

GHG-CCI QSR January-March 2018

1. Overall progress

As already reported in previous QSRs, the main part of the project ended successfully and as planned in March 2017 with the delivery of the last data sets (“CRDP4”) and its documentation (see previous reports and below). Some “optional” Workpackages focussing on specific aspects have been completed successfully and as planned mid December 2017. No additional deliverables are required contractually but in order ensure a smooth transition to a possible CCI+ continuation the project had been cost-neutrally extended until mid 2018. During the reporting period focus was on publications and on participation at the 8th CCI Colocation Meeting (Oxford, 20-22 March 2018).

The most relevant final GHG-CCI documents are:

- Product Validation and Intercomparison Report (PVIR) for CRDP4 (PVIR5, 9-Feb-2017, 253 pages, http://www.esa-ghg-cci.org/?q=webfm_send/352)
- Climate Assessment Report (CAR) for CRDP4 (CARv4, 28-Mar-2017, 96 pages, http://www.esa-ghg-cci.org/?q=webfm_send/385)

Peer-reviewed publications: The entire publication list is given on the GHG-CCI website: <http://www.esa-ghg-cci.org/> -> Publications (all publications using GHG-CCI data sets are marked with (*)).

Future: As already explained in previous reports, some GHG-CCI team members are since 1st of November 2016 part of C3S (<https://climate.copernicus.eu/>) via project “Production of Essential Climate Variable Datasets based on Earth Observations: Greenhouse Gases (carbon dioxide and methane) (C3S_312a_Lot6)” led by Univ. of Bremen. This C3S project is essentially the operational continuation of GHG-CCI and the GHG-CCI data set will be extended in time via this C3S project. Not covered are R&D aspects, which can hopefully be covered in the future via CCI+.

2. Technical information

2.1 Publications since last QSR (or not listed in previous reports):

Buchwitz, M., Reuter, M., Schneising, O., Noël, S., Gier, B., Bovensmann, H., Burrows, J. P., Boesch, H., Anand, J., Parker, R. J., Somkuti, P., Detmers, R. G., Hasekamp, O. P., Aben, I., Butz, A., Kuze, A., Suto, H., Yoshida, Y., Crisp, D., and O'Dell, C., Computation and analysis of atmospheric carbon dioxide annual mean growth rates from satellite observations during 2003-2016, *Atmos. Chem. Phys. Discuss.*, <https://doi.org/10.5194/acp-2018-158>. in review, 2018.

Merchant, C. J., Paul, F., Popp, T., Ablain, M., Bontemps, S., Defourny, P., Hollmann, R., Lavergne, T., Laeng, A., de Leeuw, G., Mittaz, J., Poulsen, C., Povey, A. C., Reuter, M., Sathyendranath, S., Sandven, S., Sofeiva, V. F. and Wagner, W., Uncertainty information in climate data records from Earth observation, *Earth System Science Data*, 9 (2), pp. 511-527, ISSN 1866-3516, 2017.

Sheng, J.-X., Jacob, D. J., Turner, A. J., Maasackers, J. D., Benmergui, J., Bloom, A. A., Arndt, C., Gautam, R., Zavala-Araiza, D., Boesch, H., and Parker, R. J.: 2010–2015 methane trends over Canada, the United States, and Mexico observed by the GOSAT satellite: contributions from different source sectors, *Atmos. Chem. Phys. Discuss.*, <https://doi.org/10.5194/acp-2017-1110>, in review, 2018.

2.2 Number of users

Number of users (mid 2011 to 26-March-2018): 706 (39 during reporting period).

*** End of Report ***