

SAP Sustainability & Multidimensional Poverty Index Challenge

Challenge Overview

Welcome to the **SAP Sustainability & Multidimensional Poverty Index (MPI) Challenge**! In this datathon, you will leverage global sustainability and socioeconomic indicators to **construct a Multidimensional Index** that captures key aspects of poverty and development at the **country level**.

The challenge focuses on identifying **which factors contribute most** to poverty, proposing **targeted policy recommendations**, and uncovering **key areas for improvement** based on data-driven insights. SAP's commitment to **global sustainability and equitable growth** makes this an exciting opportunity to develop innovative solutions that can drive real-world impact.

Challenge Objectives

Participants will:

1. **Build a Multidimensional Index:**
 - Identify key indicators from the dataset that best capture different dimensions of poverty, including **education, health, and living standards**.
 - Aggregate these indicators into a **composite index** to compare and rank countries.
 - Explore relationships between sustainability efforts and poverty alleviation.
2. **Determine the Most Influential Indicators:**
 - Analyze which indicators contribute **most significantly** to poverty levels.
 - Utilize techniques such as **correlation analysis, feature importance methods, or principal component analysis (PCA)** to assess impact.
3. **Develop Policy Recommendations:**
 - Based on findings, propose **data-driven policy interventions** tailored to the **top N most affected countries**.
 - Highlight **areas for improvement** and potential solutions that align with **SAP's sustainability efforts**.

Evaluation Criteria

Submissions will be evaluated based on:

1. **Index Construction & Methodology (30%)**
 - How well the multidimensional index is structured and justified.
 - Soundness of methodology in weighting and aggregating indicators.
2. **Data-Driven Insights (25%)**
 - Depth of analysis in identifying **key contributing indicators** to poverty.
 - Use of statistical/machine learning techniques to determine influence.
3. **Policy Recommendations (20%)**
 - Relevance and feasibility of proposed interventions for the **top N affected countries**.
 - Alignment with **SAP's sustainability goals**.
4. **Innovation & Creativity (15%)**
 - Unique approaches in **index construction, visualization, or storytelling**.
5. **Clarity & Presentation (10%)**
 - Well-structured report, code, and visualizations to support conclusions.

Submission Requirements

- A **detailed report** outlining the methodology, analysis, and policy recommendations.
- A **visual representation** (dashboard, charts, or heatmaps) to illustrate findings.
- A **notebook or script** (Python, R, or SQL) showcasing the analytical workflow.