Using ArcGIS Pro To Reach SDG6: Water In Africa, Asia, & Latin America

Keri Kugler
Over 1.8 billion people lack access to safe water

Over 2.4 billion people lack access to sanitation
Water For People exists to promote the development of high-quality drinking water and sanitation services, accessible to all, and sustained by strong communities, businesses and governments.
And there is a global movement that is helping us achieve our mission.
SDG6
“Ensure availability of sustainable management of water and sanitation for all.”
(by 2030…)
In 2016 Water For People committed to using GIS tools to help them achieve SDG 6.

This is the story of the first steps in that journey.
Choosing Software: ArcGIS Pro and Customizing Hardware
Enlisting the help of GIS experts

Rob Page
Aquarian Water Company

Jeff Friesen
CH2M
Training Local Staff From: Guatemala, Honduras, Nicaragua, Bolivia, Peru, Malawi, Rwanda, Uganda and India
In Peru
And In Malawi
We created an online GIS community.
Now Local Staff Are Starting To Make Maps To Help In Their Work

Bringing sustainable and safe water and sanitation systems to millions around the world
Visualizing Pockets of Salinity In Groundwater in Malawi
Evaluating Watersheds in Peru

Water For People
Asunción, Peru

Delineated Watersheds

Mapping the drainage lines allows for a better visual understanding of the watersheds and how the sources are fed. Using the flow direction raster and a determined stream width, ArcMap can delineate the drainage paths taken by the water. Each individual source has its own micro watershed that was delineated. Certain points were in areas that were unable to have their watershed delineated. If a point source is not located on a stream or in an area that ArcMap recognizes as an area that receives flow it will produce a watershed that is not representative of the source. An example of this can be seen below. To fix this problem, the point is snapped to a stream or drainage line if it is deemed to be close to the original point.
Mapping Households Without Access To Reliable Water Systems in Uganda
What’s next?

- Ongoing Training
- Mapping Sanitation Markets
- Spatial Analytics
- More Story Maps
- Continue to lead the WASH sector and promote systems change to move faster towards SDG6
Thank you!

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