

Urban Water Supply Maps

When we received the [NEERI data](#) we were excited to start analyzing and wrote a few blogposts about the water quality of two cities; [Chennai](#) and [Jaipur](#). Yes the data was old and was not useful in the sense of actually telling people what their water supply status is.

However, it was the first time we had seen such an extensive dataset on urban water, reservoir to consumer, summer, monsoon, and winter. We thought that even though the data itself might be old this is an opportunity to build a visual that can be informative and flexible enough to put more updated water quality information on it when we get it.

For this exercise we thought it was important to put water quality information in the context of how the water flows through the city. Since we decided to create an urban water system map and overlay the water quality data on top of it.

"This made it necessary to create a good reference map over which the data for water quality could be traced. Excessive details such as the road network of the city, or landmarks such as parks and important buildings that help orient the reader, needed to be weeded out as they make it harder for the water infrastructure to be mapped with desired clarity. However, since the data was closely-linked with different locations around the city, it was necessary for the visualisation to some retain geographical relevance." Tejas Pande the designer who started looking at the data.

The maps produced consisted of various water bodies that make up the water supply infrastructure of the city - reservoirs, lakes, treatment plants, tanks, and so on. Each body was connected to the successive one in the supply chain by a line. This line represented the quality of water flowing from the former body to the latter, using a coloured key. The darker the colour, the higher the contamination. Arrows in white, running along the lines, helped trace the flow of the water. If a line was found grey in colour, data for that section was not available. The source of water, which was predominantly surface or ground, was denoted alongside the name of every reservoir. Also, under the name of the reservoir, its capacity (volume) and its distance from the centre of the city was labelled.

You can see this in our Chennai maps. Since Chennai had the most complete and organized data we could really build a map that was fairly extensive.

Chennai maps

The maps were designed to be very simple so that they may invite the reader to have a conversation about the data and its revelations, be it the state of the water one consumes or the data that evaluates it. For instance, the glaring lack of data became increasingly apparent once the mapping began. Putting together such a map was riddled with problems of availability and accuracy of data.

While we went through the different cities the quality of data and availability of information was consistently inconsistent. There were maps available, but we couldn't

always decipher how the system was connecting to each other. There were many different versions of how these systems looked. It became a struggle to find basic components of some of the cities. We attempted New Delhi and found it to be too difficult.

We hope to share these maps and have people help us complete them. We are creating base maps for cities and hopefully with participation from organizations and citizens in these cities can add components and get more sources.

See the city maps and get the methodology and how we did it by clicking on the city below

City maps