1. Generation and discharge of wastewater in volume:

* Source: Eurostat
* Data Source Credibility: Eurostat is in partnership with the European Statistical System (ESS) and is considered reliable with a legal obligation for trustworthiness. The main reason being is the partnership with ESS. It ensures the statistics provided for all the EU Member states are reliable. It is done by uniform criteria where they compare statistical data with different EU countries.
* Data Collection Method: Questionnaires are used annually, along with gap filling and corrections for earlier reference years.
* Bias: No bias was found.
* Conclusion: The data from this source is considered reliable.

1. Mortality rate attributed to unsafe water, unsafe sanitation, and lack of hygiene:

* Source: The World Bank, World Health Organisation
* Data Source Credibility: Both The World Bank and the World Health Organisation are reputable sources. The world bank provided the governments of poor countries with loan to aid with capital projects. Many Researchers relay on their data for insights. The article by Jilian Clare Kohler and Andrea Bowra provides insight on how fair the data collection process is by implementing anti-corruption, transparency, and accountability.
* Data Collection Method: Death rates are calculated by dividing total deaths by the total population size, considering impacts like diarrhoeal diseases, intestinal nematode infection, and protein-energy malnutrition.
* Bias: Potential sampling bias as it does not cover impacts like typhoid, polio, etc.
* Conclusion: The data is considered reliable, but there might be some limitations due to the sampling bias.

1. Premature deaths due to UNSAFE WASH:

* Source: OCED.Stat
* Data Source Credibility: OCED.Stat is considered reputable, and data is based on the Global Burden of Diseases (GBD) from articles in 'The Lancet.' As they considered these many aspects of the data as there are less chances of data being biased hence this data can considered reliable
* Data Collection Method: Examining trends from 1990 to the present, considering 204 countries, 369 diseases and injuries, and 87 risk factors.
* Bias: No bias was found.
* Conclusion: The source is reliable.

1. Proportion of bodies of water with good ambient water quality:

* Source: UNWater
* Data Source Credibility: UNWater is a monitoring hub and provides reliable data.
* Data Collection Method: In-situ measurements of water quality parameters, comparing measured values to national target levels. They emphasize on water related issues/ measures such as Water quality, wastewater management, water scarcity and they acknowledge the value of water and make efforts to improve the water value. It is a reputable source when considering the field of water sanitation.
* Bias: No biases were found, but data provided may not be sufficient.
* Conclusion: The data is considered reliable, but there might be limitations due to insufficient data.

1. Wastewater Discharges Per Year Per Country:

* Source: OCED.stat
* Data Source Credibility: OCED.stat is a reputable source, and the data collection method is guided by UN-Habitat, WHO, UNSD, Eurostat, and UN-Water. As mentioned earlier, the world bank provided the governments of poor countries with loan to aid with capital projects. Many Researchers relay on their data for insights. The article by Jilian Clare Kohler and Andrea Bowra provides insight on how fair the data collection process is by implementing anti-corruption, transparency, and accountability.
* Data Collection Method: The UN-Habitat, WHO, UNSD for monitoring methodology. Eurostat for Questionnaire for EU countries. UNSD Questionnaire for OCED countries. UN-Water for Data collection process and timeline. Collaboration among various organizations for collecting wastewater discharge data.
* Bias: No biases were found.
* Conclusion: The data from this source is considered reliable.

1. Annual freshwater withdrawals:

* Source: Our World in Data, The World Bank, WHO/ UNICEF JMP, Food Agriculture Organization of the United Nations
* Data Source Credibility: The sources are credible as they mention clearly the methodologies used and it is done by professionals. The founder of Our World in Data Max Roser is a Programme director of Oxford Martin Programme on Global Development. For data collection they have considered various aspects such as Industry and Agriculture.
* Data Collection Method: Annual freshwater withdrawals encompass total water extraction, excluding evaporation losses from storage basins. The dataset includes water from desalination plants, especially in countries where they are a significant source. Water withdrawals may exceed 100 percent of total renewable resources in cases of substantial extraction from non-renewable aquifers, desalination plants, or significant water reuse. Withdrawals for agriculture and industry cover irrigation, livestock production, and direct industrial use, including cooling for thermoelectric plants. Domestic uses include withdrawals for drinking water, municipal supply, public services, commercial establishments, and homes.
* Bias: No Bias found
* Conclusion: The Data is Reliable.

1. Death rate from Unsafe Water sources

* Source: Our World in Data, IHME, Global Burden of Disease (2019)
* Data Source Credibility: The credibility of the sources is established through transparency regarding the methodologies employed, managed by skilled professionals. IHME has engaged in global collaborations with numerous organizations, including the World Health Organization (WHO), with whom they have established a memorandum of understanding.
* Data Collection Method: To calculate death and DALY rates, sum up the deaths and DALYs for each country in a region of interest. Then, divide these totals by the corresponding regional population. This gives the death and DALY rates for that specific region.
* Bias: No bias found
* Conclusion: The dataset is reliable

1. Water, Sanitation and Hygiene (WASH) Data Explorer:

* Source: Our World in Data, WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation
* Data Source Credibility: WHO and UNICEF, as specialized United Nations agencies, possess extensive expertise in their designated fields. While WHO concentrates on addressing worldwide health concerns. UNICEF's focus lies in safeguarding children's rights, offering aid and advocacy across domains like education, nutrition, and safeguarding against exploitation. Their considerable expertise, coupled with the transparency of their research, amplifies their accountability.
* Data Collection Method: They collect data from national governments through surveys which gather information on Drinking water, sanitation and hygiene. There are various estimation methods used one of them being drawing a best fit line of the data points generated from rural, urban and national estimates for each country.
* Bias: No Bias found
* Conclusion: The dataset is reliable

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