

## Part I - Analysis of improved sanitation facilities

We conducted an analysis to understand how access to sanitation facilities has changed over time, the overall trend, and whether there are any variations based on income groups. We used data from the [World Bank API](#) (code: SH.STA.BASS.ZS) following the guidelines [published](#) in the data help desk website, and then analyzed it using Python focusing on income groups and regions.

Figure 1 shows the trend of the percentage of the population with access to basic sanitation facilities by income group. We observed that there has been a worldwide increase in accessibility from 55% to 77% in the first two decades of this century (top right plot, green line). This trend was consistent across all income groups, although there were noticeable differences between them.

High and upper-middle income countries had accessibility rates above the world trend, whereas lower-middle and low-income countries were below the world trend. High-income countries had almost 100% of their population with access to sanitation facilities during this time period. Upper-middle and lower-middle income countries had a similar slope over the years, but with different starting points (66% and 32%, respectively). Low-income countries had the lowest accessibility rates and showed only a slight increase over the years.

By focusing on income groups, we were able to gain a more comprehensive understanding of the trends in access to sanitation facilities. Our analysis shows that the world has made progress in improving sanitation accessibility, but there are still significant disparities between income groups that need to be addressed.

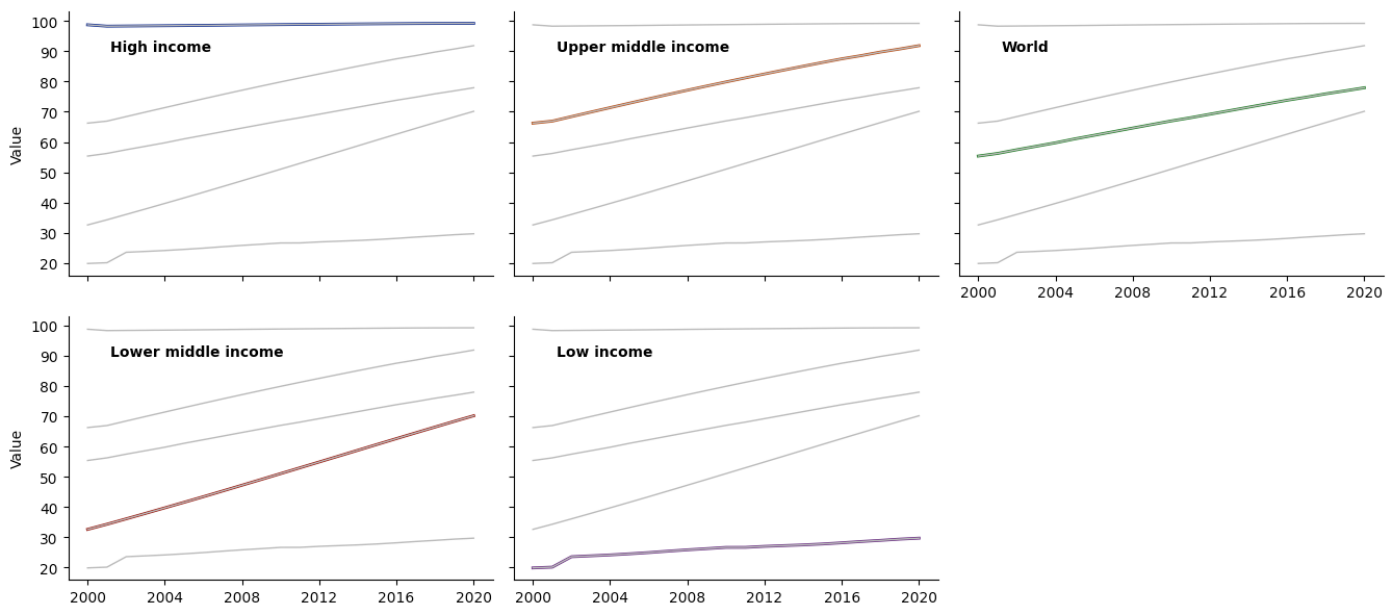


Figure 1. Percentage of population with access to basic sanitation facilities