

Analysis and Insights on All Member Countries' Progress on Sustainable Development Goals from Years 2000-2023

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Highlights

- The overall SDG scores indicate a global progression towards sustainable strategies and NetZero waste.
- The top progressive countries are from the OECD region, while the least progressive countries are mainly from Sub-Saharan Africa.
- SDGs 1, 4, and 6 were the most invested for the general quality of life. Meanwhile, SDGs 12, 13, and 14 were the least progressed due to the consumption of advanced technology.

Background

Sustainable development has become an indispensable endeavor as an attempt to reduce the consequences of climate change and develop renewable, inclusive, and economic strategies to achieve self-sufficiency and net-zero waste for all UN member countries. It is crucial to report and analyze the progress of the UN's member countries and identify the struggling Nations from the developing ones.



Figure 1: World Map SDG Score Distribution

Data

The data was referenced from [Kaggle](#) from the global trends of SDG. The database consists of two main data sets for 167 countries: the primary data set for the 2023 report and the secondary data set which consists of the compiled years of progressive reports and scores from 2000 to 2022

Tools

This project required data wrangling using MS Excel to clean the datasets, fill in null values, and organize the columns between databases. In the EDA phase, data exploration was done using Python within [Google Colab](#). Finally, the data visualization and dashboard phase was made using Tableau.

EDA

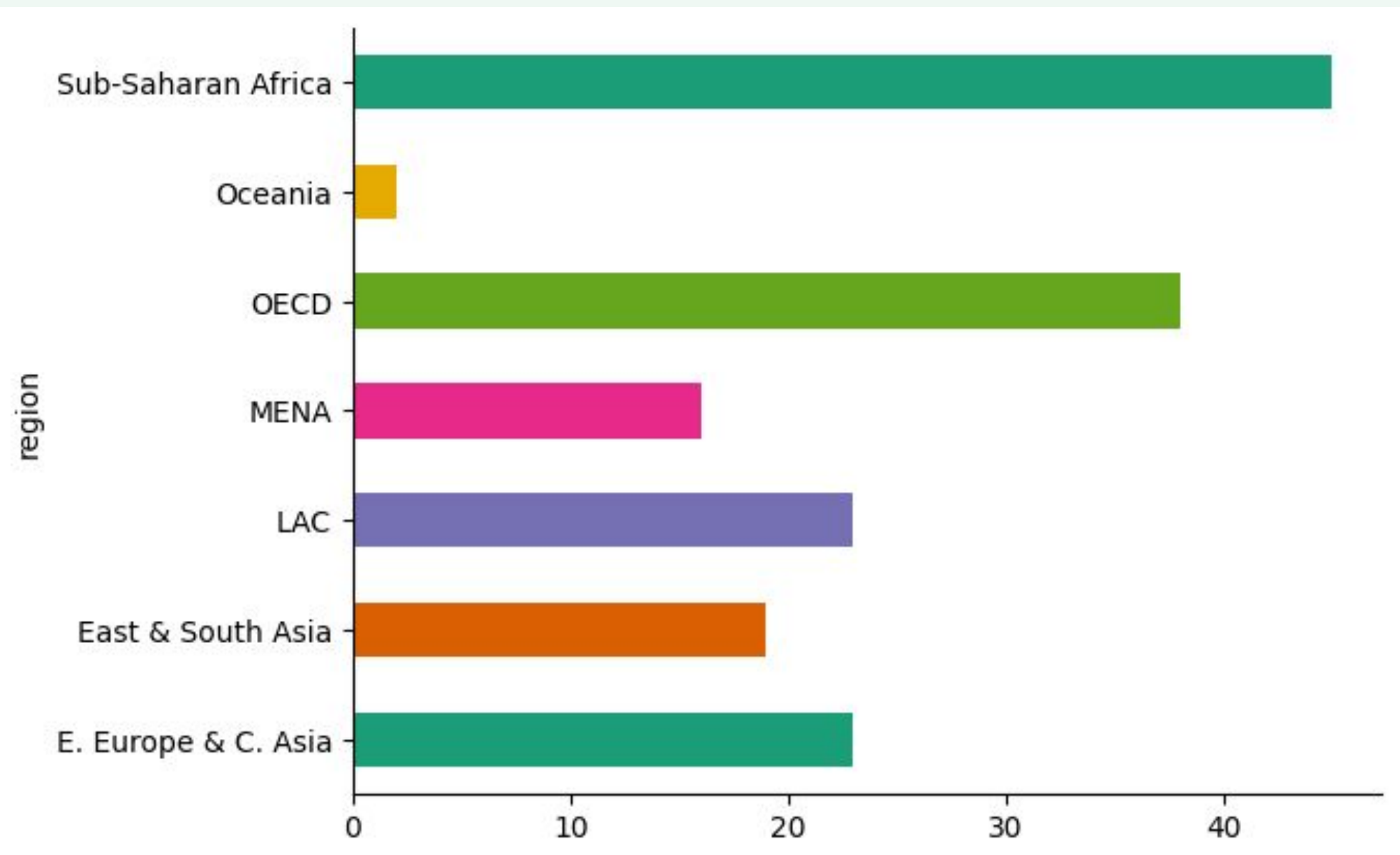


Figure 2: Global Regions and the Number of Countries in each category

SUB-SAHARAN Africa and the OECD regions recorded the highest number of countries in the datasets.

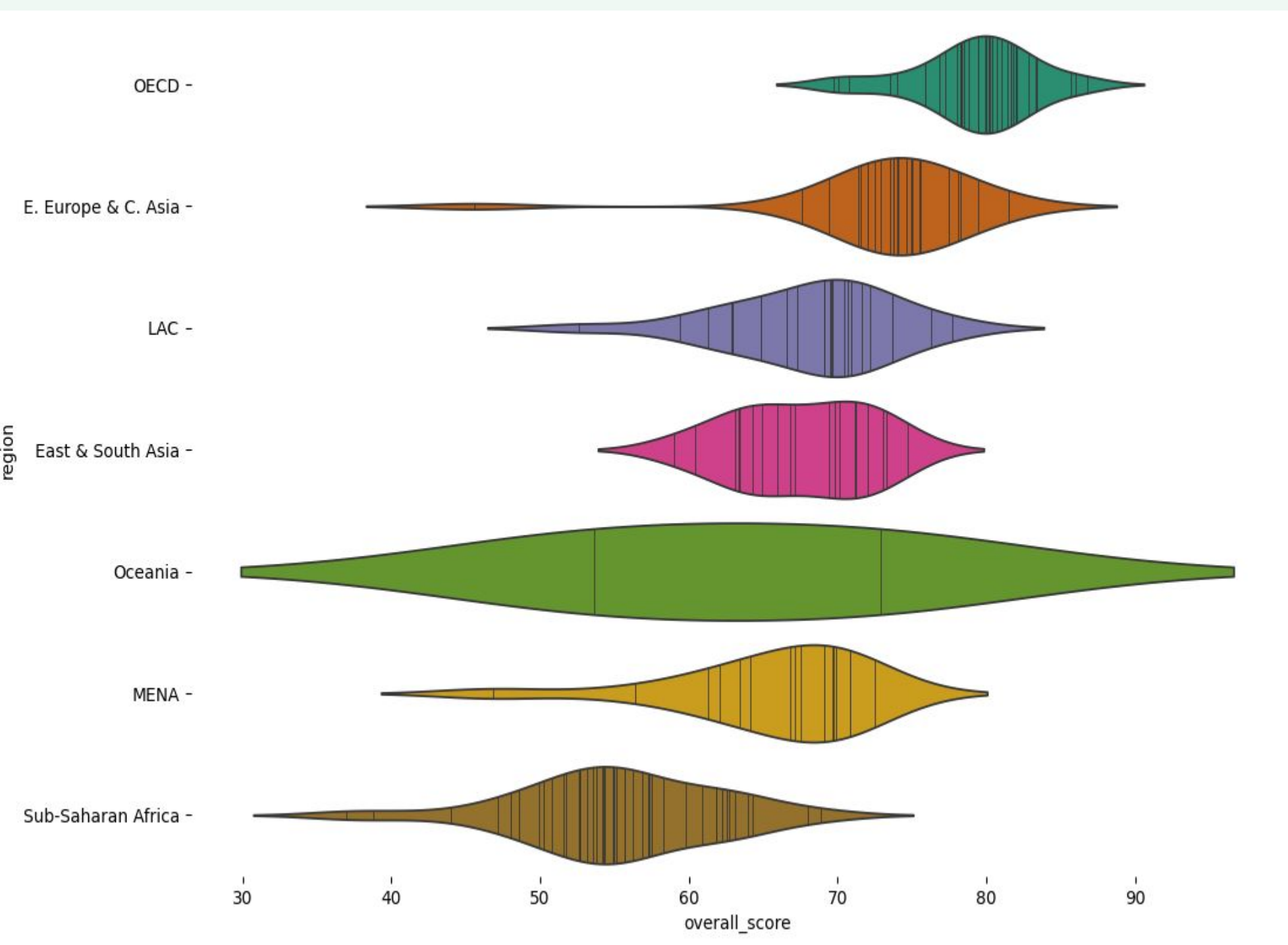


Figure 3: SDG 2023 Overall Scores (Violin Chart)

OECD region and E. Europe and C Asia record the highest scores from 75% and above, whereas Sub-Saharan Africa scores around 55% and below.

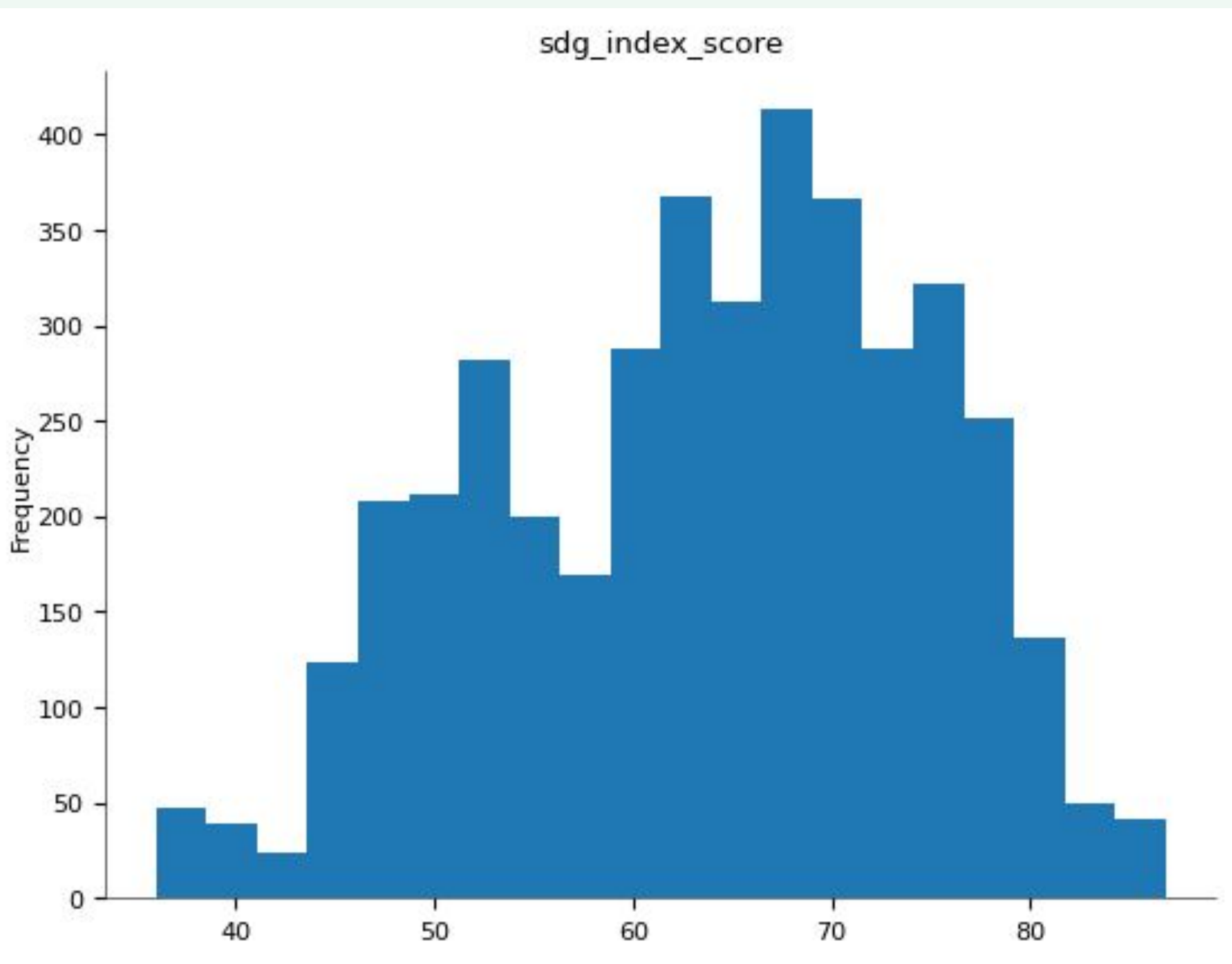


Figure 4: Frequency of SDG Index Scores from 2000-2022

The histogram shows that the sdg index scores overall have the highest frequency (over 400) around 70% from 2000 to 2022, signifying a negative skew towards higher scores.

Dashboard

The interactive [dashboard](#) presents the distribution of the SDG scores throughout all the regions. The years are featured as a filter where it can be shown individually for each reporting year or within a range.

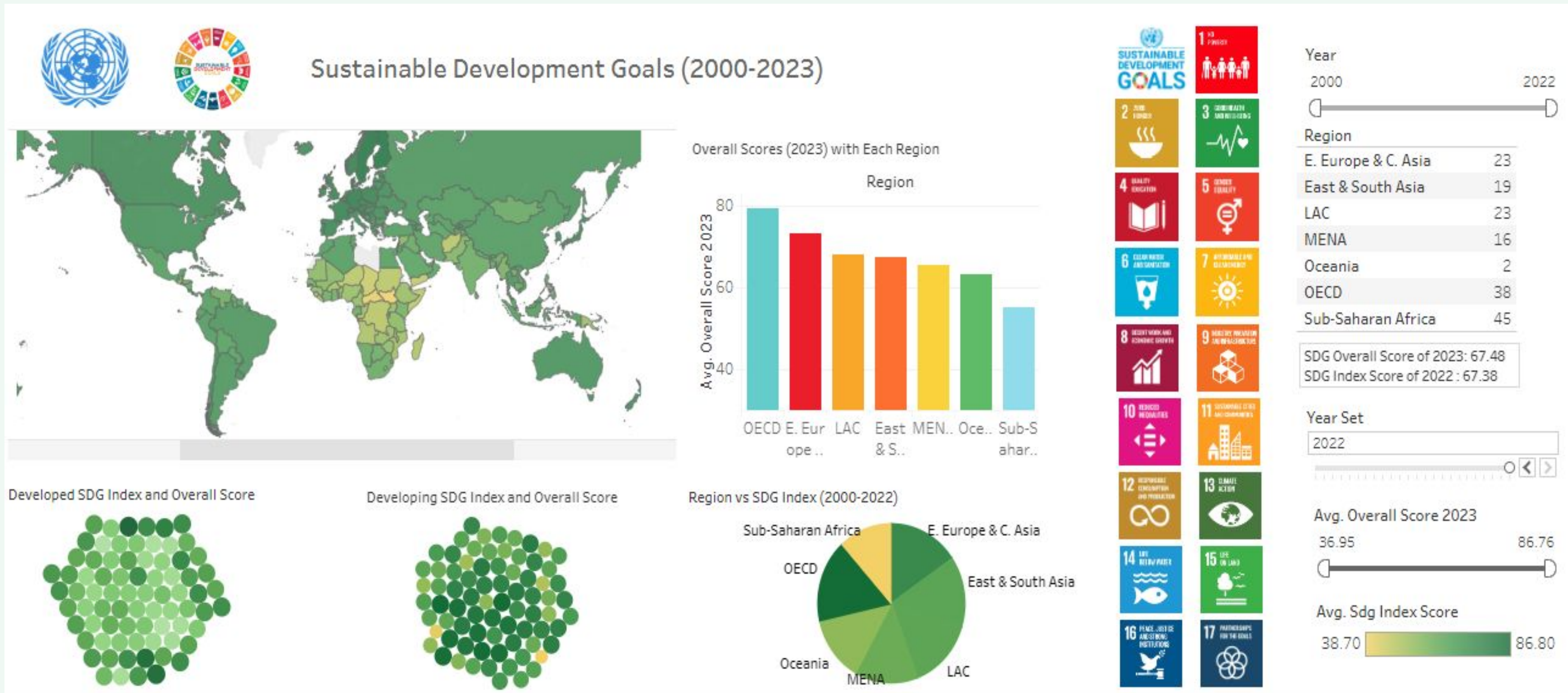


Figure 5: Sustainable Development Goals Dashboard

The top 10 member countries that are reported to be sustainably developed were in the OECD region: Finland, Sweden, Denmark, Germany, Austria, France, Norway, Czechia, Poland, and Estonia. And the least sustainably developed countries in 2023 were recorded in sub-Saharan Africa, E. Europe and C. Asia, and MENA region Liberia, Afghanistan, Congo Democratic Republic, Sudan, Niger, Somalia, Yemen Republic, Chad, Central African Republic, and South Sudan.

Conclusion

The analysis concludes that countries and regions such as sub-Saharan Africa and MENA as well as parts of Eastern Europe Central Asia require more resources in order to progress in their sustainable development strategies. Several limitations were met during this project, the main limitation the large size of data that is associated with each sustainable goal and the given time frame in order to submit the project. Future studies should focus on each sustainable goal for all member countries of the UN to further identify the advantages and disadvantages of each country.