

PRIMAP-hist v2.4.2: updated figures

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This document contains updates of the figures from Gütschow et al. [2016] using PRIMAP-hist v2.4.2 data. [Gütschow and Pflüger, 2023]

References

Johannes Gütschow and Mika Pflüger. The PRIMAP-hist national historical emissions time series (1750-2021) v2.4.2, March 2023. URL <https://zenodo.org/record/7727475>.

Johannes Gütschow, M. Louise Jeffery, Robert Gieseke, Ronja Gebel, David Stevens, Mario Krapp, and Marcia Rocha. The PRIMAP-hist national historical emissions time series. *Earth System Science Data*, 8(2):571–603, November 2016. ISSN 1866-3516. doi: 10.5194/essd-8-571-2016. URL <http://www.earth-syst-sci-data.net/8/571/2016/>.

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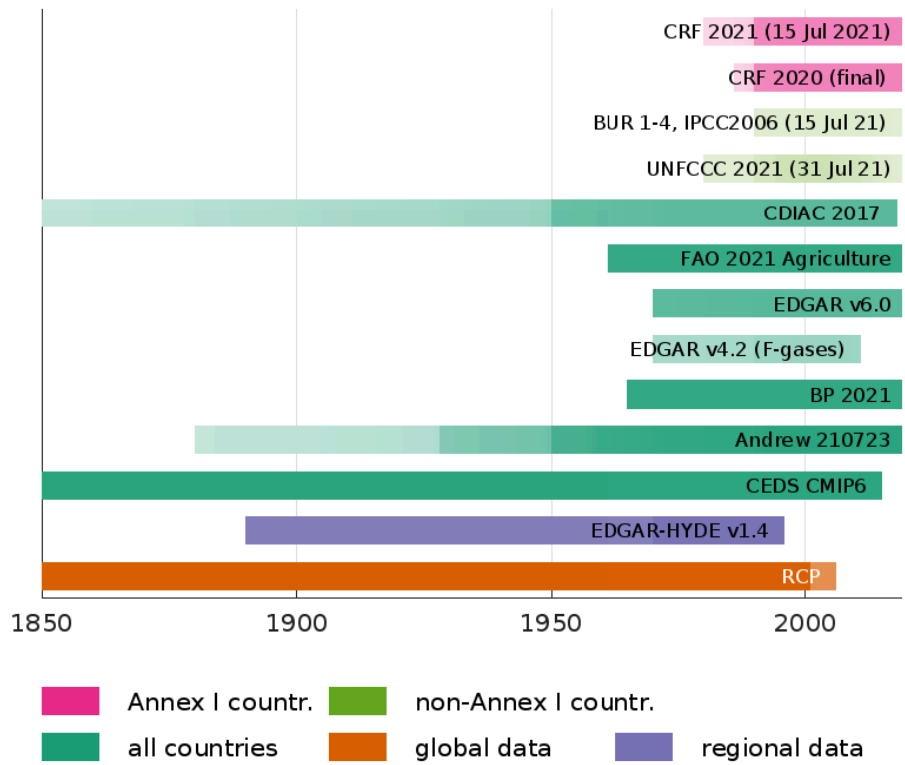


Figure 1: Coverage of years and countries in the sources used for the PRIMAP-hist dataset. The color indicates the country group covered or the regional resolution, while the intensities indicates the fraction of countries in the group covered by the source in each year. The fraction is taken over all gases and categories which can be seen in the CDIAC time series where the flaring time series only starts in 1950. RCP time series for CH₄ end in 2000 leading to the lower coverage after year 2000.

Example of the composite source generator (csg) work

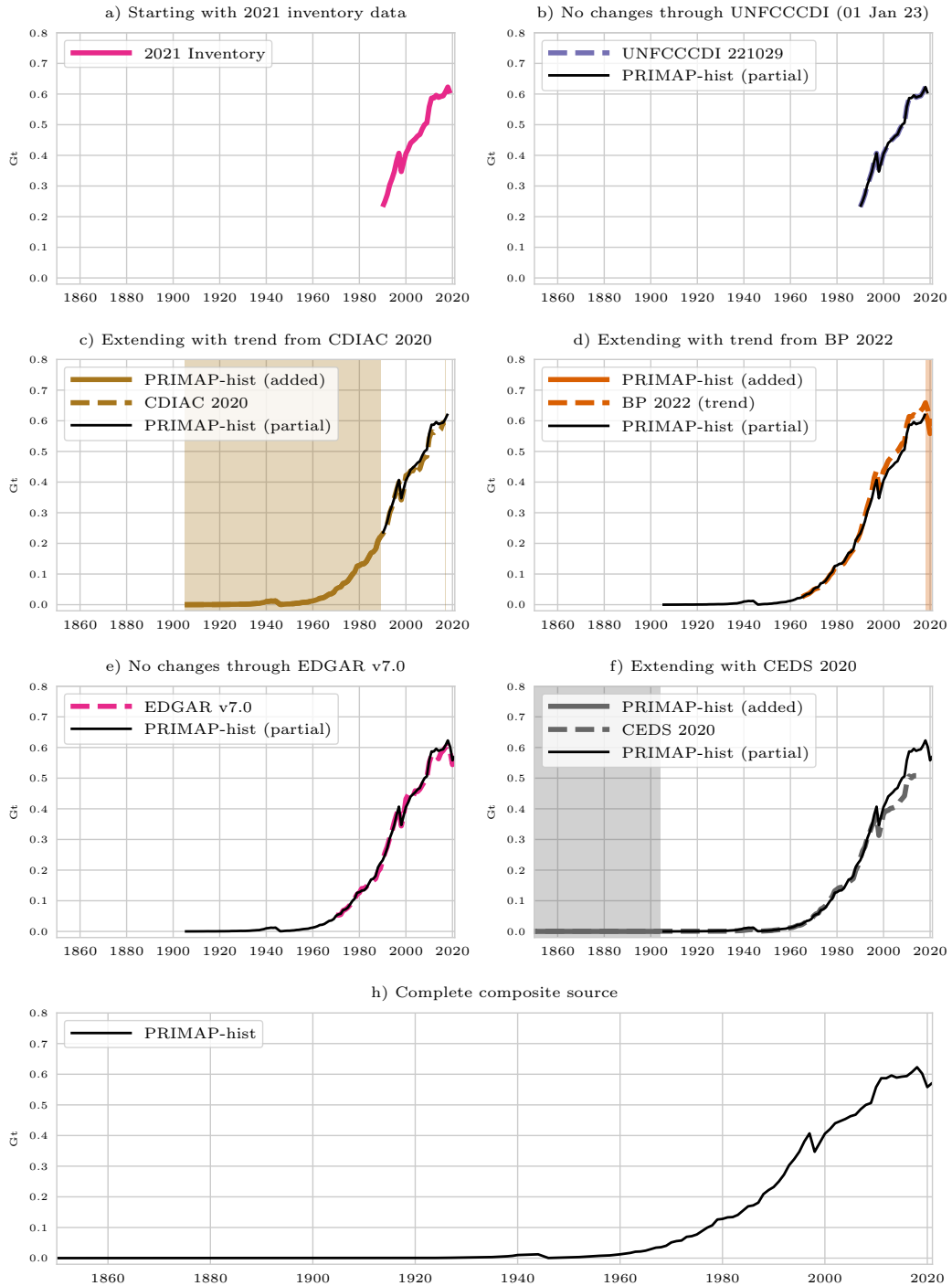


Figure 2: Example for the work of the composite source generator: the creation of the category 1.A, CO₂ pathway for South Korea. The buildup starts with the UNFCCC source as there is no CRF data for South Korea. Extrapolation is not needed in this case, so the step is omitted from the figure.

PRIMAP-hist v2.4.2 country reported priority data by sector for major emitters.

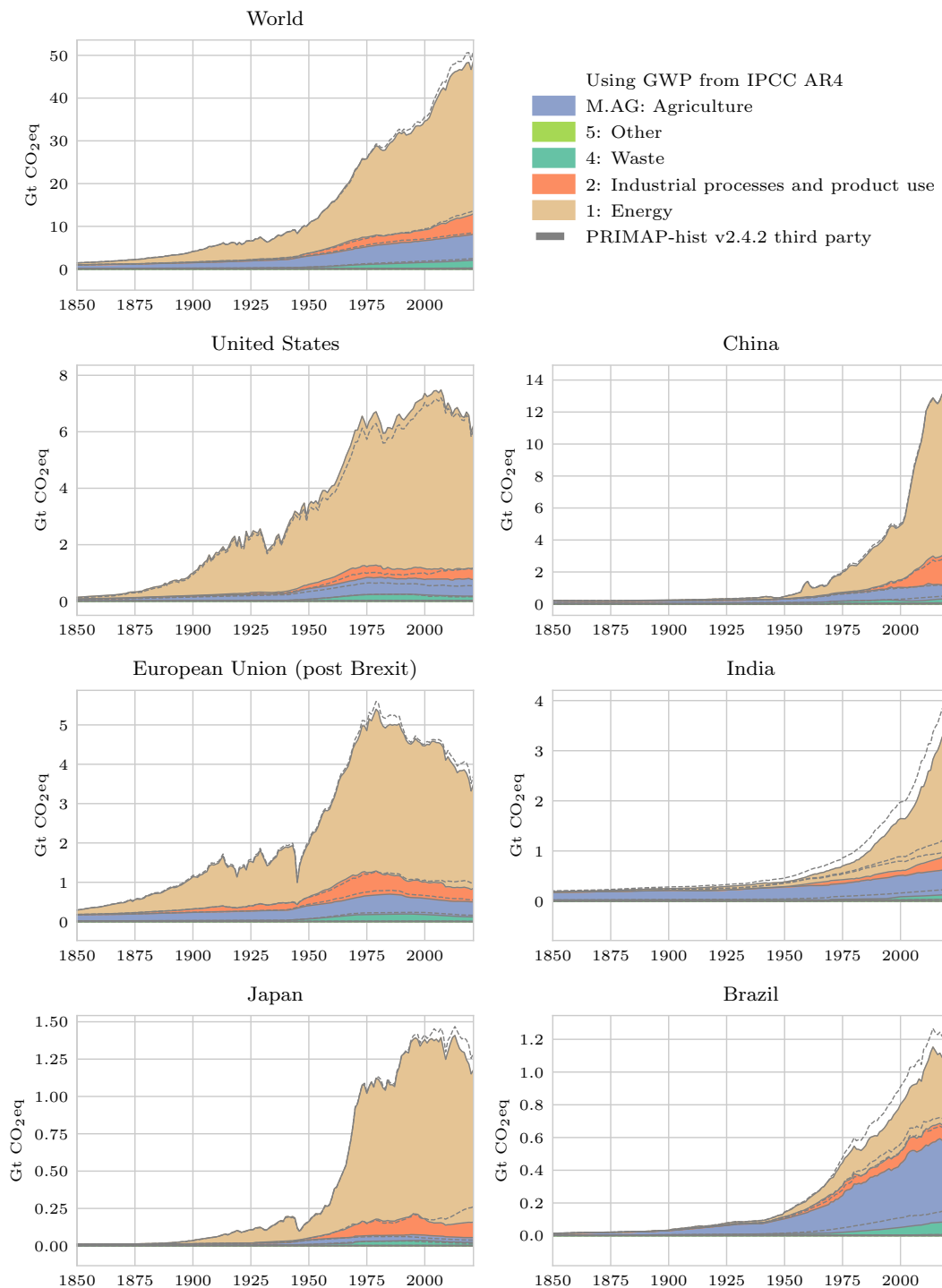


Figure 3: Emissions by sector for major emitters and the world. Where land use emissions are negative, the stacked emissions of the other sectors start at this negative value. International shipping and aviation emissions are not included.

PRIMAP-hist v2.4.2 country reported priority data by gas for major emitters.

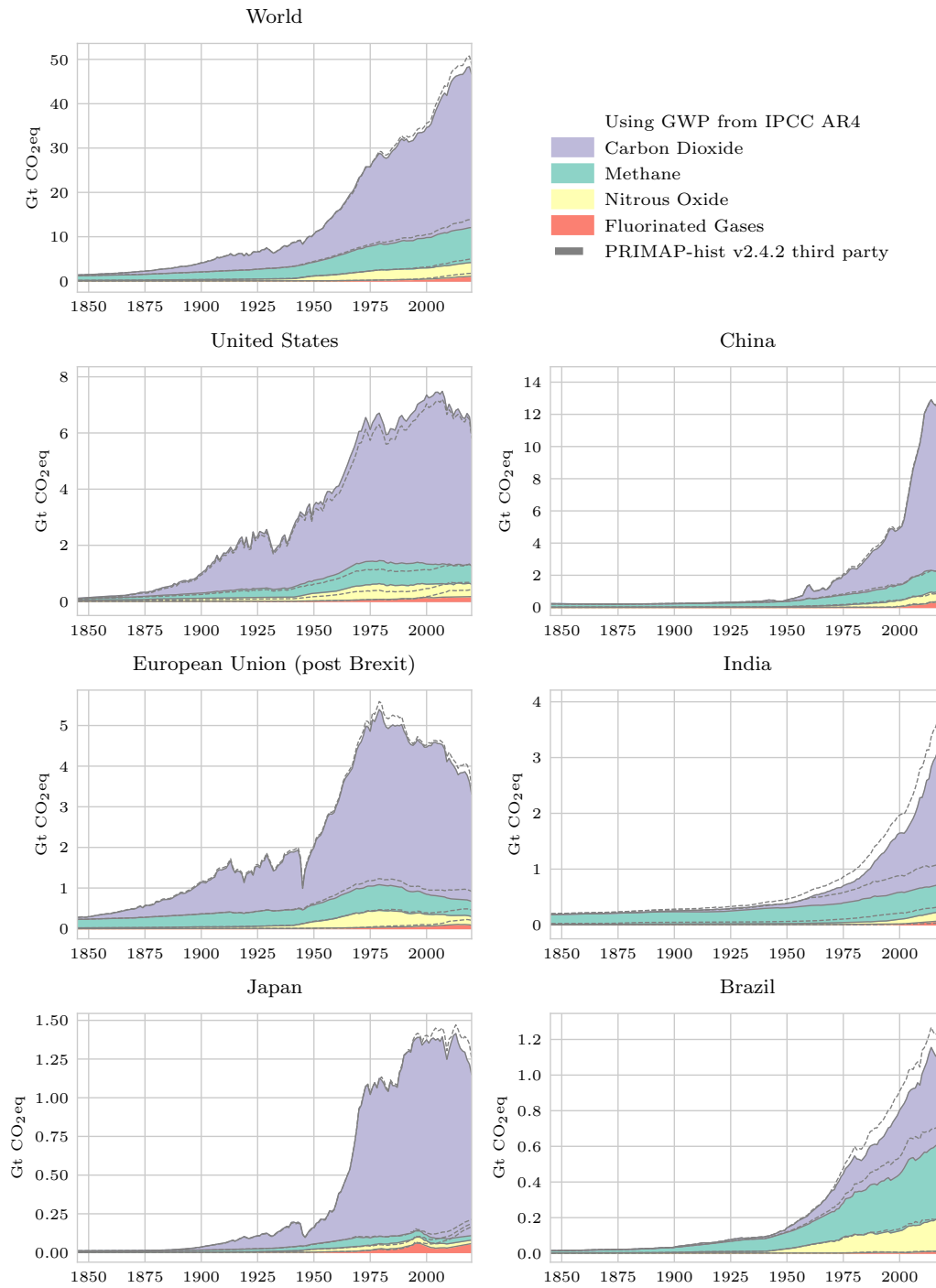


Figure 4: Emissions by gas for major emitters and the world. International shipping and aviation emissions are not included.

Comparison of PRIMAP-hist v2.4.2 country reported priority and third party priority timeseries with other sources

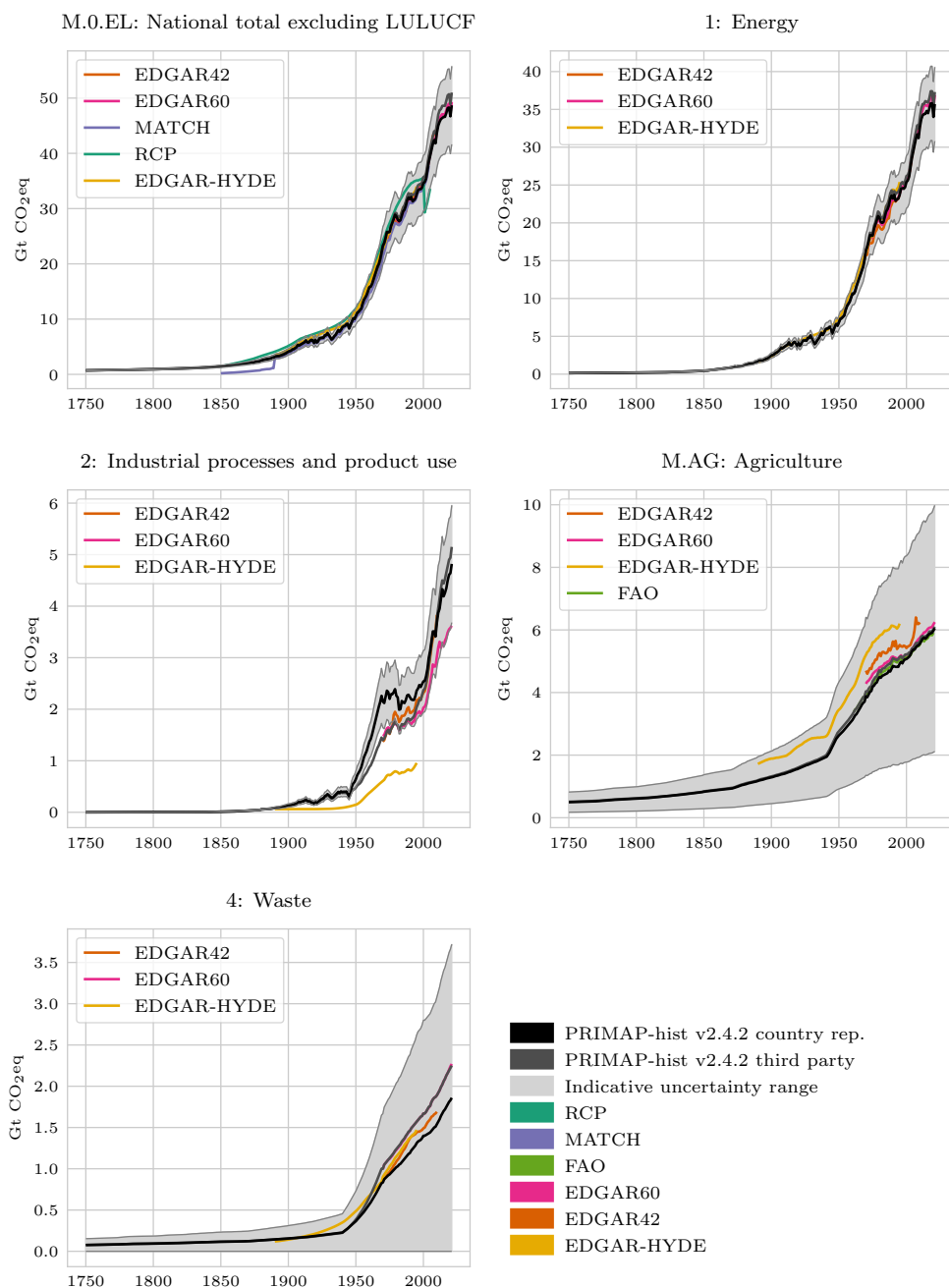


Figure 5: Comparison of the PRIMAP-hist dataset with both individual sources and composite datasets for aggregate Kyoto gases and the main IPCC 2006 categories. Grey shaded areas show the indicative uncertainty range from Table 10 of Gütschow et al. [2016] converted to IPCC2006 categories and applied to the PRIMAP-hist country reported priority dataset. Where different uncertainty estimates exist the average value is used. International shipping and aviation emissions are not included.

Comparison of PRIMAP-hist v2.4.2 country reported priority and third party priority timeseries with other sources

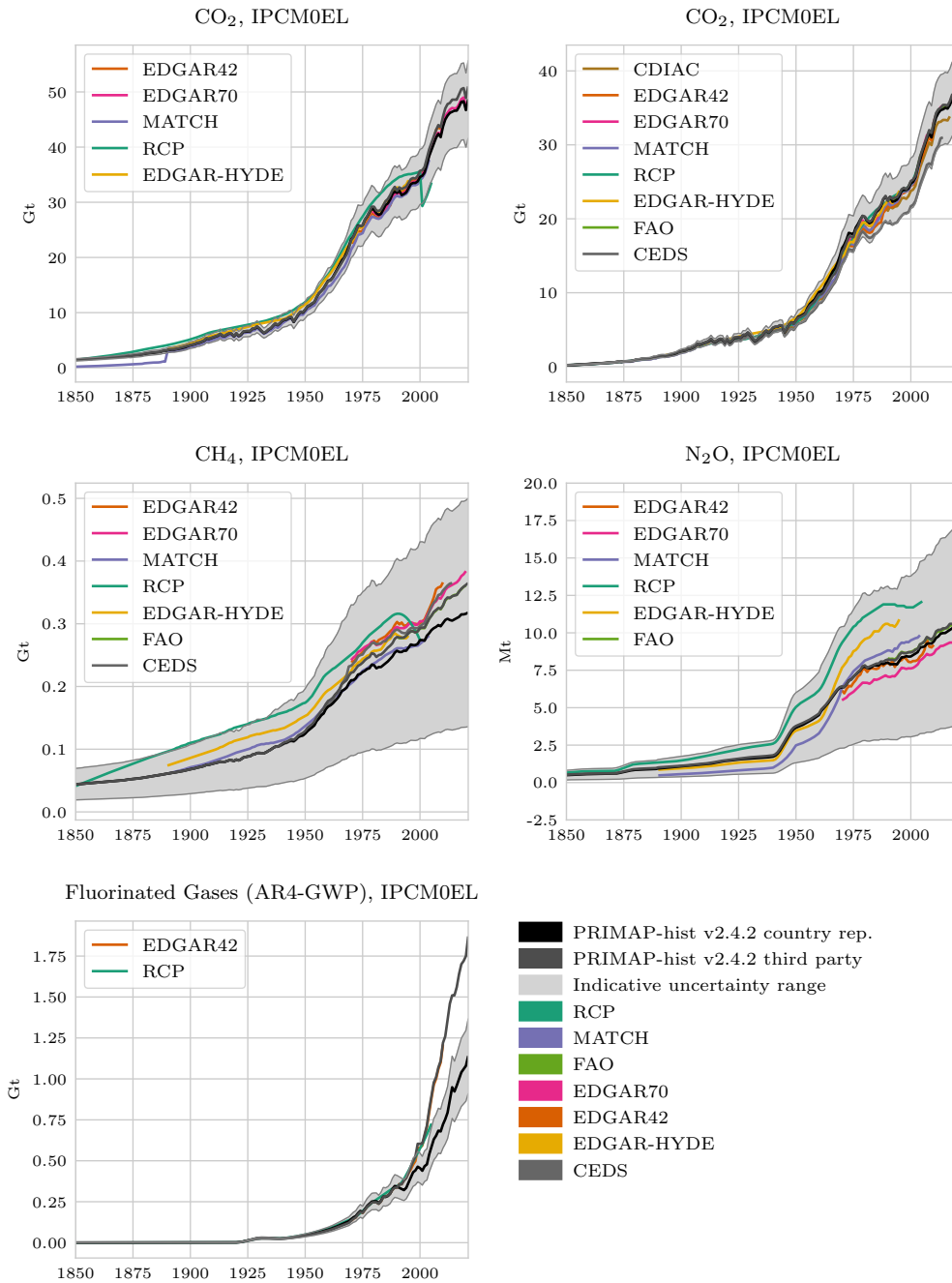


Figure 6: Comparison of the PRIMAP-hist dataset with both individual sources and composite datasets for different gases. Grey shaded areas show the indicative uncertainty range from Table 10 of Gütschow et al. [2016] converted to IPCC2006 categories and applied to the PRIMAP-hist country reported priority dataset. Where different uncertainty estimates exist the average value is used. International shipping and aviation emissions are not included.