

Scott Atkinson

Centre for Biodiversity and Conservation Science
ARC Centre of Excellence for Environmental Decisions
University of Queensland, Australia



mapx

MapX

**A platform to map and monitor natural
resources and the environment using the
best available data**

Photo credits: Ludovic Bernaudat





mapx

Outline:

- **MapX overview and background.**
- **Benefits of MapX.**
- **Video examples of interface capabilities.**

Photo credits: Ludovic Bernaudat

WHY USE GEOSPATIAL INFORMATION ?



WHO USES GEOSPATIAL INFORMATION TO INFORM DECISION-MAKING ?



National Challenges



Key problems faced by countries:

- Insufficient spatial information for risk identification
- Insufficient sharing of information among stakeholders
- Insufficient uptake of information in decision-making and impact monitoring by all stakeholders

20 countries asked how the UN and World Bank could use emerging technologies to address these challenges.

Information asymmetries lead to poor decisions & fragility

The digital revolution has given us greater access to data than ever before. However, in using this data to make better decisions about natural resources and the environment, stakeholders and UN agencies must address four key problems:



DATA
FRAGMENTATION



DATA QUALITY



DATA ACCESS



DATA IMPACT

Build a neutral online platform that can help stakeholders:

- **Share** best available data
- Make evidence-based **decisions**
- **Monitor** development impact

Bring together complex technical data – within a sensitive political environment – in an impartial way.



MapX vs Google Maps



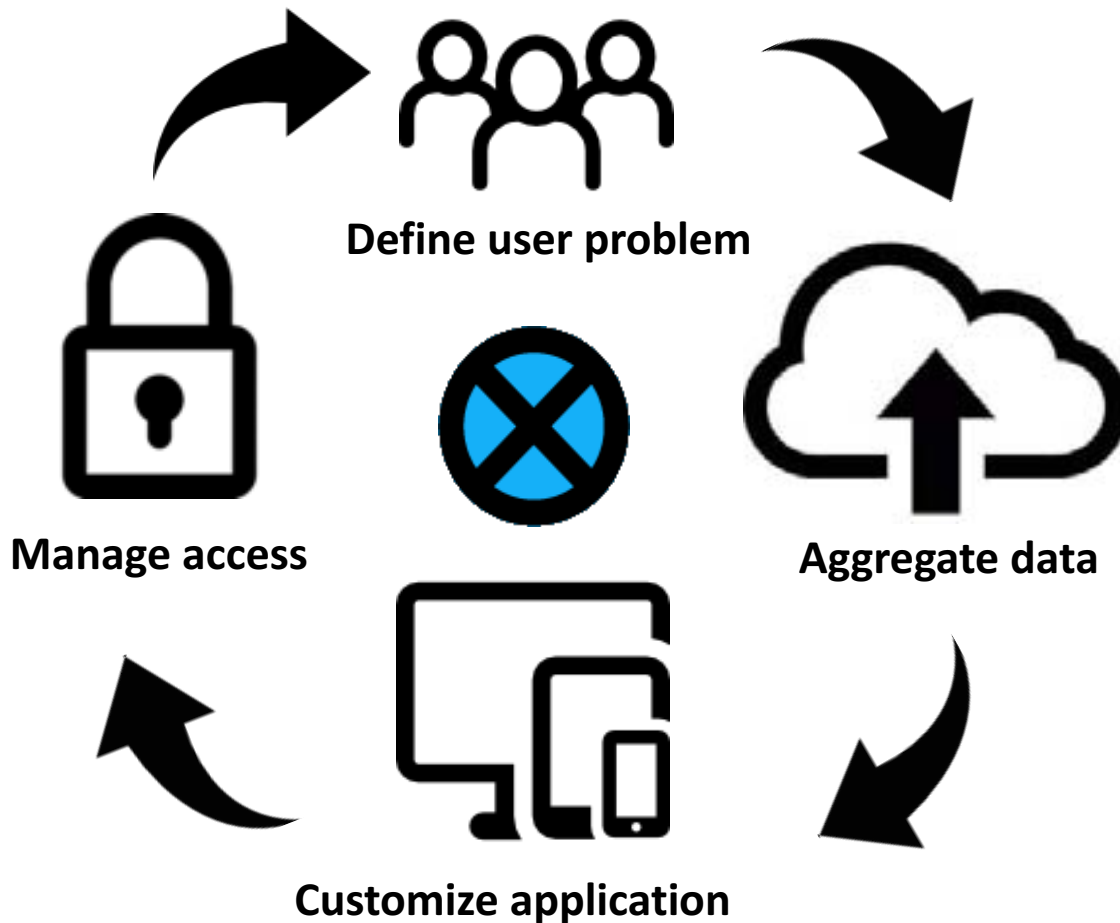
- ✓ Proprietary
- ✓ Directions & street view
- ✓ Satellite view
- ✓ Attributes
- ✓ iframe / API

- ✓ Open source / global public good
- × Directions & street view
- ✓ Satellite view
- ✓ Attributes
- ✓ iframe / API
- - + Spatial data layer import / stream
 - + Data integrity framework
 - + Intersection & risk heat map
 - + Time series
 - + Data filters, rollups & dashboards
 - + Areas of interest & alerts
 - + Dynamic story maps

Problem Oriented Platform That is Customized to Support a Specific Process and Set of User Needs



UN acts as an impartial and trusted third party to:



A single cloud-based backend system and data store that can power multiple front end applications



Recap MapX is a Cloud Platform Offering Geospatial Tools to Map and Monitor Natural Resources & the Environment



Global pool of best available data



Tools to contextualize, analyze and visualize



Alerts & dashboards for monitoring impact



Story maps for communicating and outreach



What are the Benefits of The MapX Approach ?



- 1. Increased data sharing, integration, access, and solution focus**
- 2. Strengthened data quality and confidence**
- 3. Improved risk identification and evidence-driven prioritisation**
- 4. Transparent monitoring of compliance and impact**
- 5. Streamlined and simplified reporting**
- 6. Dynamic communication of maps, photos, and videos**
- 7. Open-source**

HARNESSING THE POWER OF SPATIAL DATA TO MAP AND MONITOR BIODIVERSITY:



MapX Demo



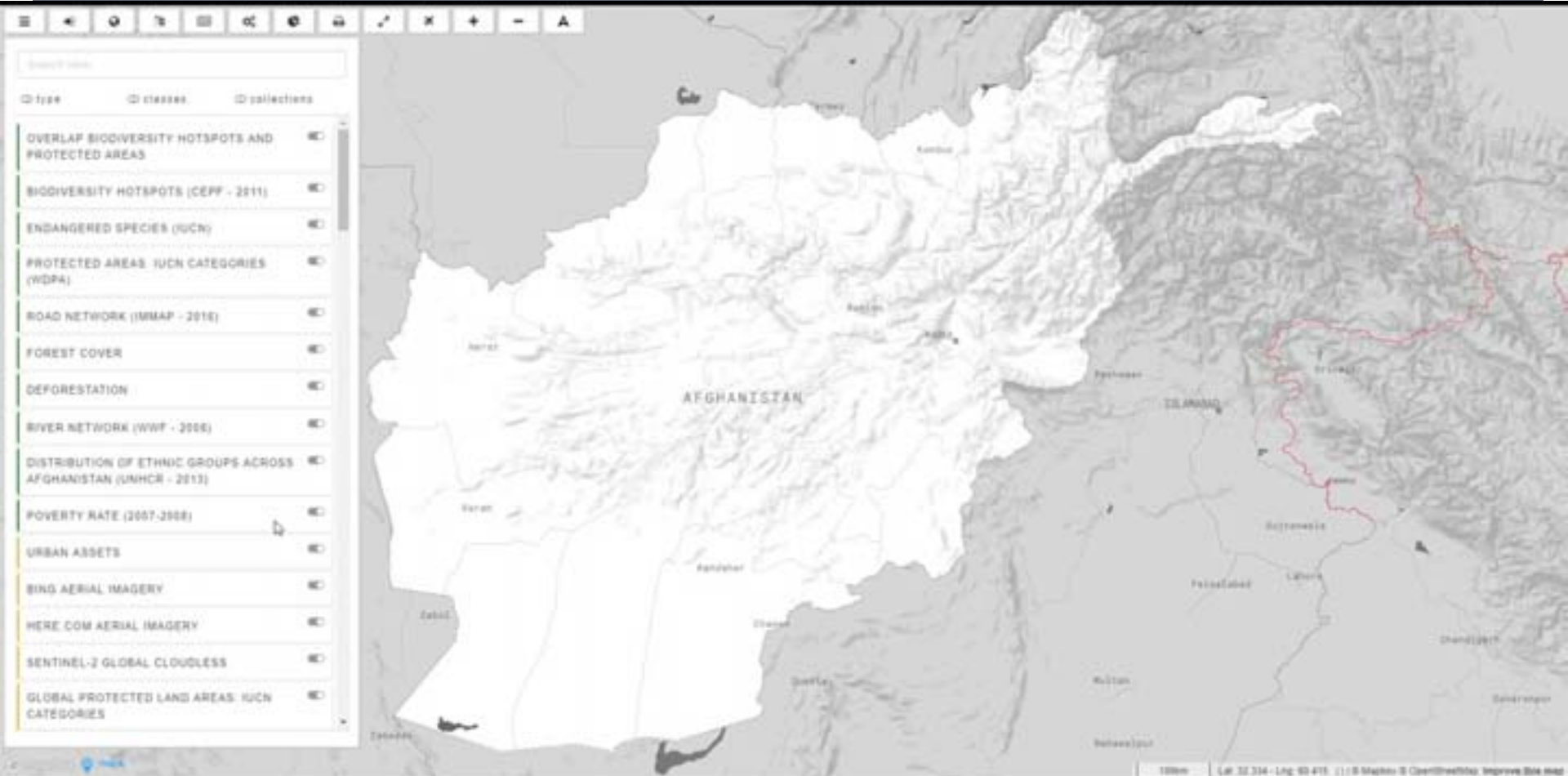
Relevant Datasets for National Reporting



Filter and Query Datasets

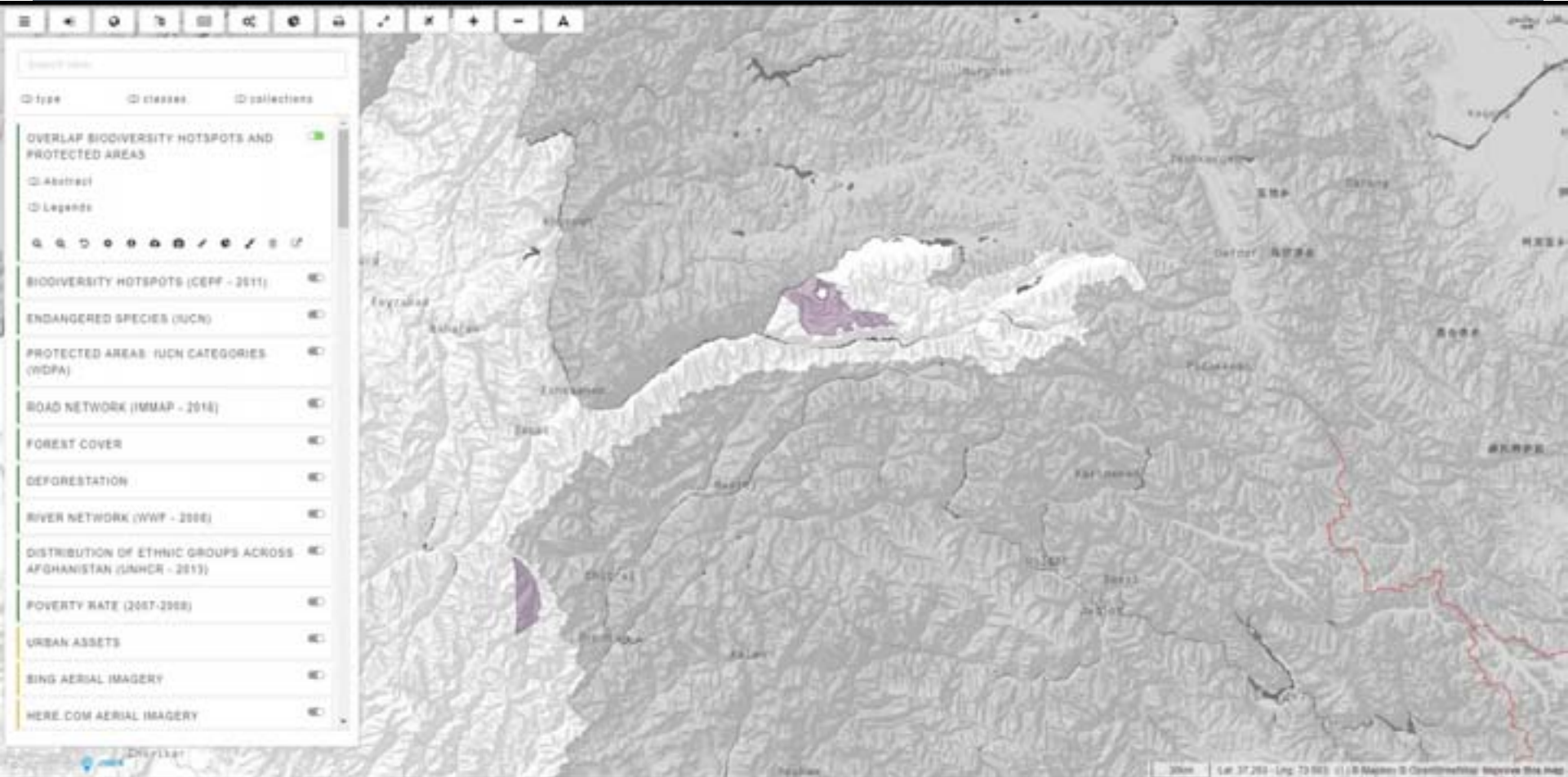


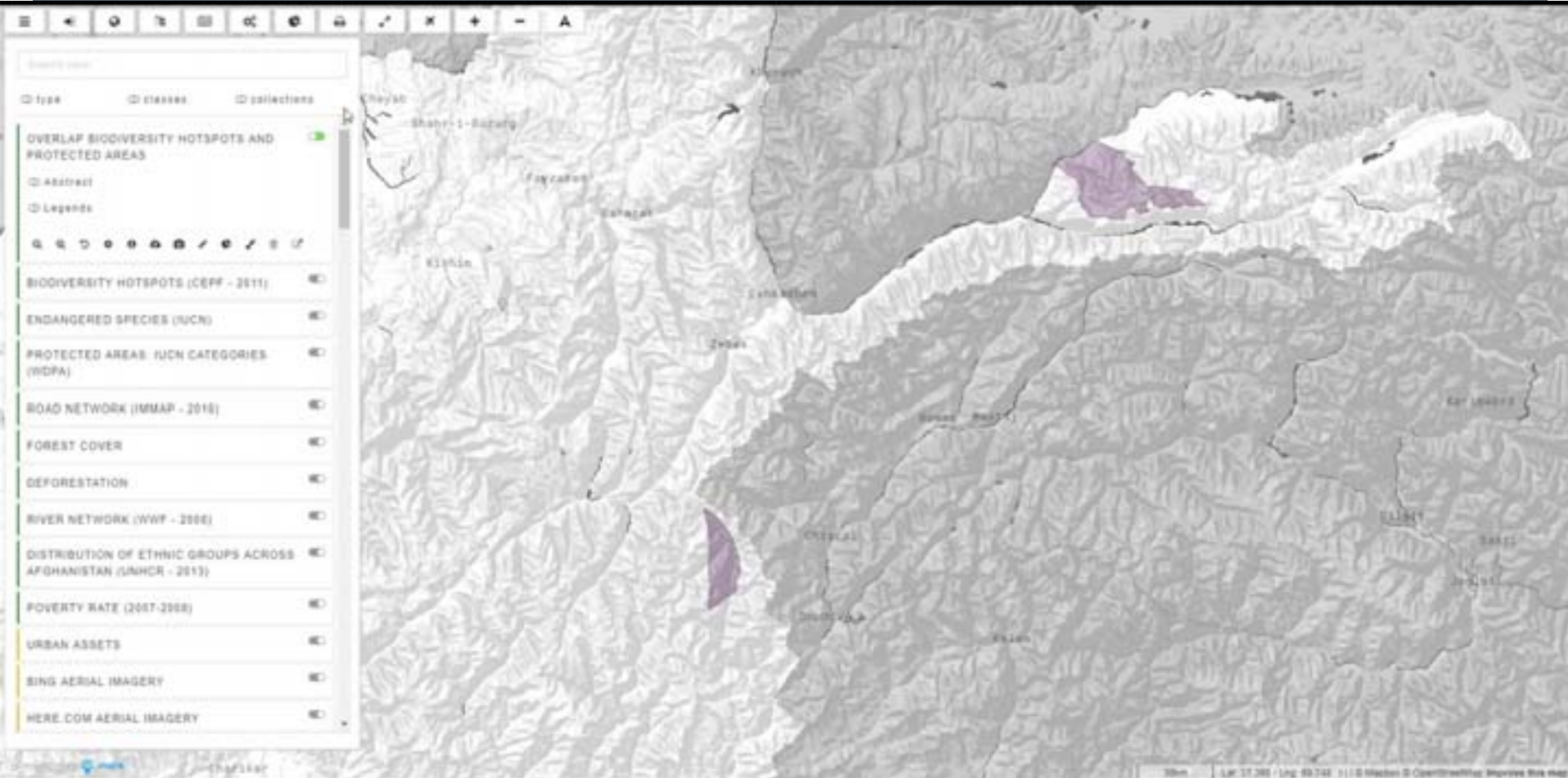
Contextualize Datasets with Socio-Economic Data



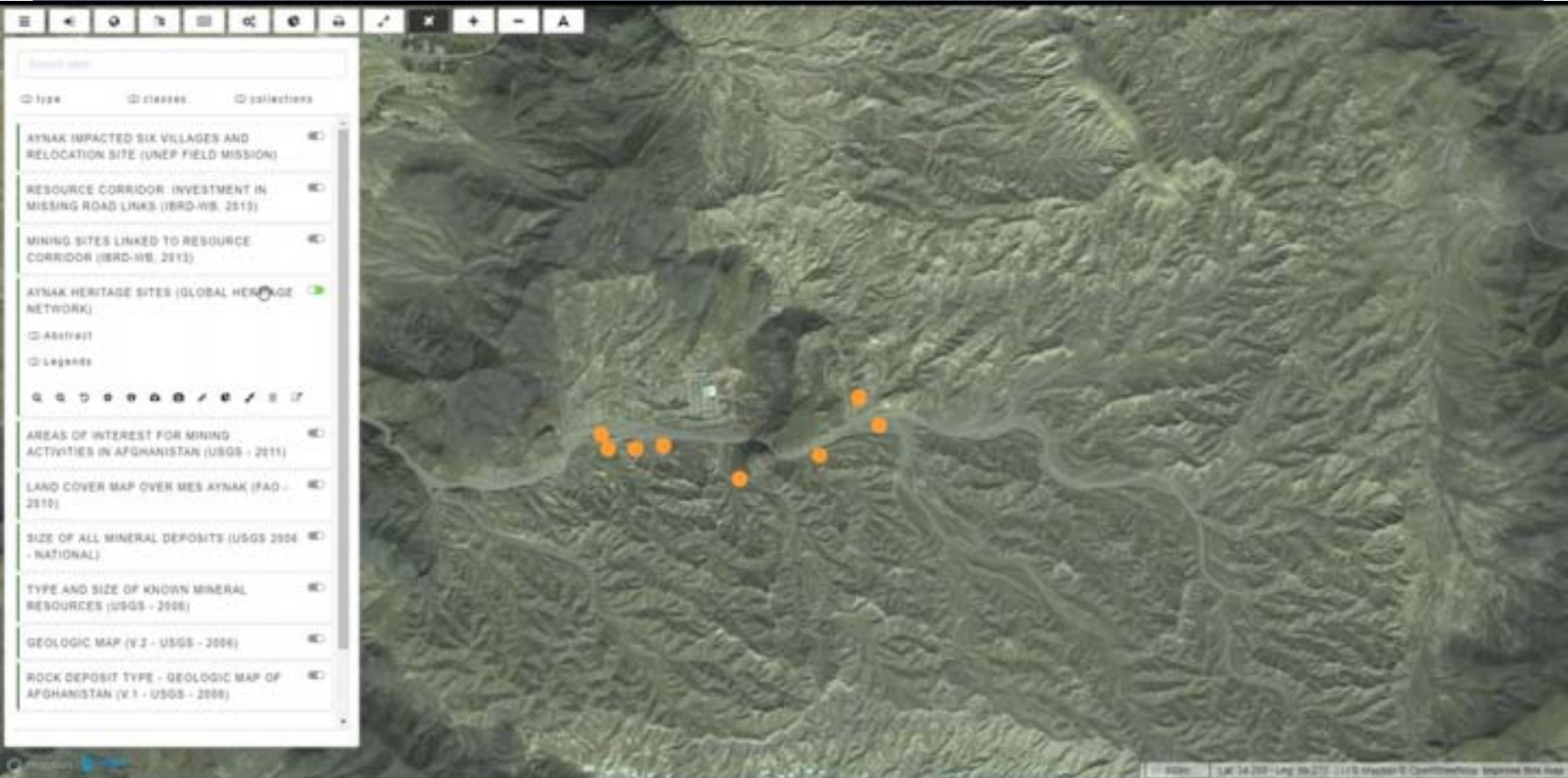


High-Resolution Satellite Images





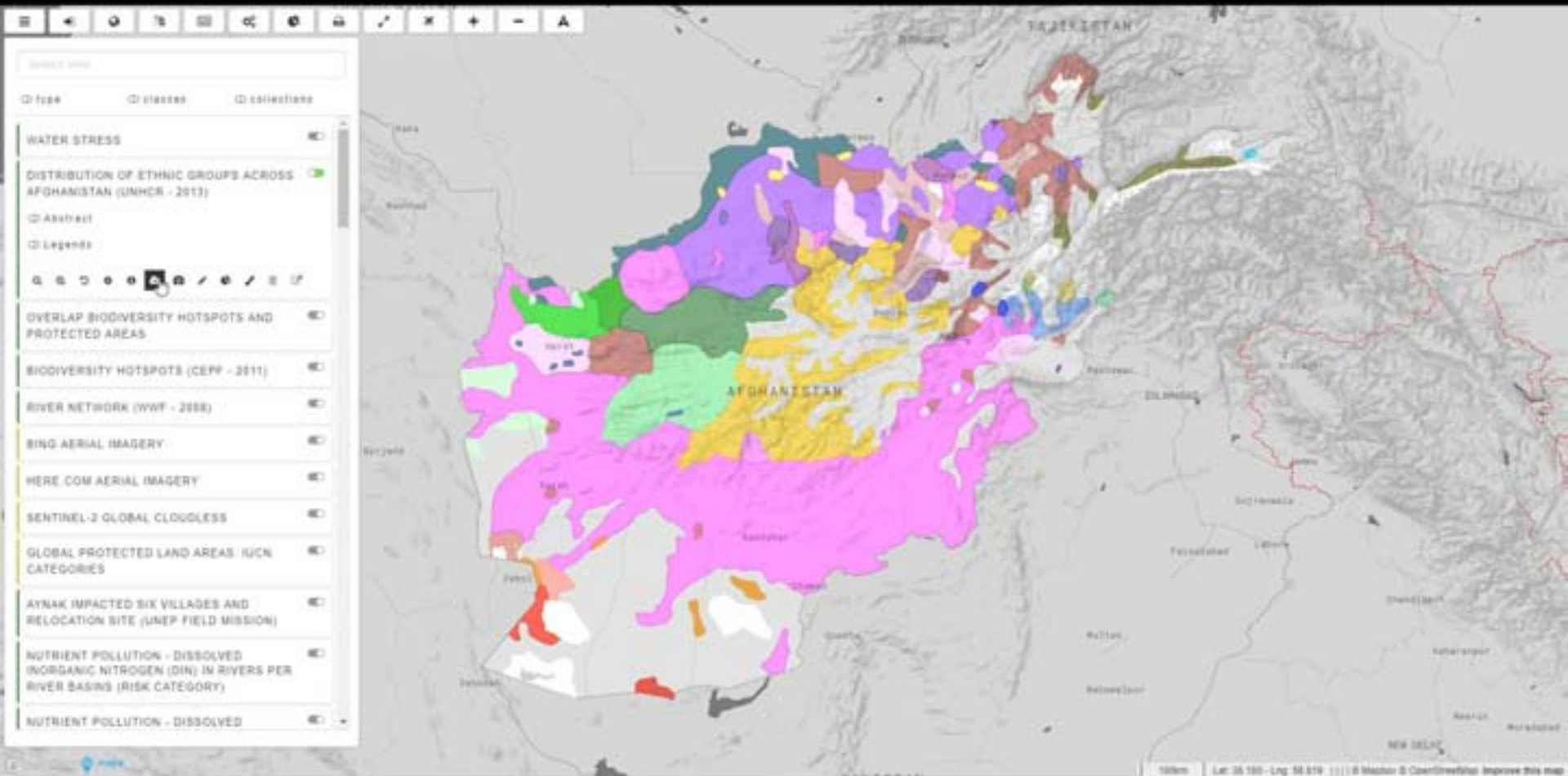
Control and Secure Data Access



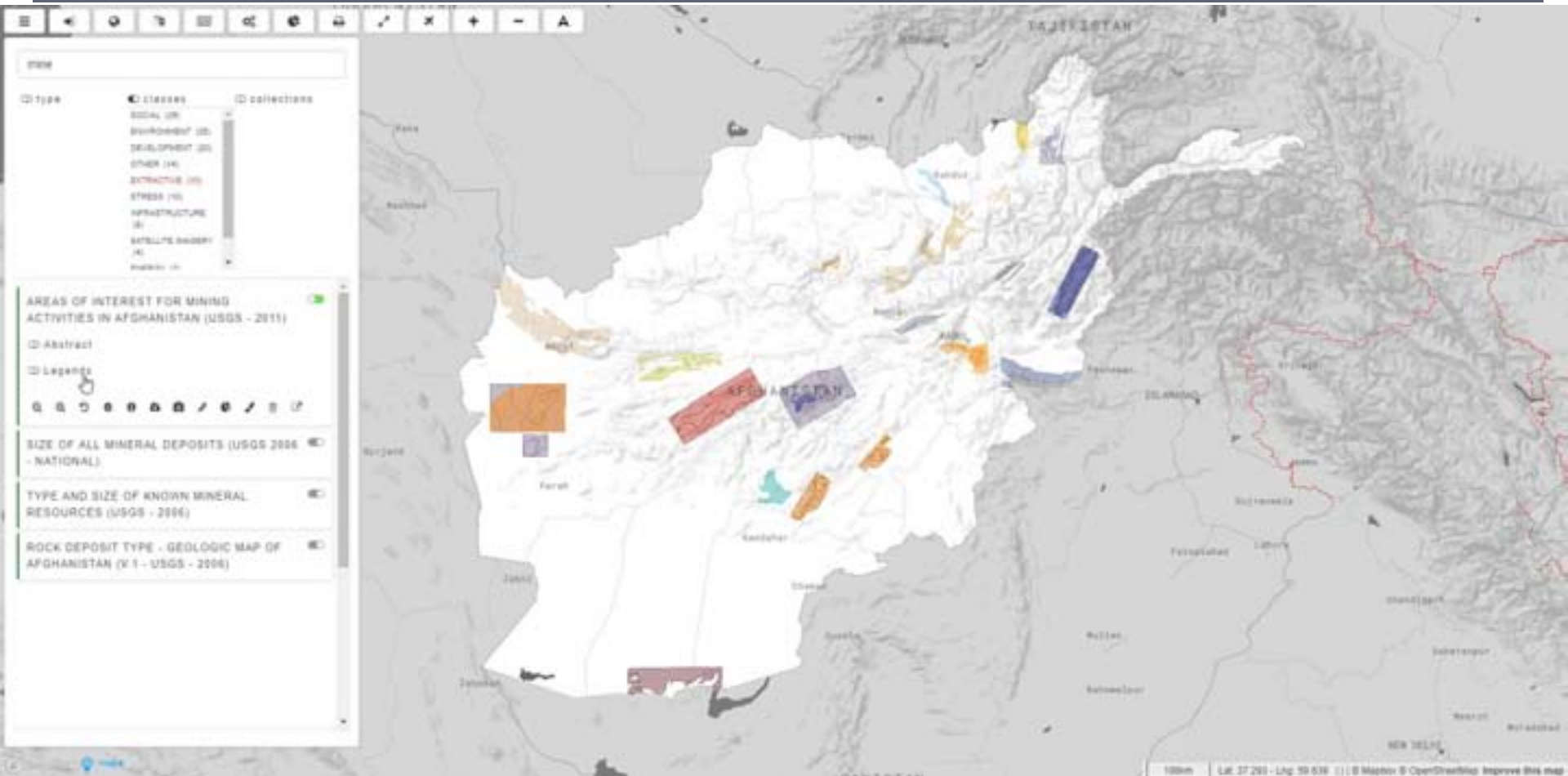
Upload Spatial Data



Export and Download Datasets



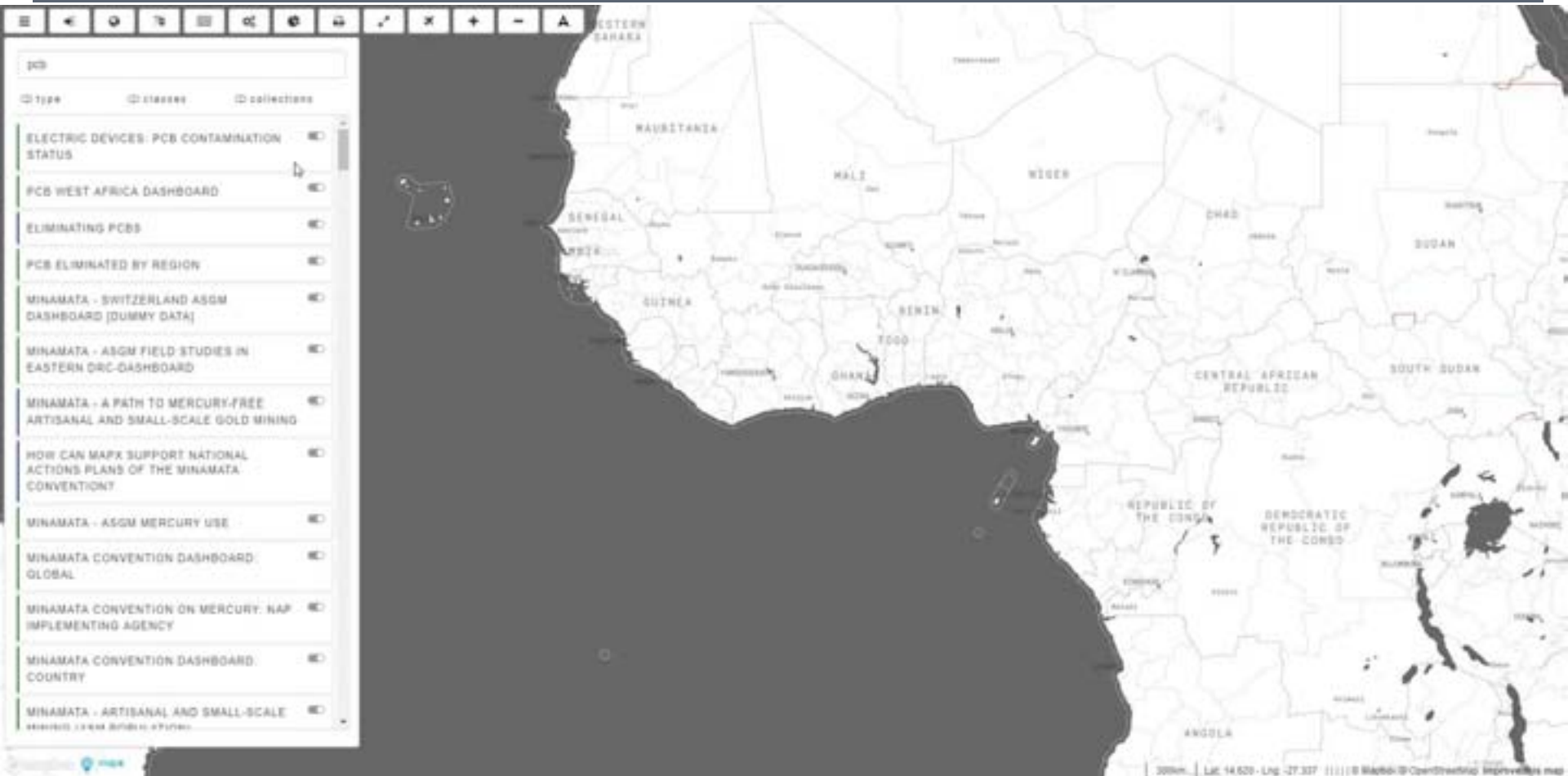
Create Maps from Selected Layers



Visualise Data Over Time

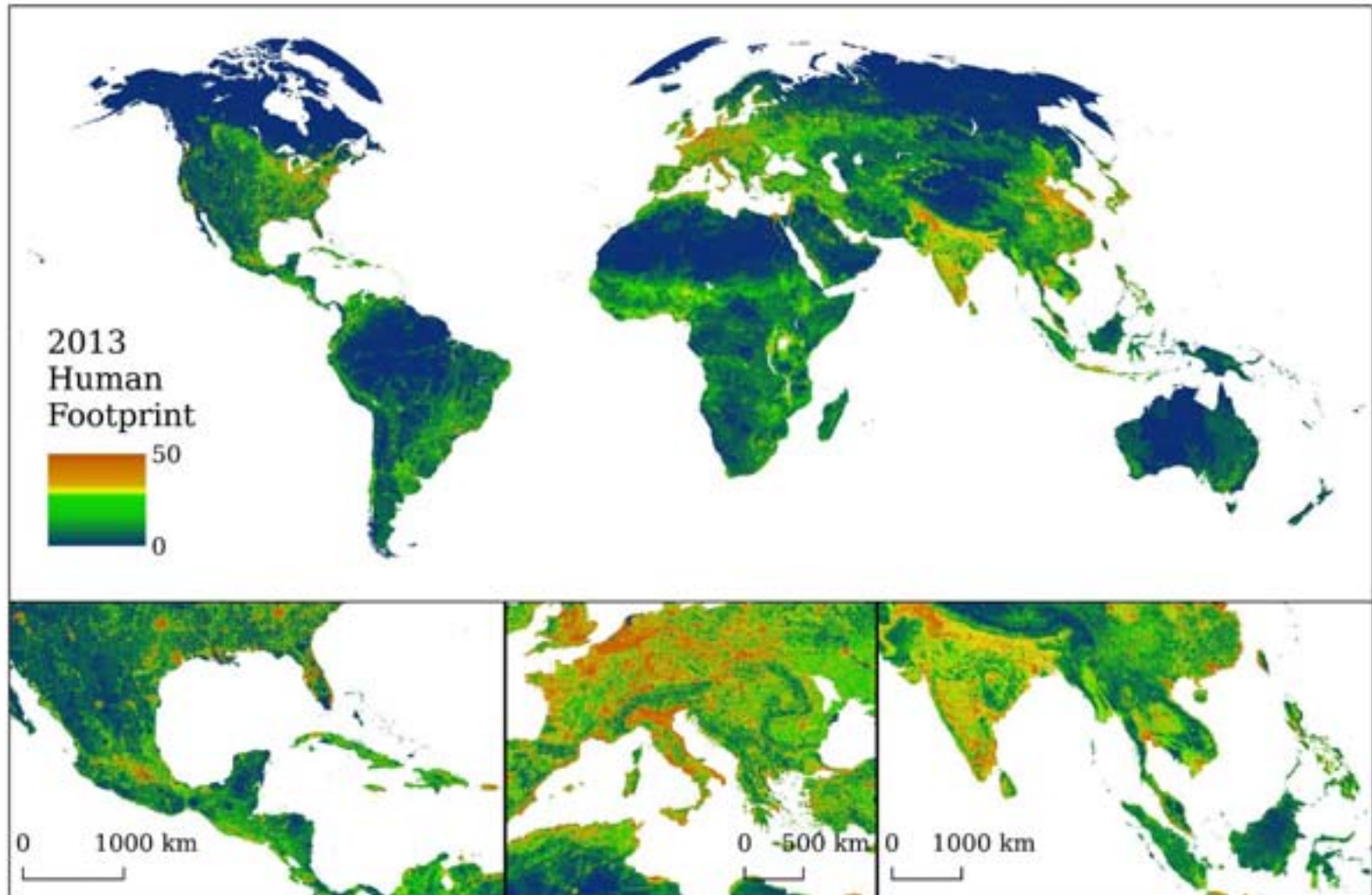


Customized Dashboards for Data Monitoring

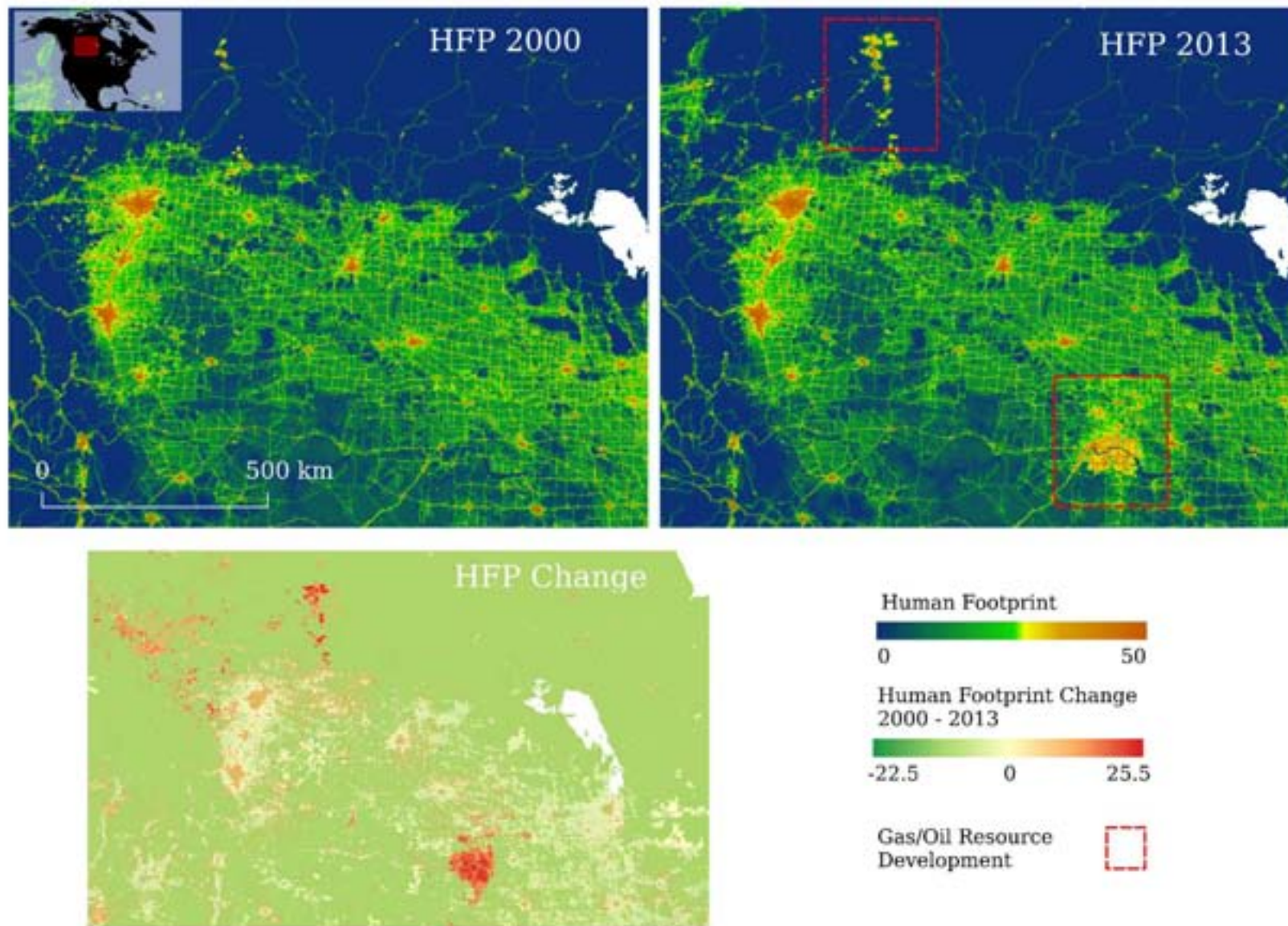


- Improved map making.
 - More data layers and data providers, e.g., Human Footprint, intact forests
 - Systematic prioritisation (Marxan, ILP, etc.)
 - Integrated help for NP?
 -
-
- What would help your country!

Human Footprint



Human Footprint Change



UNDP and MapX – Partnering to Provide Geospatial Intelligence to National Biodiversity Strategies and Action Plans



[ABOUT](#) [CONTACT](#) [ARTICLES](#) [PROJECTS](#) [APPLICATIONS](#) [TRAINING](#) [ACCESS MAPS](#)



A cloud solution for mapping and monitoring the sustainable use of natural resources

Scott Atkinson
s.atkinson@uq.edu
scottconsaulatkinson@gmail.com

www.mapx.org