



The Current State of Global Water Resources

Mark Barna

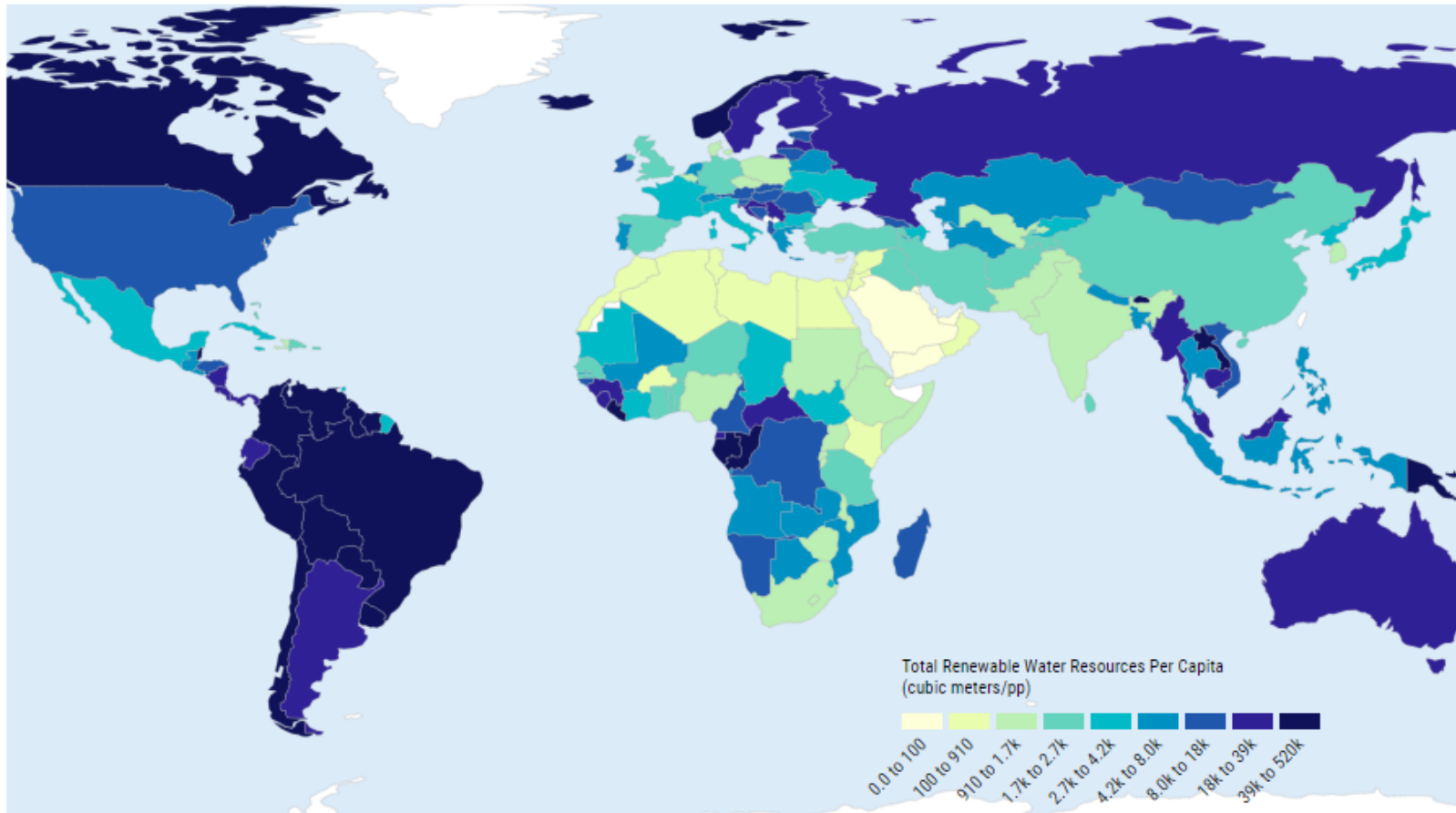
water

[Next](#)

This document contains screenshots and descriptions of the visualizations created with this project. The web pages include interactive content written in Javascript that is not shown here. For example, on each page, the user can hover over the content to display a tooltip with additional statistics.

Overview

Total Renewable Water Resources



Data as of 2014

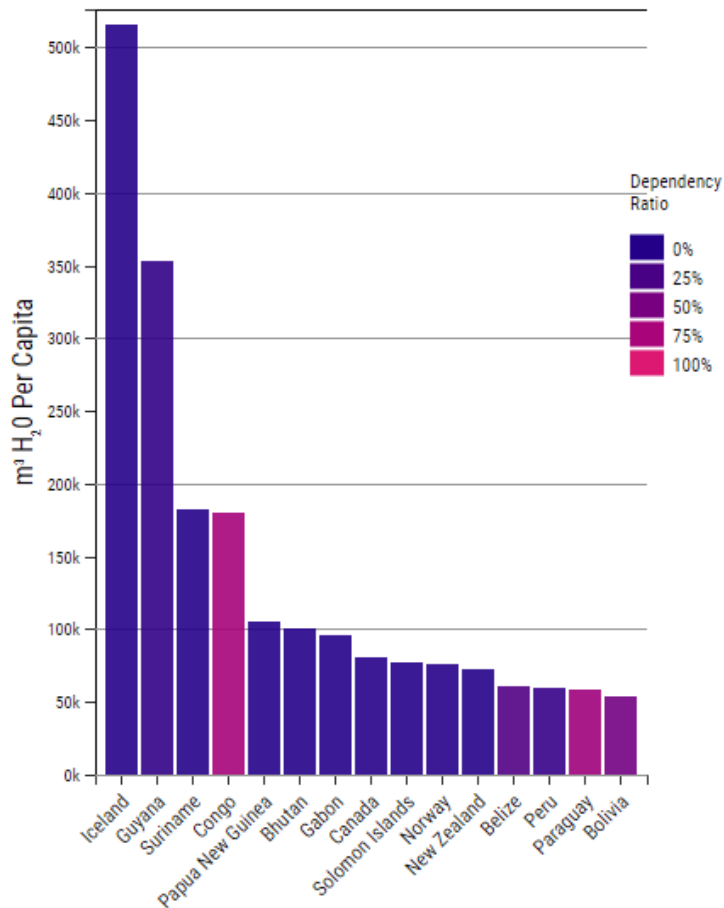
Total Renewable Water Resources (TRWR): The sum of internal renewable water resources (IRWR) and external renewable water resources (ERWR). It corresponds to the maximum theoretical yearly amount of water available for a country at a given moment.

(Source: [Aquastat](#))

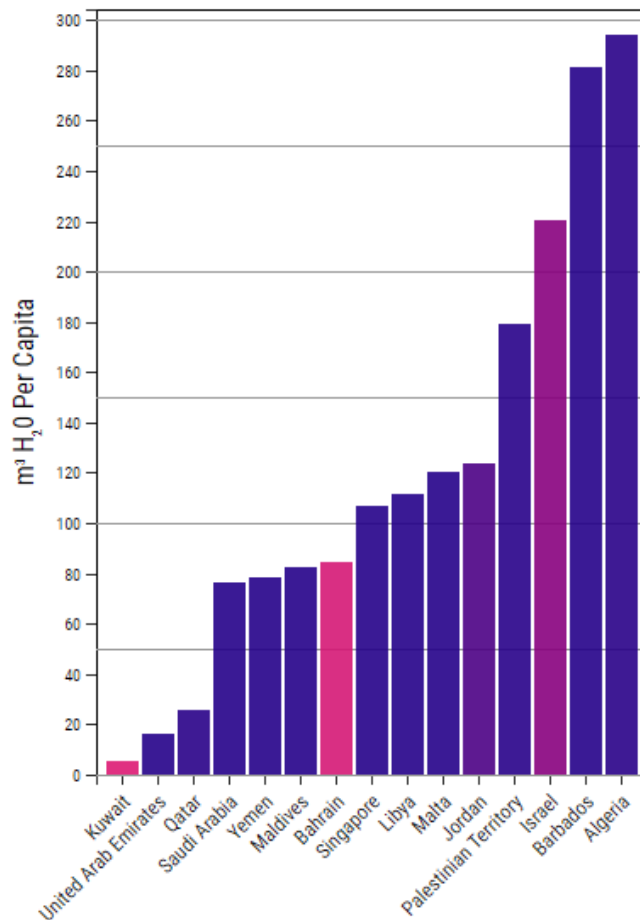
This is a choropleth map showing the total renewable water resources (TRWR) per capita.

Total Renewable Water Resources

Top Countries



Bottom Countries



Data as of 2014

Total Renewable Water Resources (TRWR): The sum of internal renewable water resources (IRWR) and external renewable water resources (ERWR). It corresponds to the maximum theoretical yearly amount of water available for a country at a given moment.

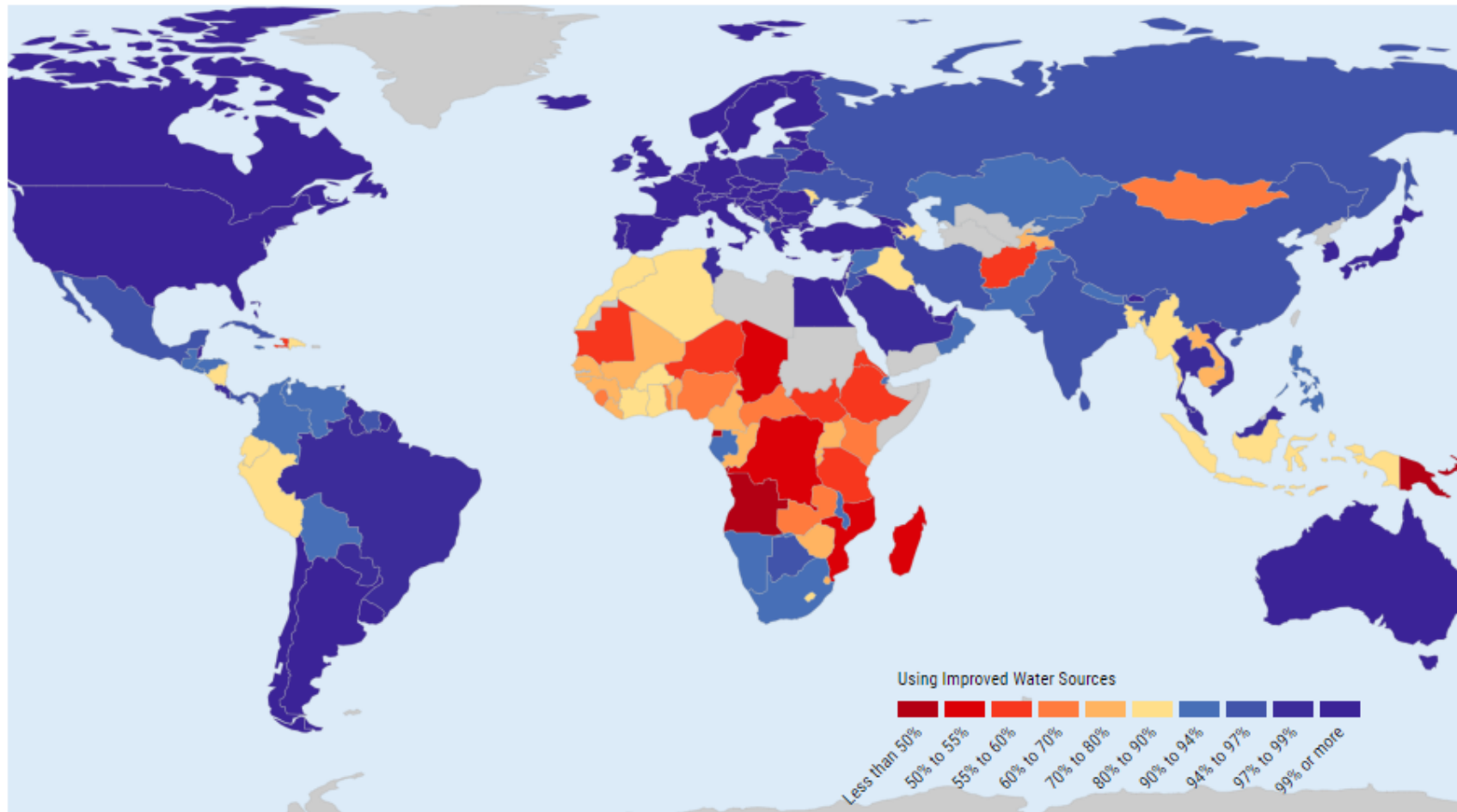
Dependency Ratio: Indicator expressing the percent of total renewable water resources originating outside the country. This indicator may theoretically vary between 0% and 100%. A country with a dependency ratio equal to 0% does not receive any water from neighboring countries. A country with a dependency ratio equal to 100% receives all its renewable water from upstream countries, without producing any of its own. This indicator does not consider the possible allocation of water to downstream countries.

(Source: [AquaStat](#))

These bar charts show the total renewable water resources (TRWR) per capita for the top and bottom fifteen countries, colored by dependency ratio.

Overview

Access to Improved Water Sources

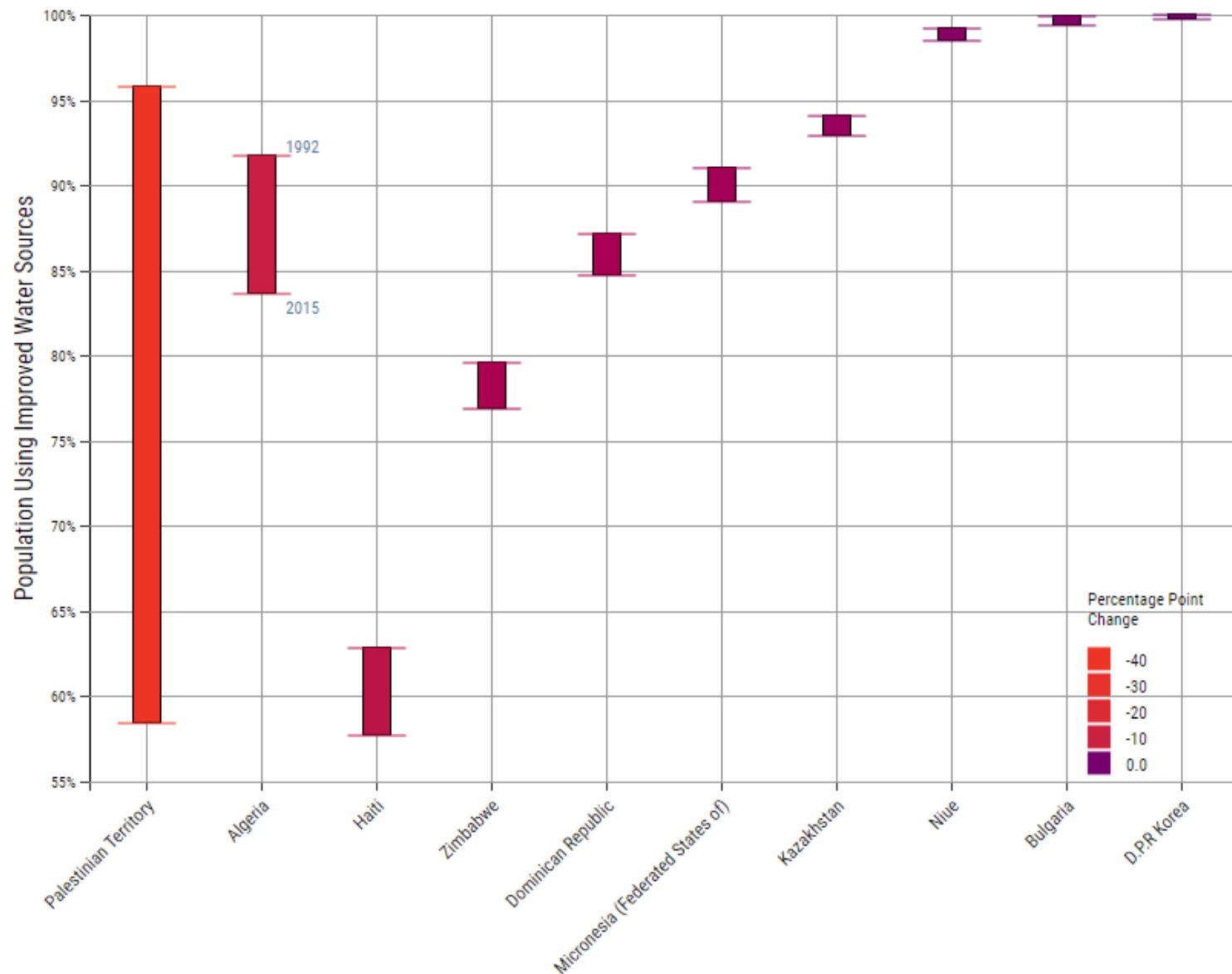


Data as of 2015

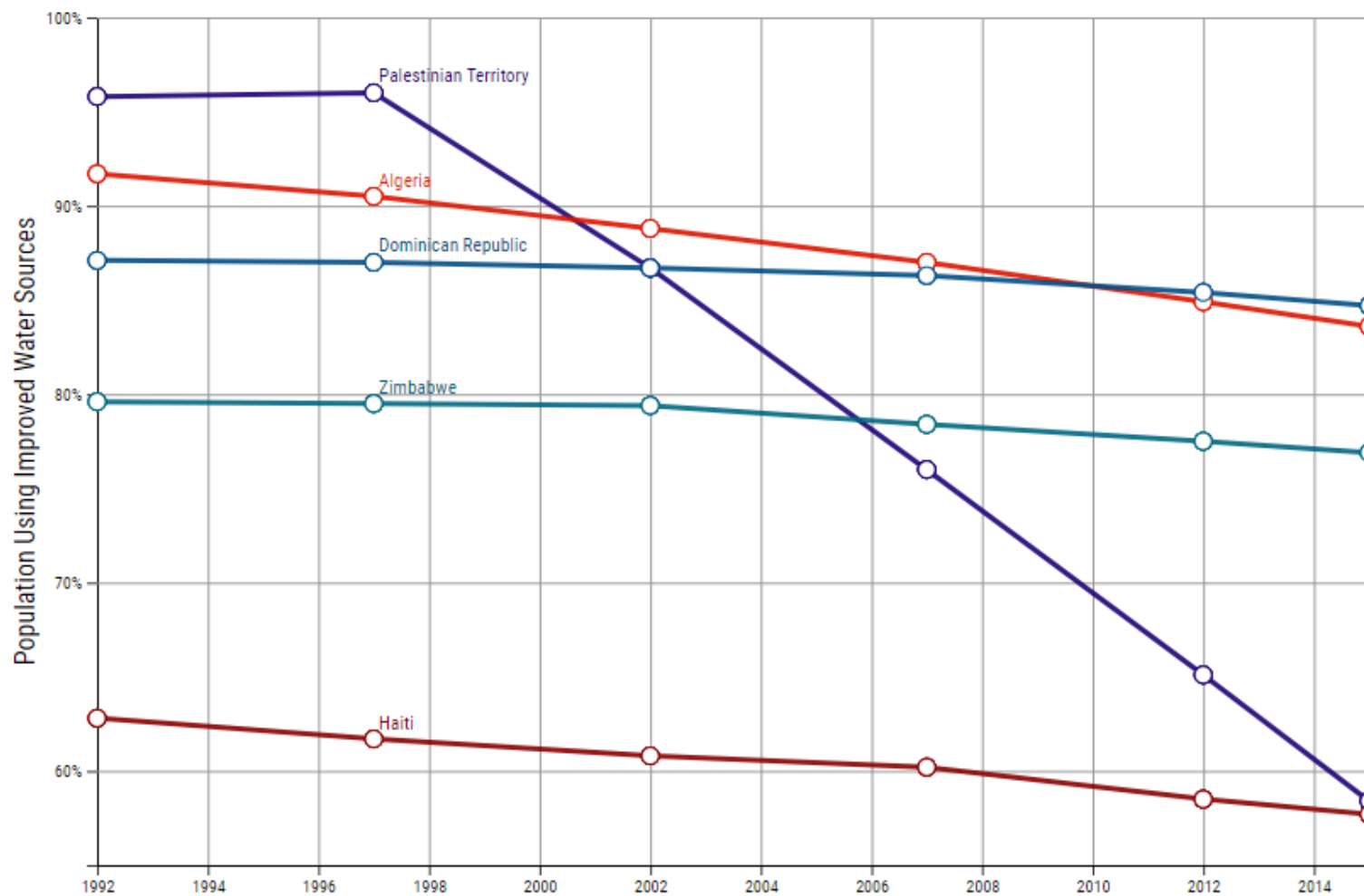
Percentage of the total population using improved water sources. An "improved" source is one that is likely to provide "safe" water, such as a household connection, a borehole, etc. Current information does not allow yet to establish a relationship between access to safe water and access to improved sources, but WHO and UNICEF are examining this relationship.

This is a choropleth map showing the percentage of total population with access to improved water sources.

Largest Decline in Access to Improved Water Sources 1992 - 2015



This chart shows the top ten countries where the percentage of population's access to improved water sources declined the most from 1992 to 2015. The top end of the bars shows the value in 1992; the bottom end shows the value in 2015. This and the next visualization display on the same webpage so refer to the next page for definitions.



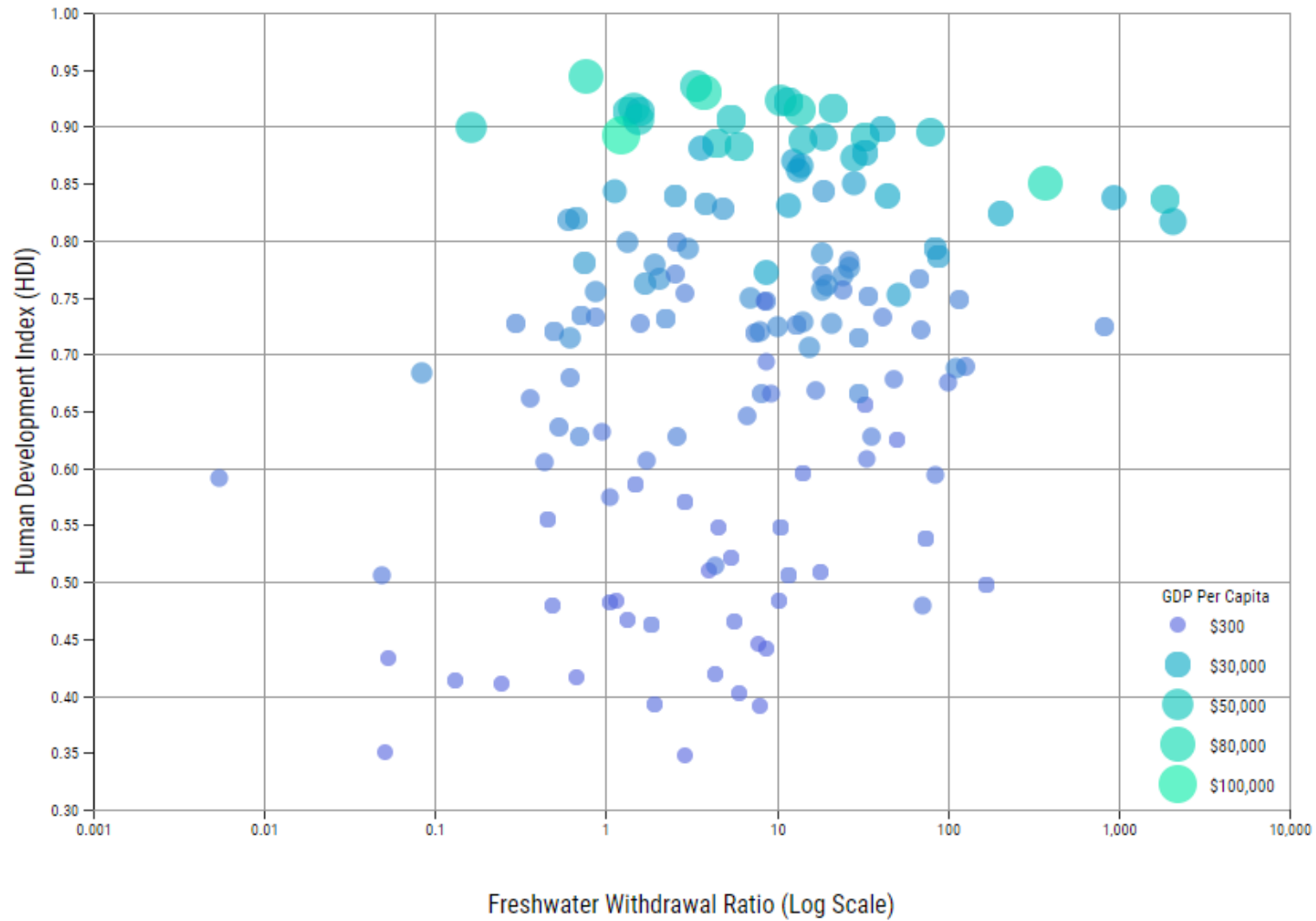
Data as of 2015

Percentage of the total population using improved water sources. An "improved" source is one that is likely to provide "safe" water, such as a household connection, a borehole, etc. Current information does not allow yet to establish a relationship between access to safe water and access to improved sources, but WHO and UNICEF are examining this relationship.

This chart shows the top five countries where the percentage of population's access to improved water sources declined the most from 1992 to 2015. This shows the change over time. Each dot indicates a data sample point.

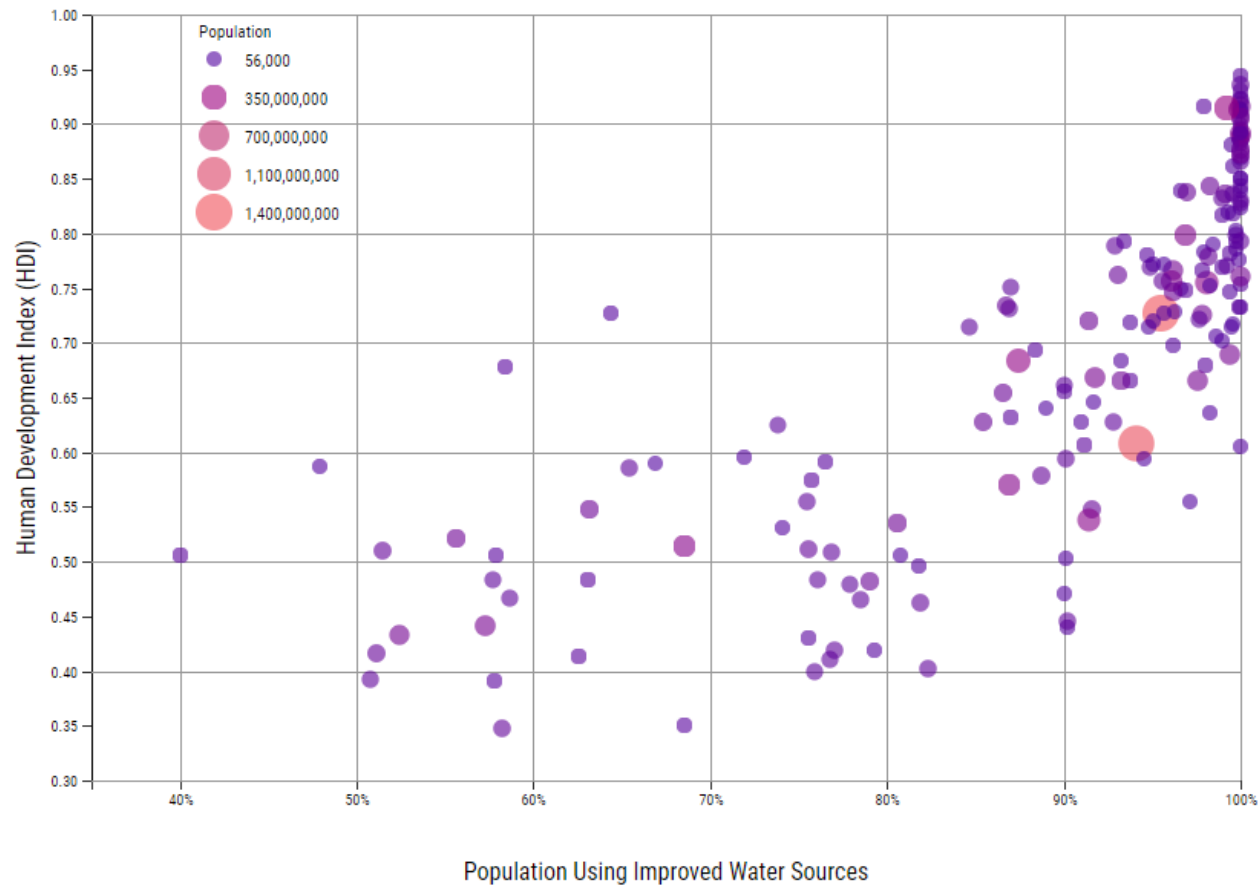
Water's Relationship to HDI

Comparison with Water Resource Stress



This chart is a scatterplot comparing HDI with the freshwater withdrawal ratio. Each dot represents a country. The size and color of the dots show the GDP per capita. This and the next visualization display on the same webpage so refer to the next page for definitions.

Comparison with Access to Improved Water Sources



HDI data as of 2014. Water Stress and data as of 2012. Water Access data as of 2015

Total freshwater withdrawn in a given year, expressed in percentage of the total renewable water resources (TRWR). This parameter is an indication of the pressure on the renewable water resources. It is the Millennium Development Goal (MDG) Indicator 7.5 and the Sustainable Development Goal (SDG) indicator 6.4.2.

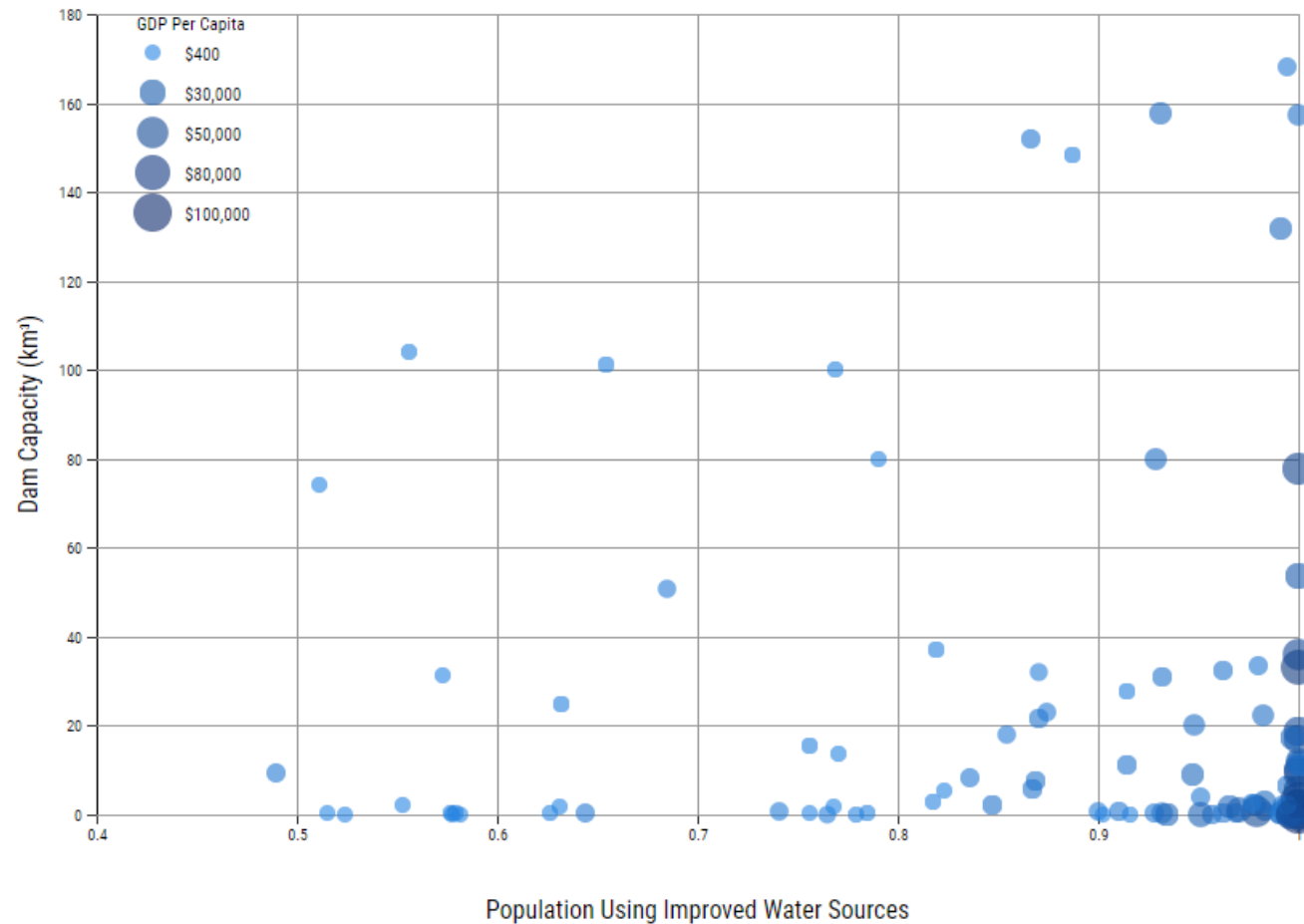
Percentage of the total population using improved water sources. An "improved" source is one that is likely to provide "safe" water, such as a household connection, a borehole, etc. Current information does not allow yet to establish a relationship between access to safe water and access to improved sources, but WHO and UNICEF are examining this relationship.

Human Development Index (HDI): This is a summary measure of human development. It measures the average achievements in a country in three basic dimensions of human development: (1) a long and healthy life, as measured by life expectancy at birth; (2) knowledge, as measured by the adult literacy rate (with two-thirds weight) and the combined primary, secondary and tertiary gross enrollment ratio (with one-third weight); (3) a decent standard of living, as measured by GDP per capita (Purchasing Power Parity or PPP US\$). (Measure is from 0 to 1).

This chart is a scatterplot comparing HDI with the percent of population using improved water sources. Each dot represents a country. The size and color of the dots show the country's population.

Dam Capacity

Comparison with Access to Improved Water Sources



Data as of 2015

Percentage of the total population using improved water sources. An "improved" source is one that is likely to provide "safe" water, such as a household connection, a borehole, etc. Current information does not allow yet to establish a relationship between access to safe water and access to improved sources, but WHO and UNICEF are examining this relationship.

Total Dam Capacity: Total cumulative storage capacity of all dams in each country. The value indicates the sum of the theoretical initial capacities of all dams, which does not change with time. The amount of water stored within any dam is likely less than the capacity due to silting. Data on small dams may not be included, although their aggregate storage capacity is generally not significant.

This chart is a scatterplot comparing dam capacity with the percent of population using improved water sources. Each dot represents a country. The size and color of the dots show the GDP per capita.