NATIONAL GEOGRAPHIC

FREQUENTLY ASKED QUESTIONS

Q: What is the World Freshwater Initiative?
The World Freshwater Initiative (WFI) is a five-year program of the National Geographic Society that aims to better understand the world's freshwater supply, and inspire action to protect it.

The two major components of the WFI are:

- The World Water Map — a one-of-a-kind geovisualization of the world's freshwater supplies and demands, informed by decades of data.
- Grants in freshwater science, conservation, education, and storytelling, which will be informed by data and insights from the Map.

Q: What is the World Water Map?
The World Water Map was developed by National Geographic Explorer Marc Bierkens and Utrecht University associate professor Niko Wanders, using Esri's cutting-edge GIS technology.

The World Water Map provides an accounting of every drop of water in the world. It tells us how much water is available in a given area, where demand is outpacing available supply, and what's driving that demand — whether it's household use, agriculture, or industry.

The Map is capable of portraying the global scale of the freshwater crisis and providing an accurate picture of water gaps at the community level, down to an area of 100 square kilometers. Users can look up an address or watershed anywhere in the world to explore these trends.

Q: How can I look up my address or local watershed?
To look up your address or local watershed, visit worldwatermap.natgeo.org, hover over the white arrow, and click "Explore the Map"; or, scroll to the bottom of the page.

Q: Who uses the World Water Map?
The World Water Map is a resource for anyone who is interested in exploring, understanding, and protecting our world's lakes, rivers, and freshwater resources. For example, it is used by academic researchers; policymakers who want to make informed conservation decisions; journalists who want to tell data-driven stories; and community members who want to have a more sustainable relationship with water.

Q: What is the "water gap"?
The water gap refers to an area where human demand for freshwater exceeds the renewable supply. The World Water Map identifies 22 "hotspots" facing a significant water gap. This can be driven by agricultural, industrial, or household demand for water.

Q: What is the role of "hotspots" on the World Water Map?
Based on 40 years of data from hydrological models made by Utrecht University, the Map has helped to identify 22 hotspots around the world where there is crisis-level water scarcity, due to the gap between human water demand and renewable water availability. This gap is exacerbated by several factors including climate change, increased consumption, and economic development, which are straining the demand on water use for agricultural, municipal, industrial, and livestock purposes. Hotspots include the Central Valley in California; Java,

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Indonesia; the Nile River Delta in Egypt; and the Indus River Basin in Pakistan, to name a few.

Q: What's the significance of being able to look at changes in water demand over the last 40 years?
It is important to consider a long analysis period, in order to separate year-to-year natural climate variability from actual trends. Within climate and hydrological sciences, a period of at least 30 years is often used to give a good representation of the climate. For example, if only a short period is analyzed and the final few years happen to be drought years, one might mistakenly conclude there is a drying trend in the region. Therefore, looking back 40 years gives us a robust assessment of the natural climate variability and trends, and ensures that the trends we observe are robust.

Q: How will the World Water Map feature the work of grantees supported through the Society's World Freshwater Initiative?
True to the National Geographic Society's roots, the World Water Map combines science with powerful storytelling. It will be enhanced with stories from World Freshwater Initiative storytelling grantees, who are documenting freshwater challenges in their communities as well as sustainable solutions. The first cohort of storytelling grantees features 10 projects led by filmmakers, photographers, and journalists around the world focusing on a variety of water issues. This group of 10 will soon be joined by more grantees working in freshwater storytelling, education, science, and conservation.

Q: Can I download the underlying data from the World Water Map?
Yes, the data is available for download.

Q: Is the Map live, or is the data refreshed periodically?
The Map will be periodically updated with new data.

Q: Where is the data sourced from?
Data used in the map is sourced from Utrecht University. To view this data set and more visit https://globalhydrology.nl/

Q: Can I share, reproduce, or adapt data from the World Water map in my work?
Yes. Please be sure to provide the appropriate credits to the National Geographic World Water Map and Freshwater Initiative.

Q: I'm having a technical issue with the World Water Map. What should I do?
Please email Steph Miceli (smiceli@ngs.org). If possible, specify if the issue is a technical bug or a data anomaly.

For more information, please visit natgeo.org/freshwater.