



A new CO₂ and CH₄ satellite-derived dataset from the GHG-CCI project of ESA's Climate Change Initiative

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The GHG-CCI project (<http://www.esa-ghg-cci.org/>) is one of several projects of the European Space Agency's (ESA) Climate Change Initiative (CCI). The goal of the CCI is to generate and deliver data sets of various satellite-derived Essential Climate Variables (ECVs) in line with GCOS (Global Climate Observing System) requirements. The "ECV Greenhouse Gases" (ECV GHG) is the global distribution of important climate relevant gases – specifically atmospheric CO₂ and CH₄ - with a quality sufficient to obtain information on regional CO₂ and CH₄ sources and sinks. The main goal of GHG-CCI is to generate long-term highly accurate and precise time series of global near-surface sensitive satellite observations of CO₂ and CH₄. SCIAMACHY on ENVISAT and TANSO-FTS/GOSAT are currently the two main satellite instruments used within this project as their spectral radiance observations in the near-infrared range of the electromagnetic spectrum permit retrievals of CO₂ and CH₄ columns that are sensitive down to the Earth's surface and because multi-year time series can be derived from these data. In addition other satellite instruments such as IASI/METOP and MIPAS/ENVISAT are also used. In the presentation an overview about the latest data products will be given, which are part of a data set called Climate Research Data Package No. 3 (CRDP3). This data set is available free of charge from the GHG-CCI project website.