CASE STUDY



■ Bridges to Prosperity SHARES THROUGH SOURCE

INTRODUCING BRIDGES TO PROSPERITY:

Bridges to Prosperity envisions a world where poverty caused by rural isolation no longer exists. Their mission is to connect rural communities through trail bridges and complementary infrastructure, unlocking access to healthcare, education, markets, and resilience.

CREATING AI-POWERED GLOBAL WATER MAPPING

Bridges to Prosperity's digital technology group aims to scale solutions for consistent, safe, and climate-resilient access. The group focuses on solving data gaps, prioritizing projects for governments and estimating intervention impact. The digital group is passionate about open source to ensure data and insights are accessible.

Rural communities are the world's least mapped areas and their needs are typically poorly promoted or addressed. Bridges to Prosperity is focused on closing data gaps so they can advocate for, and understand rural needs. Foundational to their work was developing an impact model to predict if a community did have access via a bridge how that would benefit the community educationally, health wise and, economically. For instance, if a bridge was built, it would allow for consistent access and reduce travel time to school, which would in turn improve educational outcomes significantly, particularly for girls in that community. Using this impact model, the next step was to then find rivers blocking communities from accessing critical infrastructure. However, when examining bridges that had been built to date, the team found only 60% of the bridges they had built so far were over mapped waterways.

Trying to close this data gap of least-mapped areas, they developed an AI algorithm to predict the locations of waterways, tripling the amount of mapped waterways globally. Now, over 97% of Bridges to Prosperity's bridges are on mapped waterways, including seasonal ones. This new dataset triples the known extent of mapped waterways globally, adding 124 million kilometers to the previously mapped 54 million kilometers. They also built a <u>waterways explorer application</u> which pulls from the data to visualize mapped waterways, including new (yellow) and previously mapped (blue) ones. The application is used to share the work with others that would benefit from more complete waterway data, assess projects, and understand the extent of waterways worldwide.

"We can solve this question for ourselves, but the point of our work is to bring the world's attention to these rural communities and their needs. We want to make sure the data we develop and the insights we generate are accessible to other organizations and people. That's what brought us to Source."

Cameron Kruse, Bridges to Prosperity Director of Digital Technology

BRIDGES TO PROSPERITY SHARES THROUGH SOURCE



BRIDGES TO PROSPERITY SHARES THROUGH SOURCE:

The mapped waterway data is hosted on Source as PM Tiles and the Fika Map application pulls data from Source to visualize mapped waterways. Source was chosen for accessibility and visibility of the data. Source's ease of use and accessibility significantly accelerated the data sharing process, making it a "non-decision" to upload. Cost was not the primary driver, as the organization had access to alternative hosting options. While other publishing repositories could have been used, when compared to Source, the other options would have been more difficult for practitioners to find, access, and utilize. The data shared through Source is already being used beyond their organization for causes related to climate resilience, public health, and agriculture. You can find a prototype of their impact model application here.

SHARING THROUGH SOURCE: KEY BENEFITS AND IMPACT

- Funding: The advocacy map, utilizing Source-hosted PM Tiles, contributed to raising several hundred thousand dollars in grant funding.
- Credibility: The digital group's eminence has grown, and the work has raised awareness for the role of digital technology in ending poverty caused by rural isolation.
- Partnerships: Strong collaborations have developed with groups like Humanitarian OpenStreetMap due to alignment with open source ethos.
- Data Utilization: The data is fundamental for impact models, developing new models for predicting transportation barriers, and is shared with companies building climate-resilient infrastructure and governments.

LOOKING FORWARD

Bridges to Prosperity values Source's ability to accelerate research, discoverability, and data usage. In addition to Bridges to Prosperity's core mission, the data they shared on Source is being used by governments, communities and organizations building climate resilient infrastructure.

BRIDGES TO PROSPERITY DATASETS ON SOURCE

WaterNet Global Waterways

FIND OUT MORE ABOUT BRIDGES TO PROSPERITY

Learn more about Bridges to Prosperity: www.bridgestoprosperity.org

ABOUT SOURCE COOPERATIVE

<u>Source Cooperative</u> is a data publishing utility that allows trusted organizations and individuals to share data using standard HTTP methods.

A core belief behind Source is that it should be much easier for people and organizations to share data on the open web. Commoditized cloud object storage has made it easier than ever to store and share data, but it has not made it easier to discover and access that data. Source is an attempt to change this by making it easy for data providers to publish data in an object storage service and make it available on the open web without needing to run their own server, create a data portal, an API, or a dashboard. Find out more at https://source.coop/