Key indicators to track current progress and future ambition of the Paris Agreement

We have had three years with virtually no growth in carbon dioxide emissions from fossil fuels and industry. What has caused the slowdown and does this put us on a path "well below 2°C"?

We developed a nested structure of key indicators to answer these questions. The key indicators are selected to map to the most important drivers of emission changes, key components of the Nationally Determined Contributions (NDCs), and key characteristics of 1.5°C and 2°C emission scenarios.

The framework is *nested*, so that we first focus on simple and overarching indicators, and then later zoom in to analyze more detailed and relevant components. As one penetrates deeper into the nested framework, the analysis can branch out into different areas for more relevant analysis.

Key indicators include essential information such as greenhouse gas emissions, gross domestic product, and energy use by energy type. Much of this information is reported by Parties to various international bodies (e.g., United Nations, International Energy Agency), but for practical purposes we often use harmonized data from third-parties.

Other key indicators could include planned infrastructure, public and private expenditure on research and development, implemented and planned policies, and similar. These indicators are harder to obtain, and scientific developments are needed to understand how these key indicators may affect future emissions.

In the poster, we focus on key indicators describing the recent slowdown in the growth of carbon dioxide emissions from fossil fuels and industry.

China, the US, and the European Union have all seen emission reductions recently. These countries are affected by lower than expected economic growth since the Global Financial Crisis in 2008/2009, but there is an emerging trend due to the shift from coal to gas and the rapid growth in solar and wind.

While solid progress has been made in the deployment of solar and wind, the continual lack of large-scale deployment of carbon capture makes it more challenging to keep global warming "well below 2°C".