- **dataset title:** Carbon and energy footprints of European households (EU HBS)

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- **dataset description (abstract)**

This dataset contains micro-level carbon and energy footprint calculations based on consumption data from the Household Budget Surveys (HBS) disseminated by Eurostat, wave 2010. The dataset contains total carbon and energy footprints (generated by the authors), household IDs and country codes (generated by Eurostat). The household and country ID variables are included in order to allow for households to be identifiable by users of the HBS dataset disseminated by Eurostat. For access to other variables in the HBSs (e.g. household weighting, household size, income etc), please seek microdata access through the official Eurostat portal.

Variable description:

HA04 – Household ID variable generated by the Eurostat – contains unique household identifier by country

COUNTRY – Country code names as generated by the Eurostat

cf_cap – Carbon footprint for an average household member generated by the authors in kilogram CO_2-equivalents ($kgCO_2eq/cap$).

cf_cap_* – Carbon footprint by consumption category in kgCO2eq/cap, where * stands for the consumption categories of rent, fuels, electricity, household services, appliances and equipment, food, transport and other services

ef_cap – Energy footprint for an average household member generated by the authors in terajoules (TJ/cap).

ef_cap_* – Energy footprint by consumption category in TJ/cap, where * stands for the consumption categories of rent, fuels, electricity, household services, appliances and equipment, food, transport and other services

We calculated annual carbon and energy footprints per capita (average member of the household), utilizing the multiregional input-output database EXIOBASE (version 3.7). We applied the Global Warming Potential (GWP100) metric to convert various GHGs (carbon dioxide, methane, nitrous oxide and sulphur hexafluoride) to kilograms CO_2-equivalents per year ($kgCO_2eq$). Annual energy use was calculated using the net energy extension measures in terajoules (TJ). There is no double counting with regards to the conversion from primary sources (derived directly from nature, e.g., coal) into secondary sources (transformed for a certain industry or household use, e.g., electricity).

For more detail, see papers that utilize that dataset:

Ivanova, D.; Büchs, M. Household sharing for carbon and energy reductions: the case of EU countries. *Energies* **2020**, 13, 1–28. https://www.mdpi.com/1996-1073/13/8/1909

Ivanova, D.; Wood, R. The unequal distribution of household carbon footprints in Europe and its link to sustainability. *Glob. Sustain.* **2020**.

- **software:**

Two data formats are available: A Comma Separated Values (CSV) and Stata format (DAT). The Stata format can be used directly in Stata, while the CSV format will be more appropriate for other software.

- **project title:**

The potential of Sharing Resources for mitigating carbon emissions and other environmental impacts (ShaRe).

- **funder (s):** H2020-MSCA-IF-2018

- **grant number:** Grant agreement number 840454.

- **academic subject:**

interdisciplinary: industrial ecology, economics, sociology, earth science

- **institutional division:**

Sustainability Research Institute, School of Earth and Environment, University of Leeds