

CHALLENGES IN CREATING THE NEW NGS CARTOGRAPHIC DATABASE

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NGS Cartographic Database 2.0

CDB 1.0 to CBD 2.0

Atlas based at 1:5,000,000 to imagery based at 1:200,000

Foundational

Database for use across non-profit and media work

Map Policy

Data—and particularly base maps—with our policies and brand built in

Core data

Hydrography, boundaries, populated places

Cartographic

For making maps (scale ranks, generalization, topology...)



| LIGHTING TALKS within a PRESENTATION

Sam

Data sources & licenses

Nat

Coastlines

Daniel

Harmonizing data

Alex

Geospatial data systems & sharing



The background of the slide features a dramatic scene of a massive, white iceberg floating in dark blue ocean water. In the lower right foreground, a scuba diver wearing a black wetsuit and fins is swimming towards the camera. The overall atmosphere is cold and aquatic.

|SAM: DATA SOURCES & LICENSING



LICENSE TYPES USED

1. Data developed by National Geographic

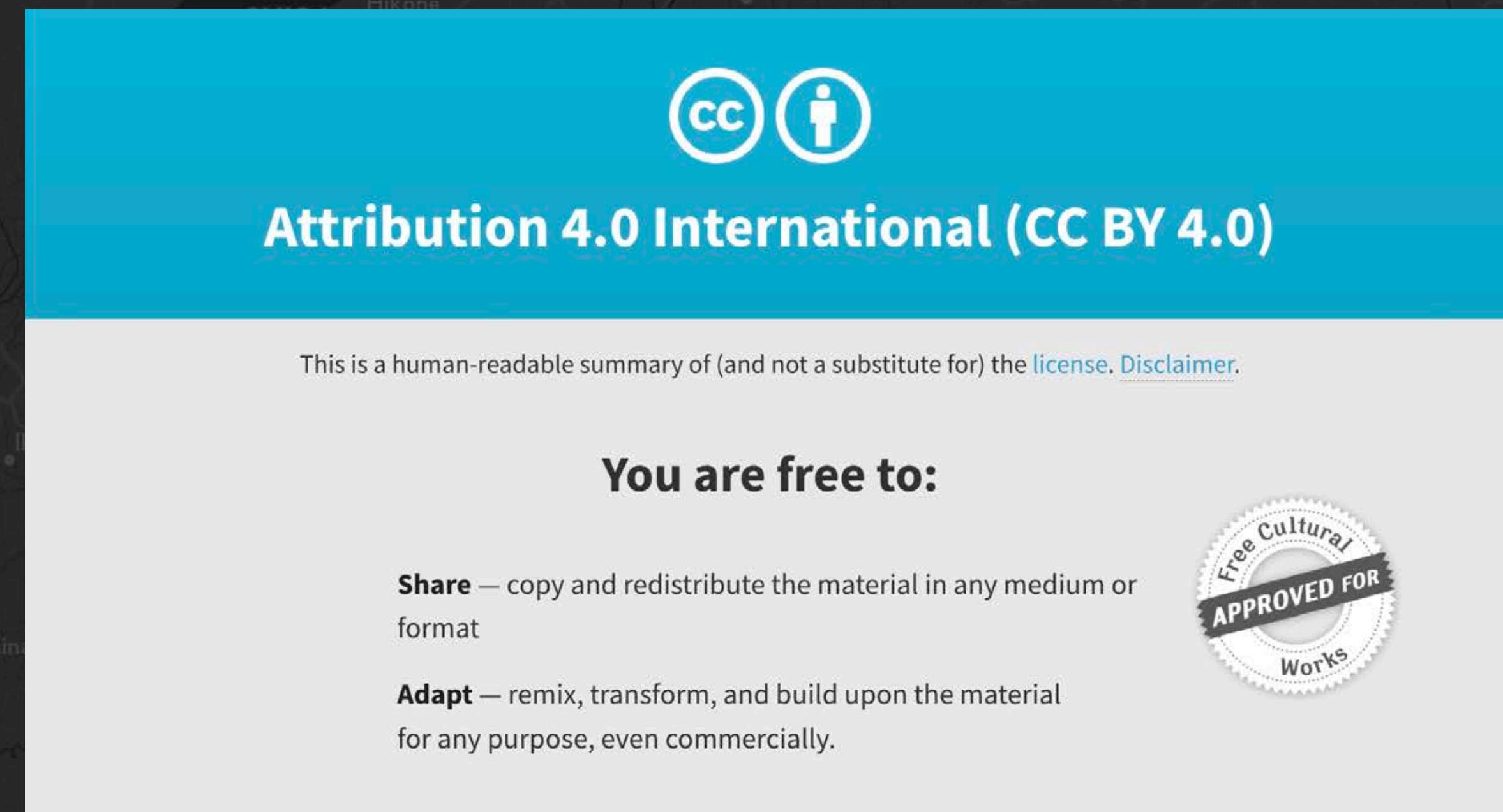
2. Data licensed from other providers

3. Open data!



OPEN DATA REQUIREMENTS

- High quality and high resolution
- Free, no contracts
- Available for nonprofit and commercial use



MOST COMMON LICENSES AND/OR USAGE SPECS

- CC BY (Attribution)
- Freely available with no restrictions on use
- Freely available with no restrictions on use, *given attribution*
- Written permission
- No license information provided
- Other specific named licenses functionally similar to CC BY

See our sources: <https://www.nationalgeographic.com/pages/article/about-our-basemaps/>



EXAMPLES

CC BY 4.0 (Ecuador)



ETAlab Open License 2.0 (France)

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- Mention the authorship of the Information

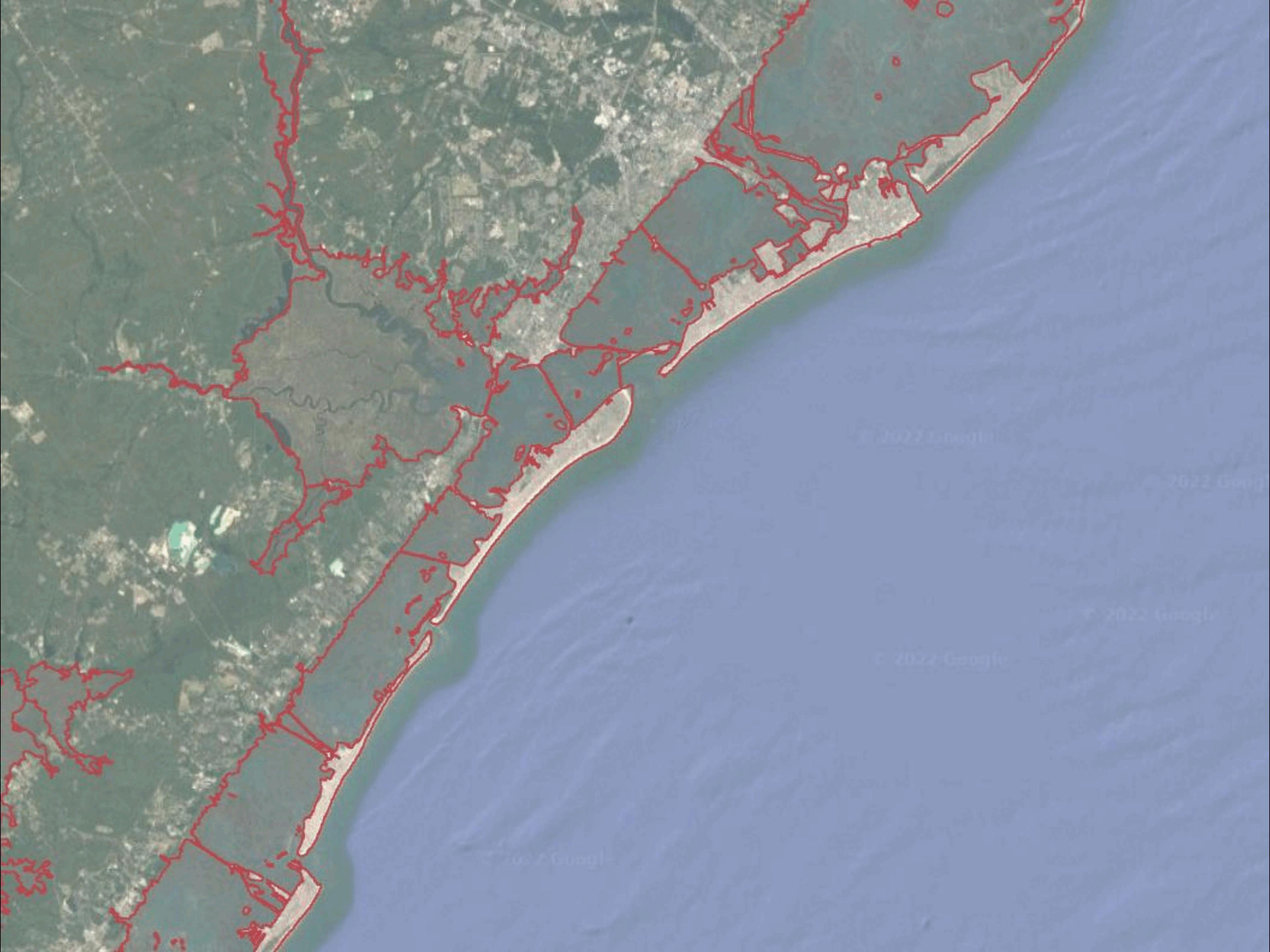


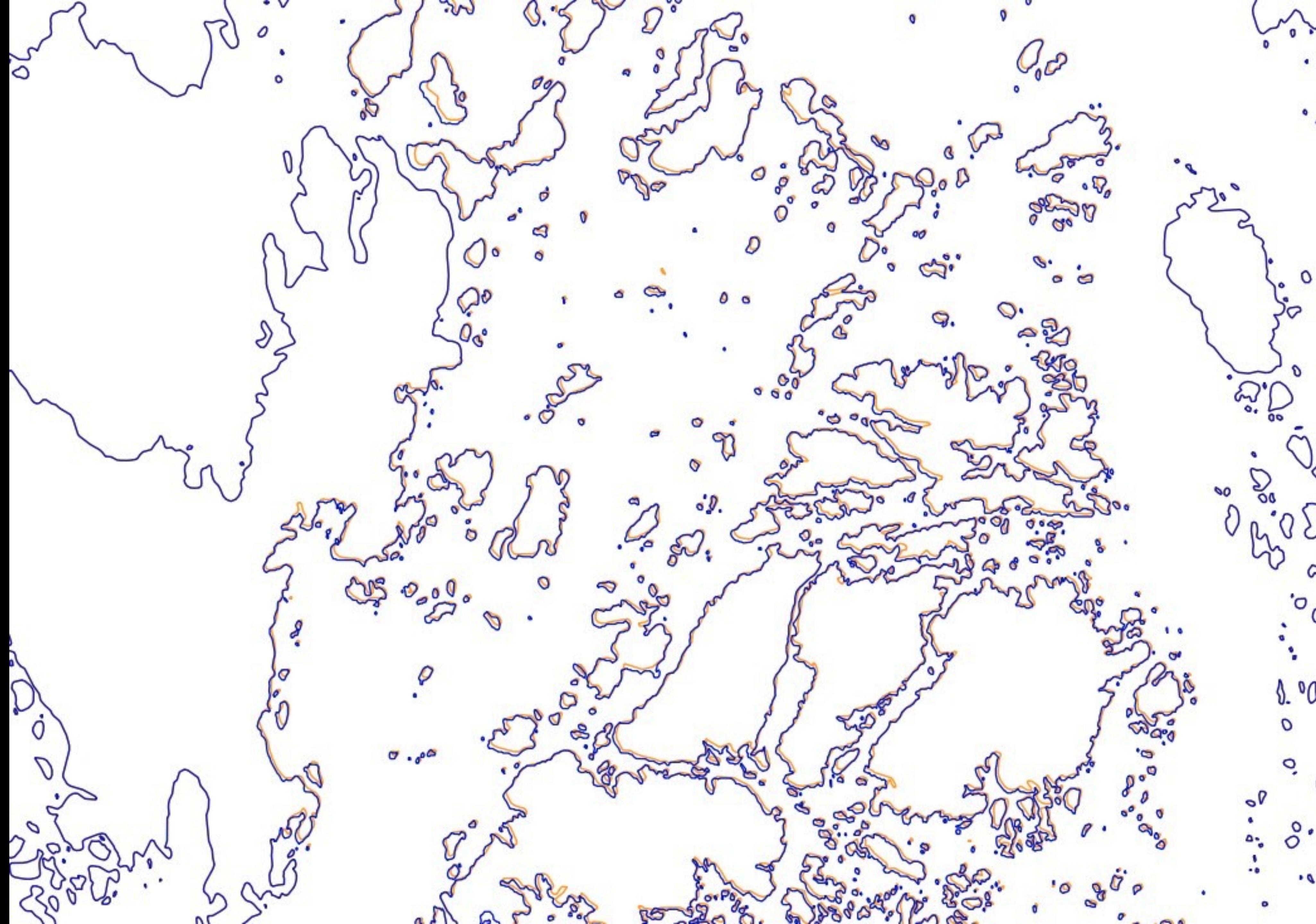
A wide-angle photograph of a coastal landscape at sunset. In the foreground, dark blue ocean waves are visible. Several seagulls are silhouetted against the bright sky, some flying low over the water. The middle ground features a range of mountains with snow-capped peaks. The sky is filled with warm, orange and yellow hues from the setting sun, which is partially visible on the right side.

|NAT: COASTLINES

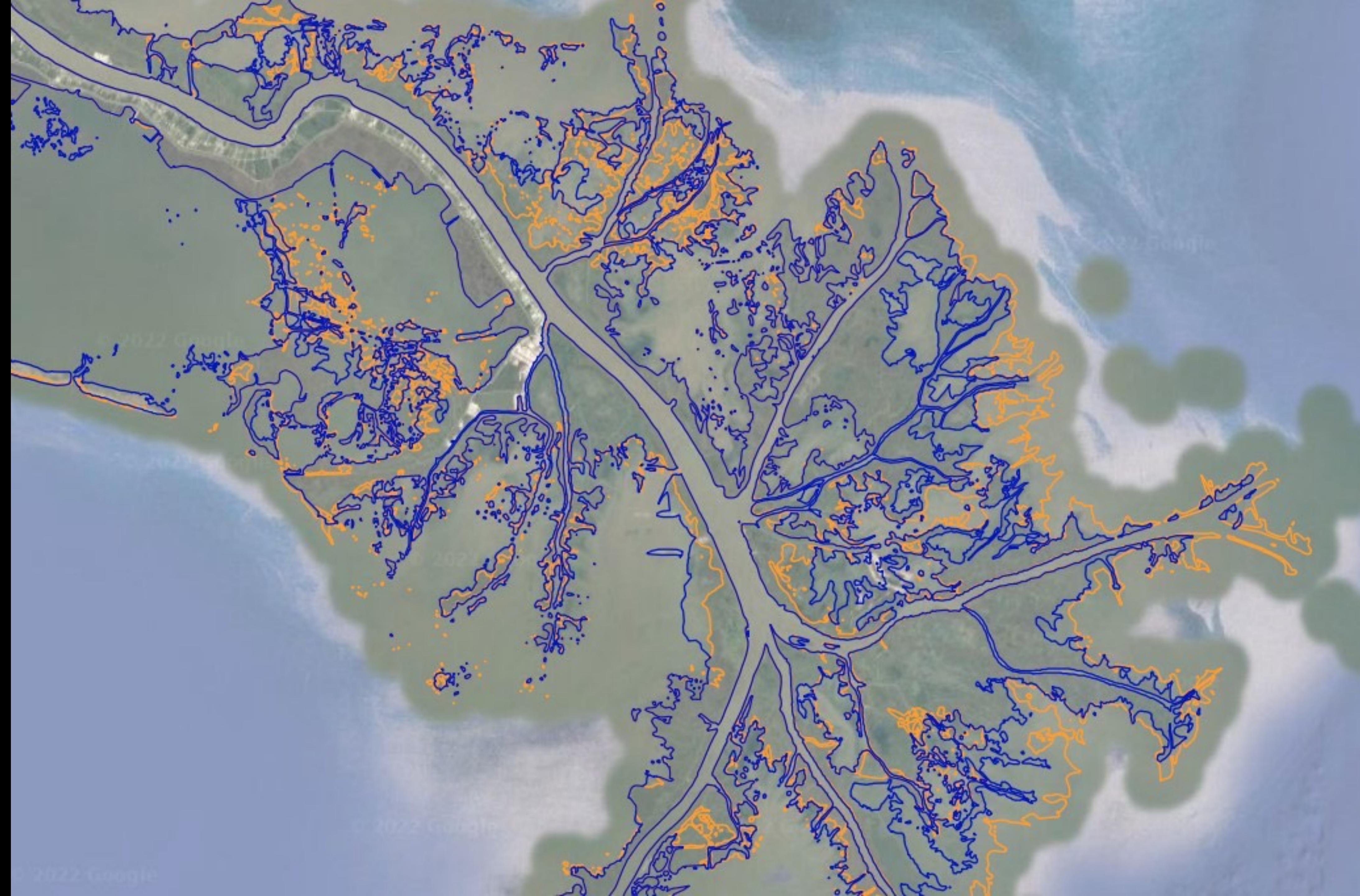






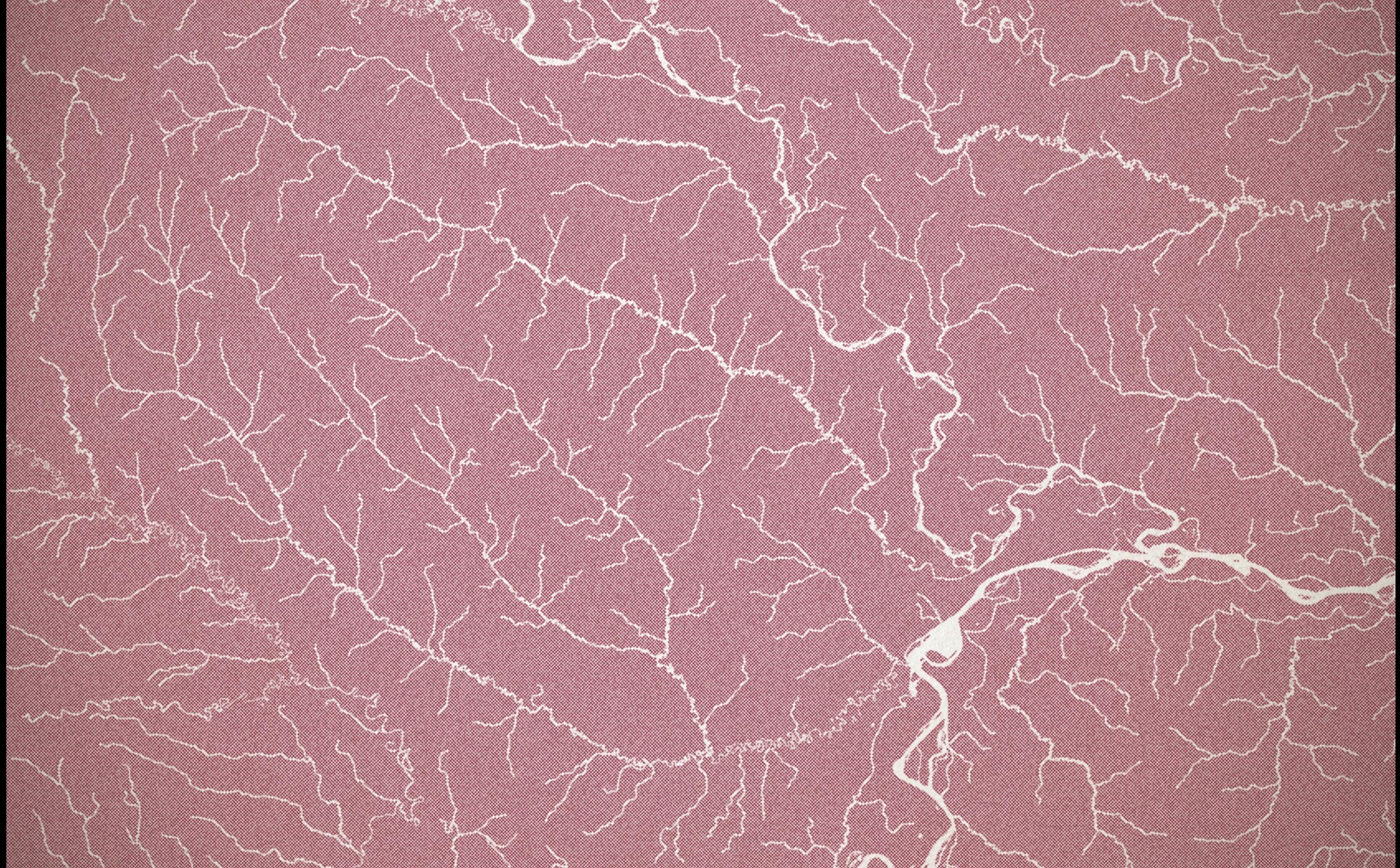


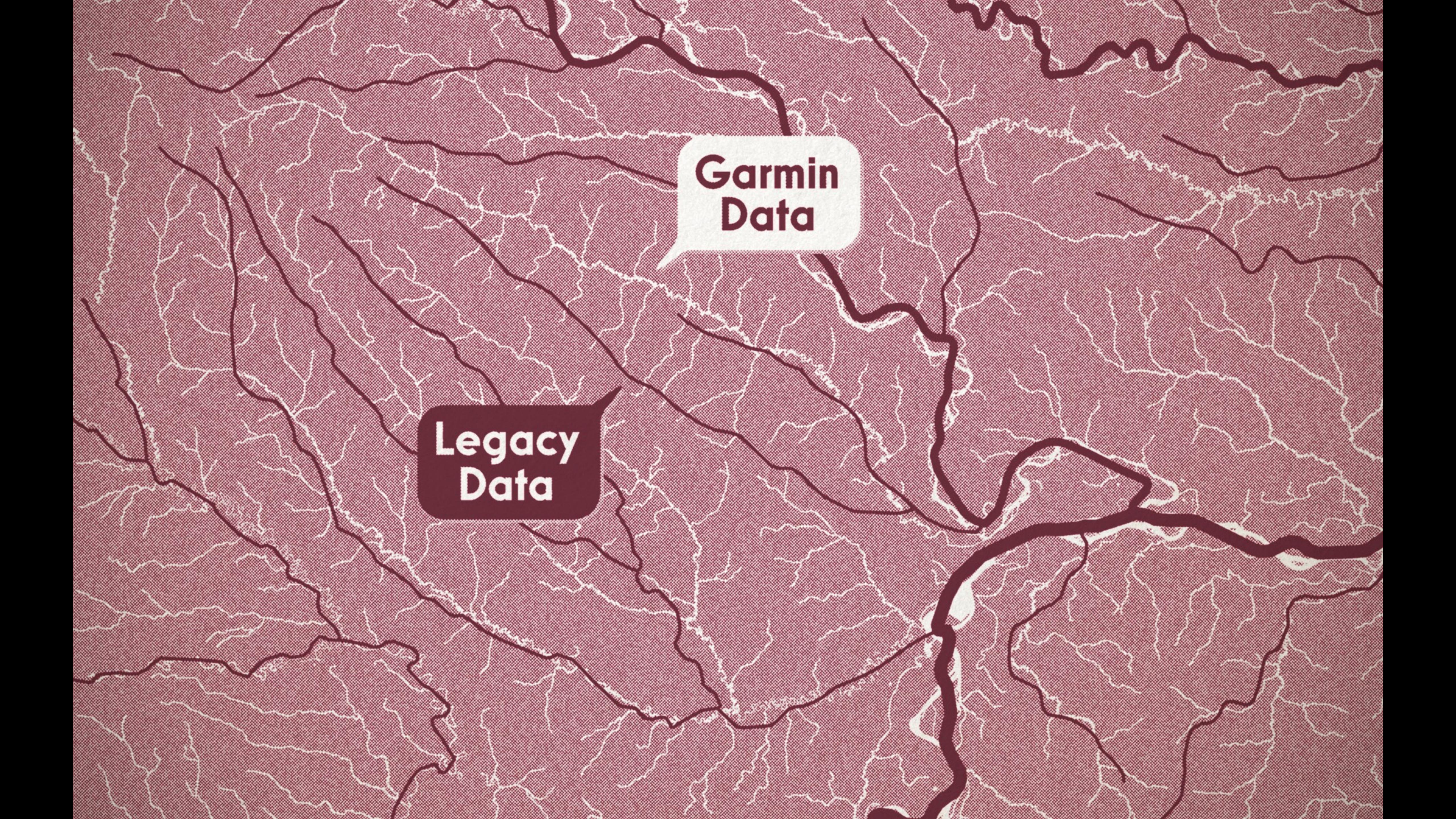




A wide-angle photograph of a dense tropical forest shrouded in thick fog or mist. In the lower-left foreground, a man stands on a narrow, weathered wooden bridge that spans a rocky, misty riverbed. He is wearing a blue t-shirt and dark shorts, and holds a long wooden pole or staff. The surrounding environment is lush with various tropical plants and trees, their details obscured by the heavy mist.

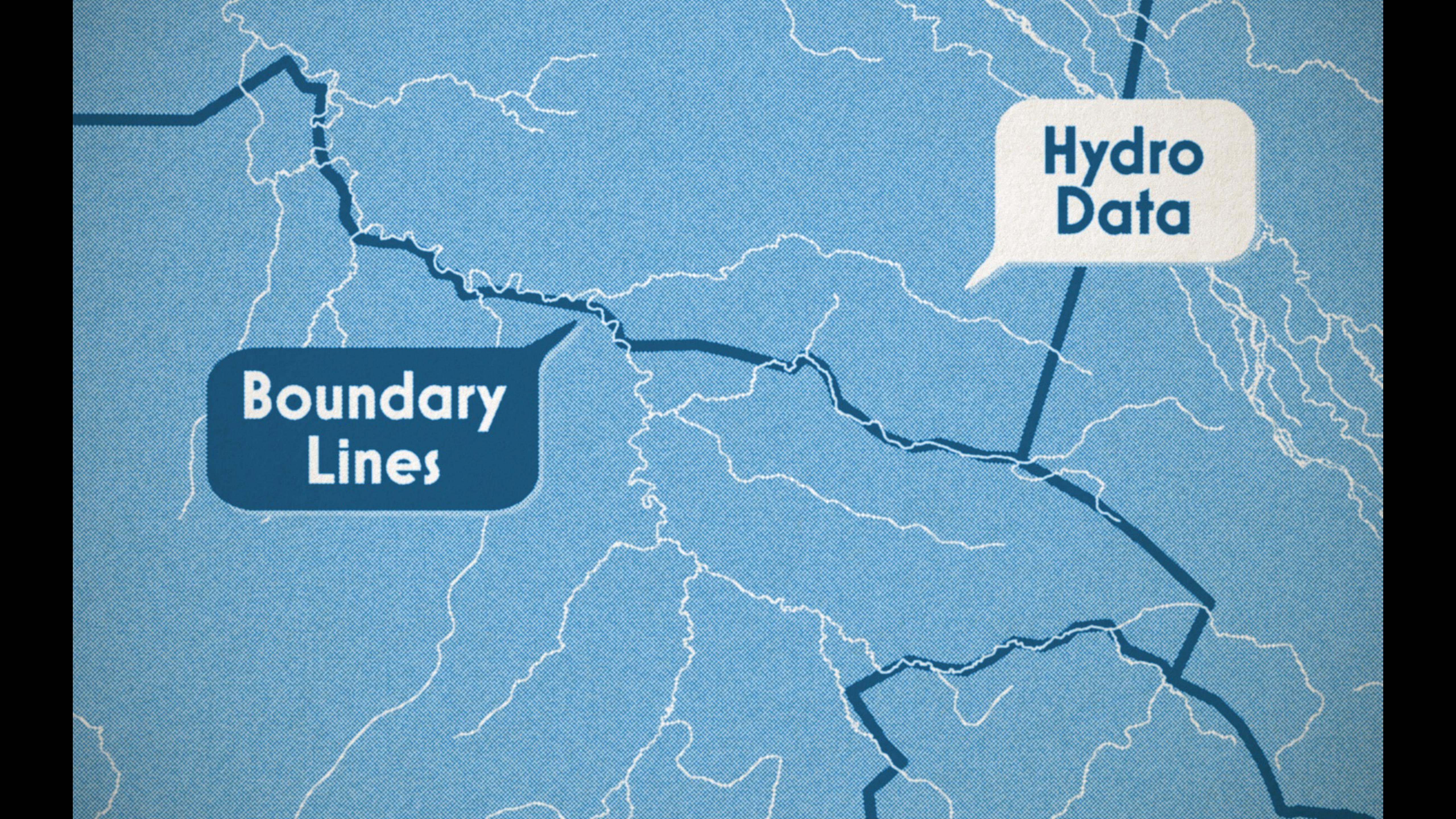
| DANIEL: HARMONIZING DATA





**Garmin
Data**

**Legacy
Data**



**Hydro
Data**

**Boundary
Lines**

**Hydro
Data**

**Boundary
Lines**

The background of the slide features a close-up, high-angle shot of a massive school of fish, likely sardines or anchovies, swimming in a dark blue, almost black, ocean. The fish are densely packed, creating a textured, swirling pattern that fills the frame.

| ALEX: SYSTEMS & SHARING

System of Record and Production

Incorporating the needs of a database for NG Map Policy (system of record) and a database for cartography (system of production)

- Critical features (political boundaries, GPUs, etc.) for Map Policy
- Attributes to enable effective mapmaking
- Use cases identified in 1999 for the original NGS CDB and current use case for multi-scale web-based mapping and other digital products
- Goal: a fully integrated mapping and geospatial data platform

Scales, complementarity, sharing

- NGS CDB 2.0

Compilation scale at 1:200,000 (z 11.5)

2nd maintained scale at 1:2,000,000 (z 8)

- Natural Earth

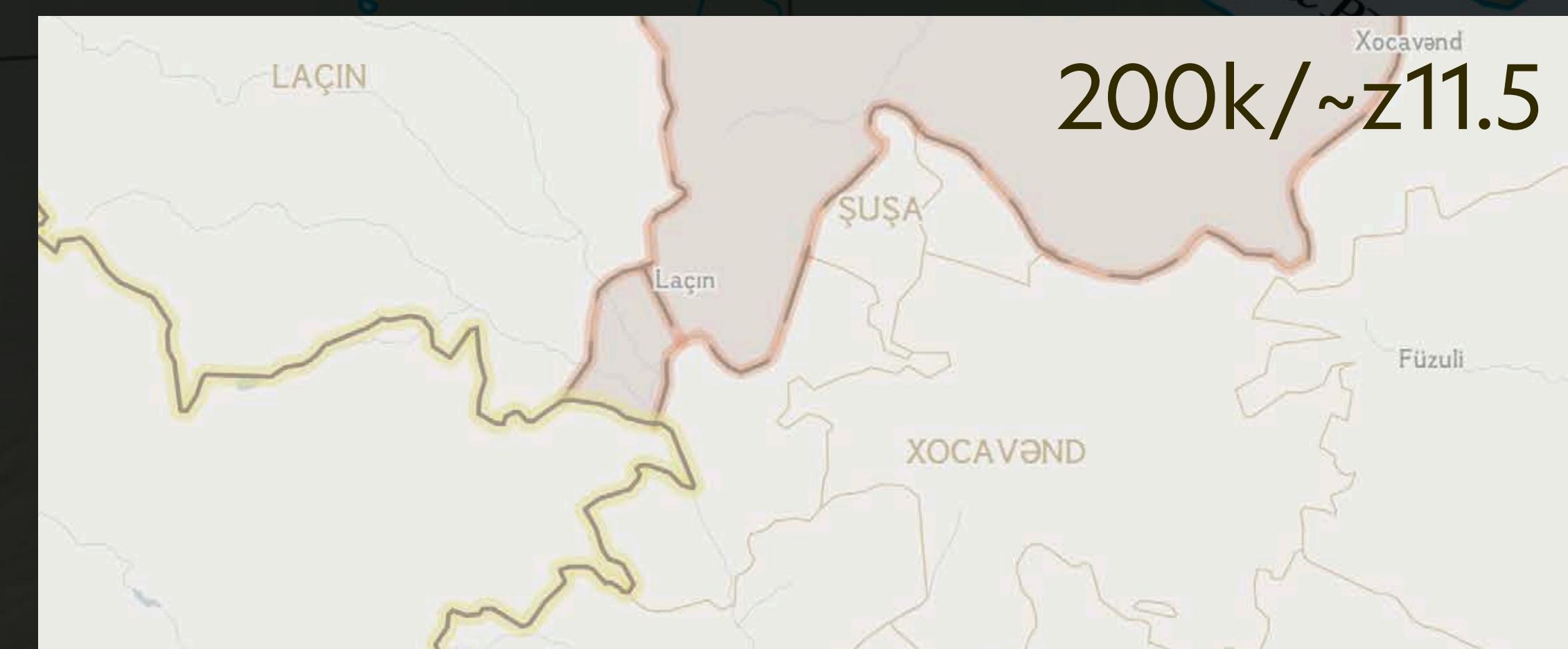
1:10,000,000 (z 6)

1:50,000,000 (z 3.5)

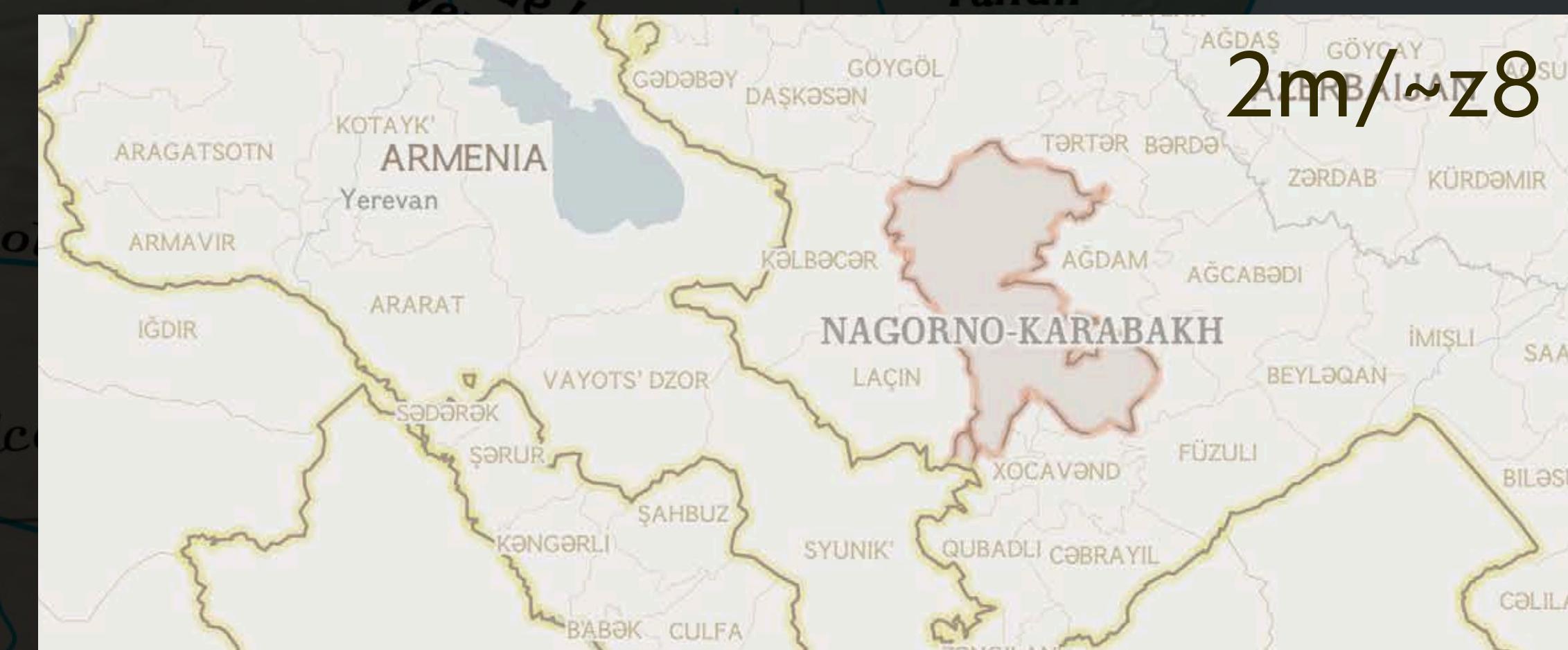
1:110,000,000 (z 2)

- OSM

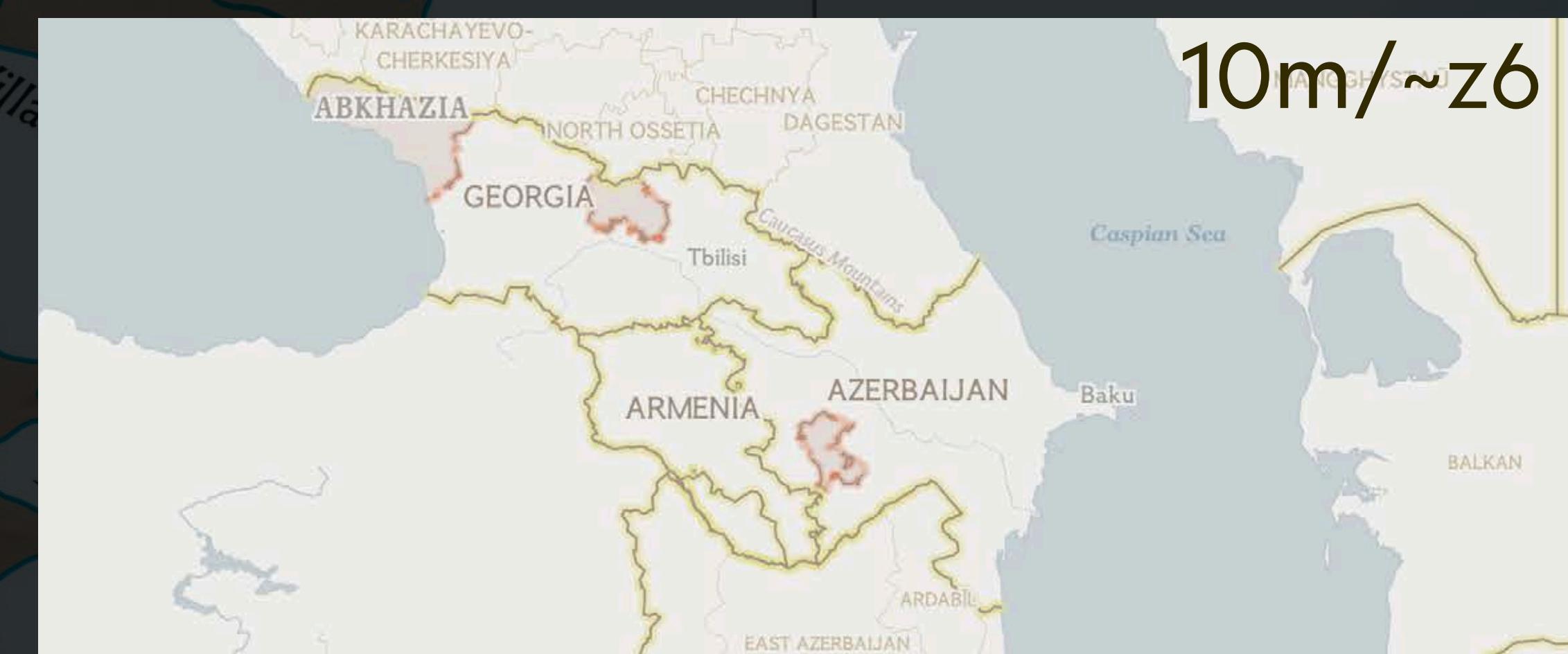
200k/~z11.5



2m/~z8



10m/~z6



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THANK YOU

SLIDES: <https://github.com/amtait/nacis>

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