Report Outcomes

- ArcGIS Dashboards
- ArcGIS Story Maps
- ArcGIS Hub Premium

Environmental Organizations

Leveraging the Geographic Approach

MT DNR ARPA Hub

ARPA Water & Sewer Grant - Project Applications

DNR ARPA Round 2 Competitive Applications Dashboard (Best viewed on a desktop monitor)

ARPA PROJECT TOTALS

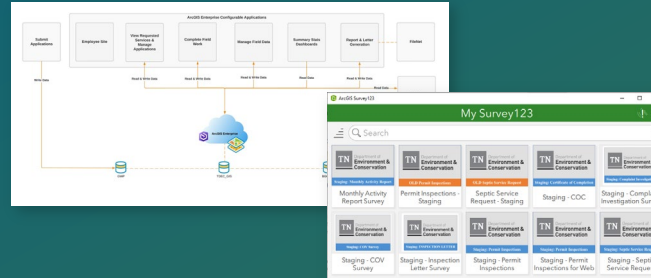
- ARPA Allocation: \$24,475,918
- Maximum Allocation: \$24.5M
- Competitive Total: \$221.4M
- Round 1 Competitive Applications: \$221,381,033
- Amount Recommended for Min Allocation Grant: \$17,230,664
- Total Project Match: \$276,357,866
- Round 2 Competitive Applications: \$522,214,816

ARPA Grant Management

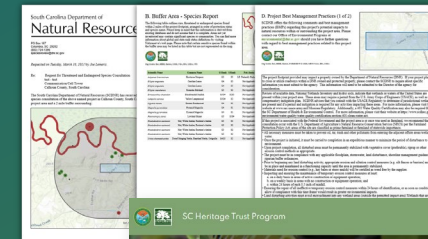
Schedule time to speak with a Grant Manager

Subrecipients of ARPA Water & Sewer Infrastructure grant funds are responsible for administering their projects in accordance with all applicable state and federal statutory and regulatory requirements. This page and its resources are intended to help DNR's subrecipients through that process.

TDEC Septic Permitting



SC DNR Enterprise Site for Environmental Review

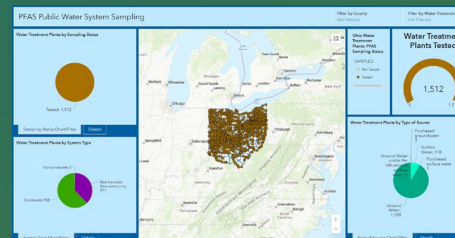


MI EGLE EV Infrastructure



MI EGLE Electric Schoolbuses

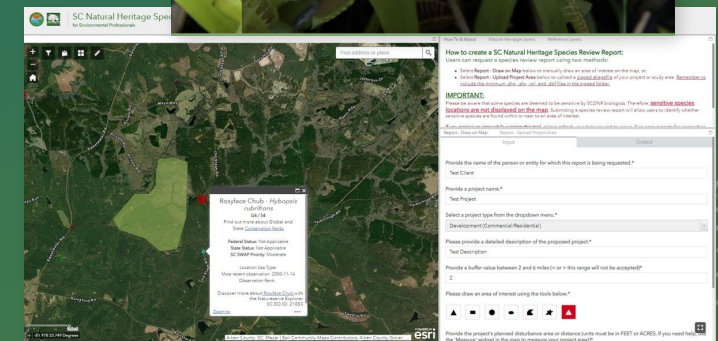
Ohio EPA PFAS Dashboard



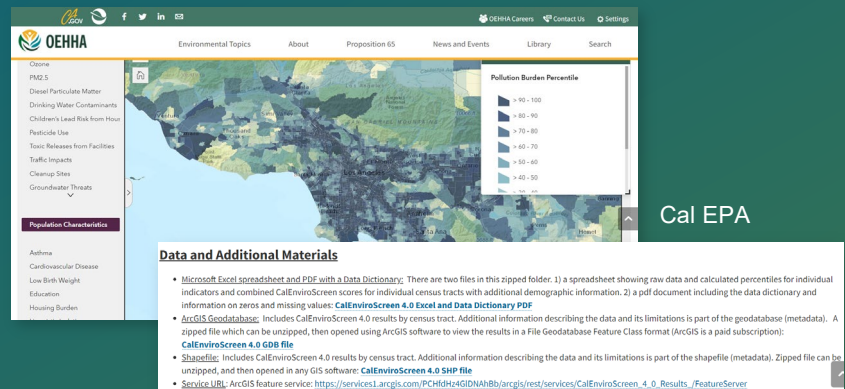
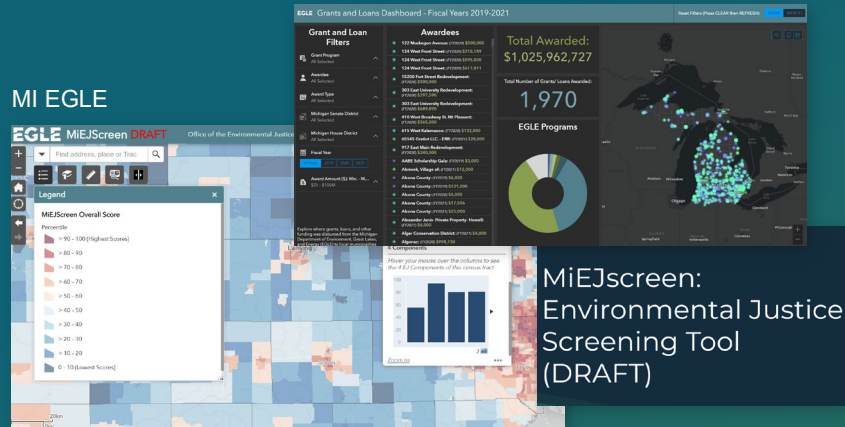
MT DEQ Abandoned Mine Lands Hub



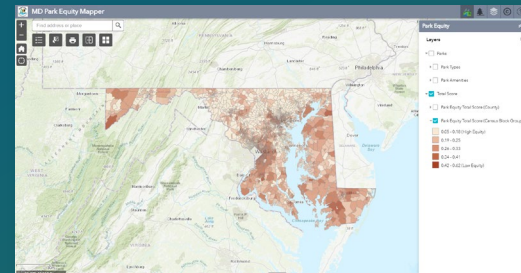
The screenshot displays the MT DEQ Abandoned Mine Lands Hub, featuring a map of Montana and a detailed list of project information, including the project name, location, and status.



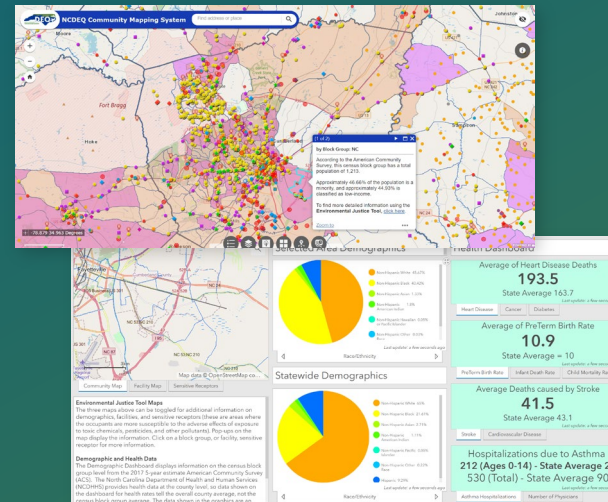
Environmental Justice



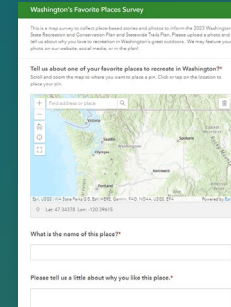
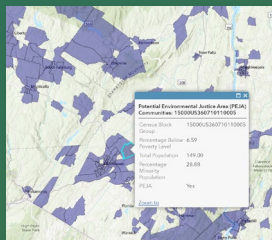
MD Park Equity Mapper



NC DENR



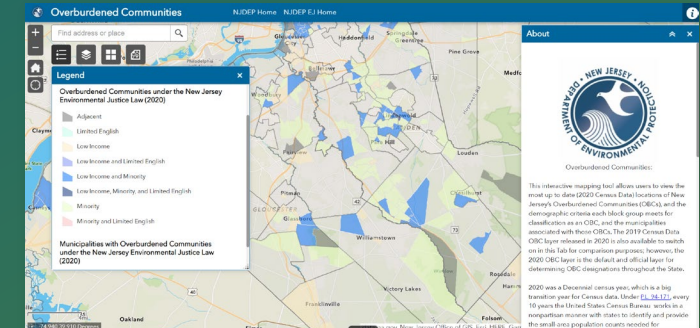
NYS DEC



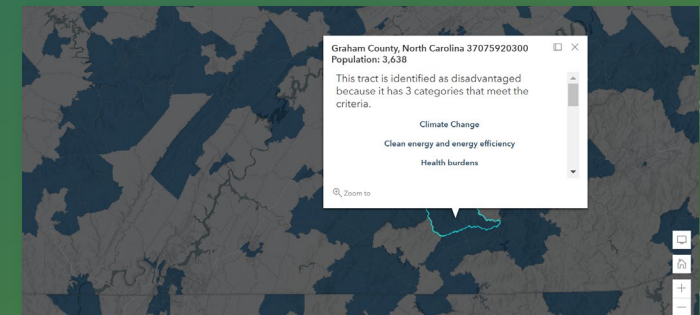
WA SCORP



NJ DEP

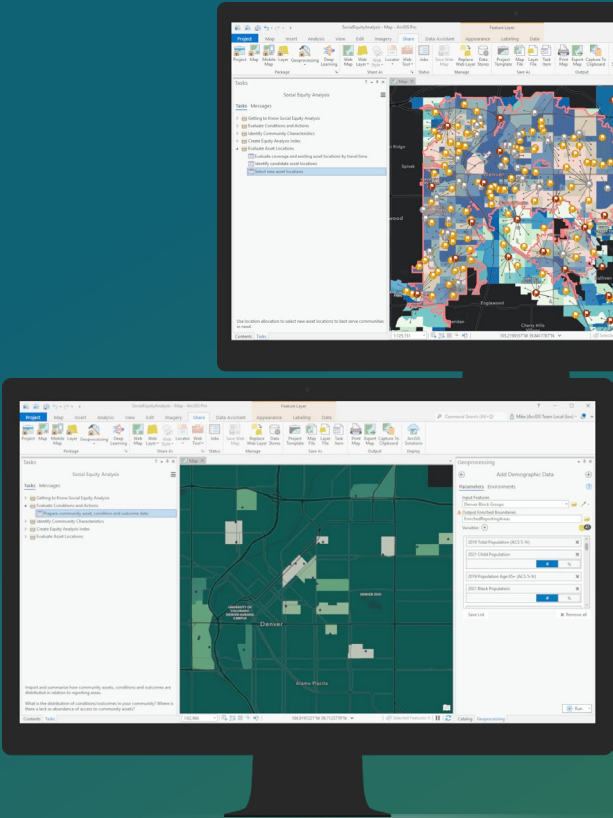


Esri Living Atlas – CEQ Justice 40 Nationwide Dataset

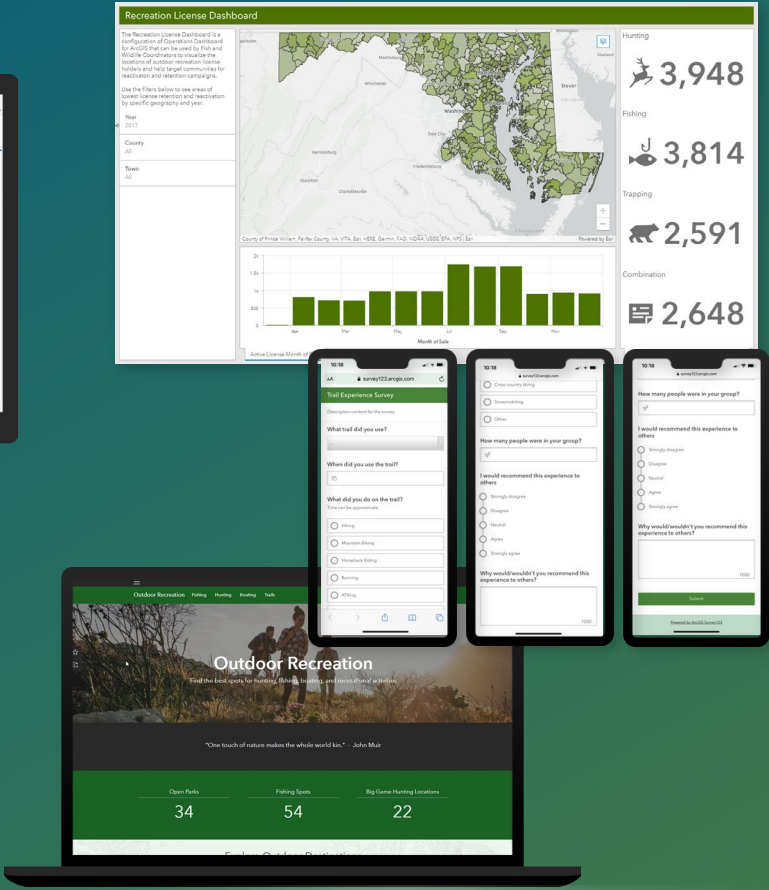


Getting Started: Esri Solutions

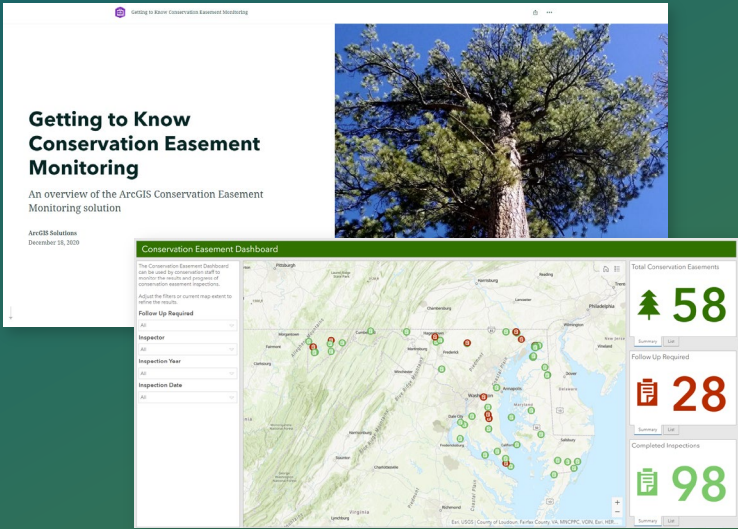
Social Equity Analysis Solution



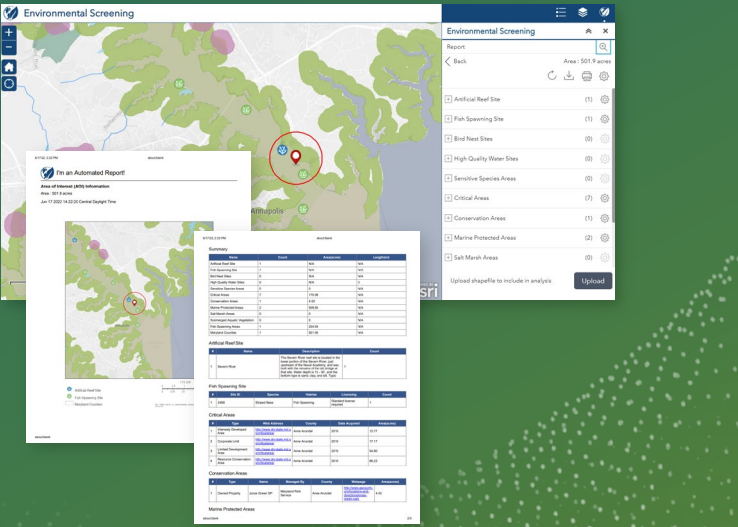
Land Use Outreach



Catch Basin and Outlet Inspections



Environmental Analysis





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OF
WHERE[®]**