

University of Massachusetts, Dartmouth

**“Visualization for Improved
Water Source
Access”**

Project for
Data Visualization (DSC 530/ CIS 602-01)

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About Data Set

Improve water source (% of population with access)

‘The improve water resource refers to the percentage of population using improved drinking water source.’

The data set is survey data conducted by WHO/ UNICEF Joint Monitoring Program (JMP) for Water Supply and Sanitation (<http://www.wssinfo.org/>).

It is tabular data set. Which have rows as countries name and the have country name, country code, indicator name and years from 1990 to 2015. Data is in percentage format for each country.

URL of the dataset:

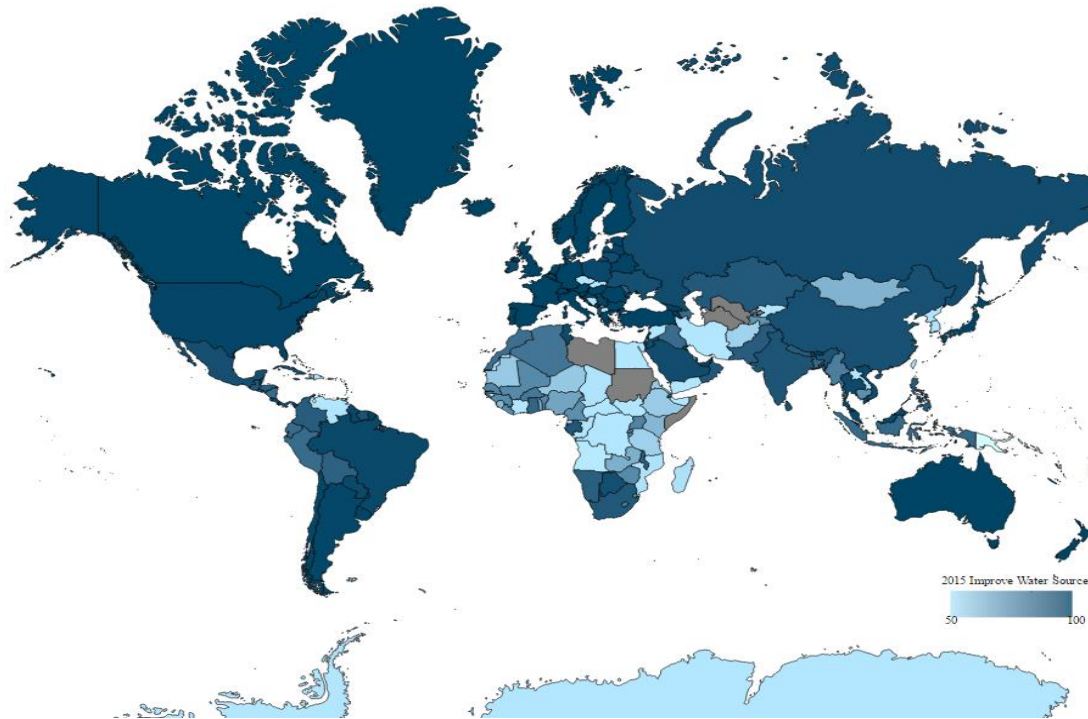
<http://data.worldbank.org/indicator/SH.H2O.SAFE.ZS/countries/AM?display=default>

Question Answered

- 1) Which continent have highest level of improved percentage of water level?
- 2) Which countries have shown more improvement in their percentage of water level from 1995 to 2015?
- 3) Does countries income level relate to its percentage of water level?
- 4) Average global trend of percentage of improve water level from 1995 to 2015?

Visualization 01

1) Choropleth Map for improve water resource in 2015 and Countries value from 1995 to 2015



Explanation of visualization:

The above choropleth map is for the 2015 world percentage of water resource.

The choropleth is drawn using quantitative attribute as each countries percentages. For scale I used Sequential attribute in such a way that dark blue color represent higher percentage and light color represent lower percentages.

There are some countries have grey color because their data is missing in dataset.

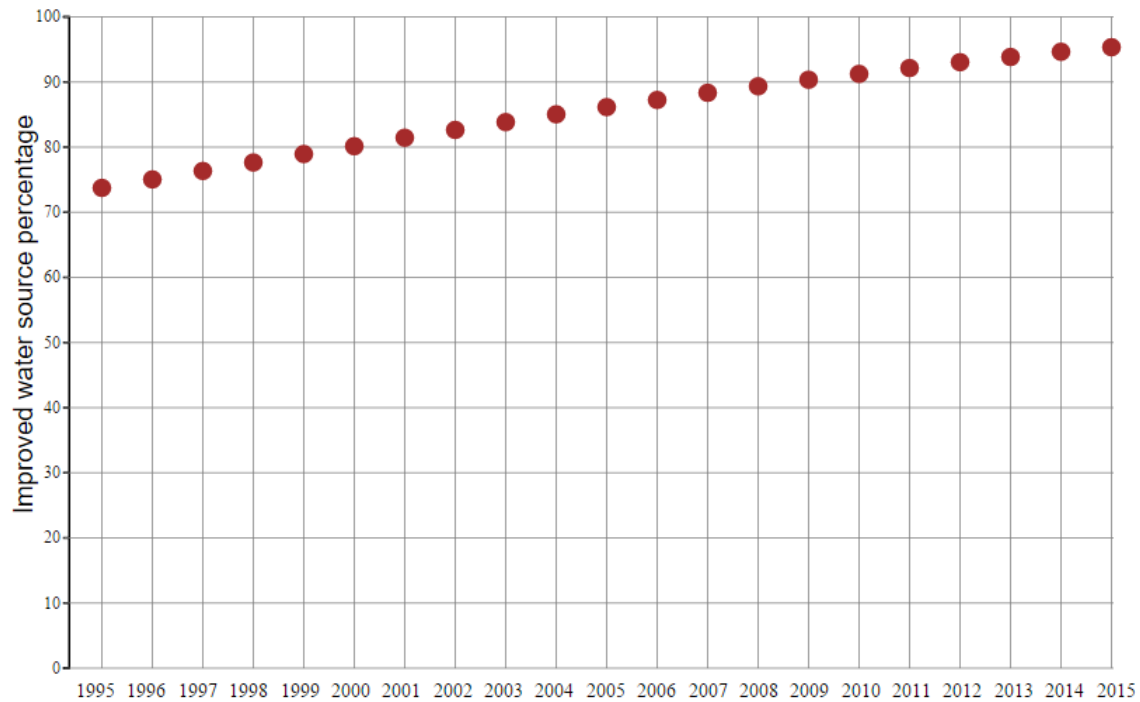
The above visualization help us to compare percentage of improve water source on continental level.

We can clearly see the North America have higher percentage of improve water source as compared to Africa or Asia.

Marks: Lines, Area,

Channels: Area , Color

Visualization 01



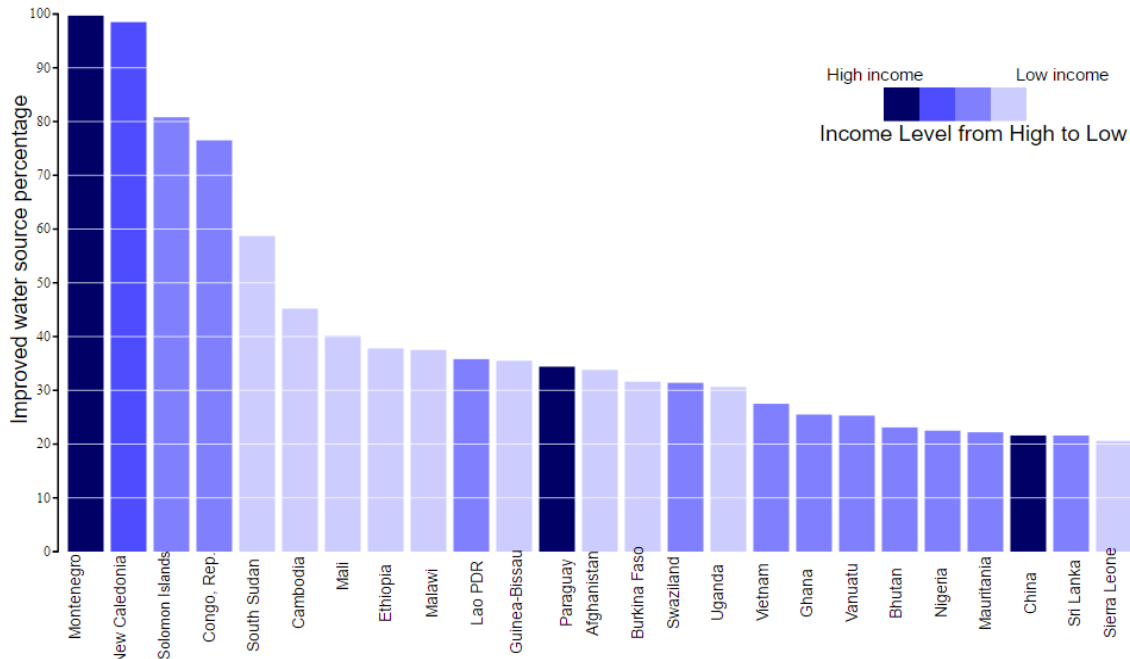
By clicking on any country in above choropleth will show their respective percentage from 1995 to 2015 in above visualization in terms of circles.

Marks: Line, Circle

Channels: color, shape, size

Visualization 02

2) Bar chart for top 25 countries for percentage of water resource



Explanation:

Above bar chart is the top 25 countries based on their change in the percentage of water resource from 1995 to 2015.

We can clearly see that there are lower income countries and medium lower income countries than higher income or medium higher income countries.

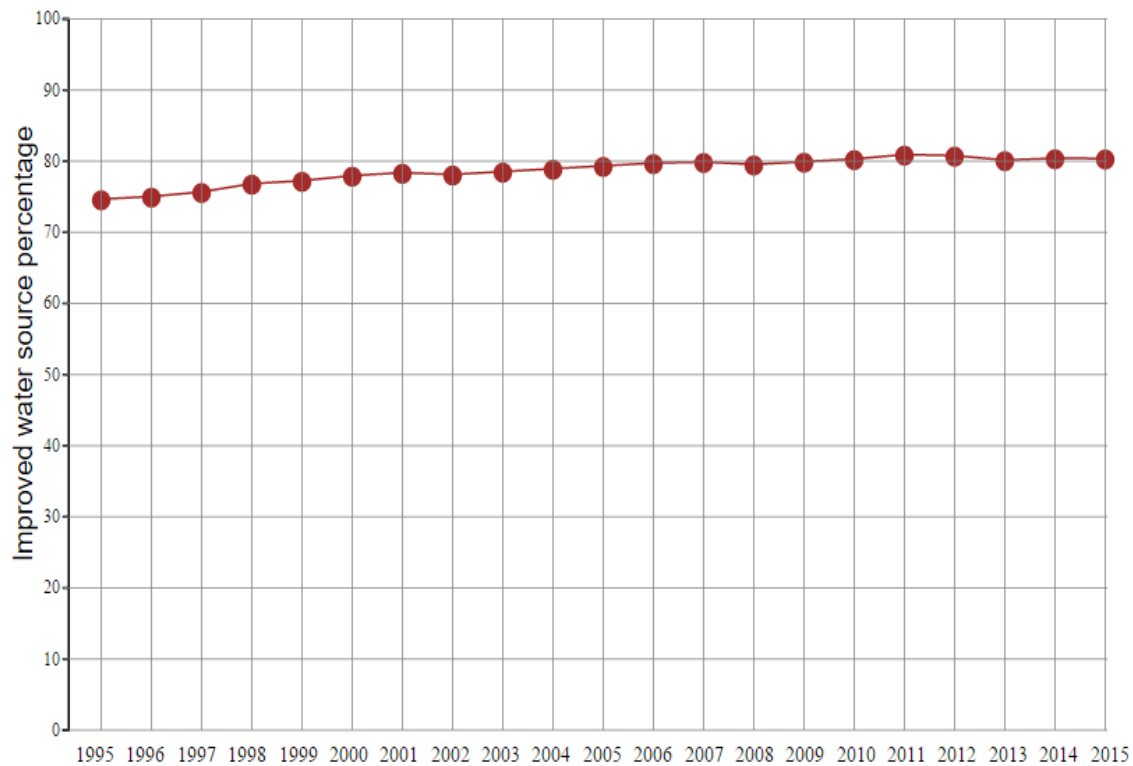
Hence we can say that countries wealth does not depend on percentage of improve water level.

Marks: lines,

Channels: color

Visualization 03

3) Line graph for global average water resource.



Explanation:

The above visualization is global average percentage of water source from 1995 to 2015

We can see that there is increase in global average percentage from 1995 to 1998 and there is straight line from 2013 to 2015

Marks: line, Circle

Channel: color,