



Reproducible Research Repository

The Poverty Cost Of Greenhouse Gas Emissions

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This review verifies the reproducibility of the exhibits included in the paper “*The Poverty Cost Of Greenhouse Gas Emissions*”.

Contents in this review:

1. Main findings
2. List of exhibits and reproducibility status
3. Reproduction Environment

Main findings

- **Every exhibit in the main section of the paper and in the appendix were reproduced accurately**
- The code was successfully executed on a new computer after:
 1. Running the 00-master.R script following the instructions in the README.
- The output demonstrates consistent stability across multiple runs. Specifically, executing the code two times consecutively yielded identical results.
- The code takes approximately 4 hours 30 minutes to run.
- We conducted our reproducibility analysis based on the paper shared by the authors in the reproducibility package.
- **Verification Process and Data Handling:**
 - The reproducibility package relies on two types of data: open, and restricted data (available only from the authors).
 - Open data is included in the public reproducibility package.
 - Reviewers used restricted data provided directly by the authors to conduct the reproducibility verification, and this is not included in the public reproducibility package.
 - *data_hash_report.csv* lists the SHA256 hashes of all files in the Data folder to support data integrity checks. Users who acquire the restricted data can use this file to verify that the data has not been altered.
- **Reproducibility Summary:**
 - **Data:** Some data is restricted and has not been included in the reproducibility package. For more details, please refer to the README file.

- **Code:** All code files (from cleaning to analysis) are included in the reproducibility package.
- **Outputs:** All outputs are generated by code included in the reproducibility package.
- **Dependencies environment:** The reviewers created a new environment using the latest versions of dependencies available at the moment of the review.

List of exhibits and reproducibility status

Results in the Main Section of the Paper

- **Figure 1a** Reproduced. Verified against Fig1a.
- **Figure 1b** Reproduced. Verified against Fig1b.
- **Figure 1c** Reproduced. Verified against Fig1c.
- **Figure 2a** Reproduced. Verified against Fig2a.
- **Figure 2b** Reproduced. Verified against Fig2b.
- **Figure 2c** Reproduced. Verified against Fig2c.
- **Figure 3a** Reproduced. Verified against Fig3a.
- **Figure 3b** Reproduced. Verified against Fig3b.

Results in the Annex

- **Figure S1** Reproduced. Verified against FigS1.
- **Figure S2** Reproduced. Verified against FigS2.
- **Figure S3** Reproduced. Verified against FigS3.
- **Figure S4a** Reproduced. Verified against FigS4a.
- **Figure S4b** Reproduced. Verified against FigS4b.
- **Figure S4c** Reproduced. Verified against FigS4c.
- **Figure S5** Reproduced. Verified against FigS5.
- **Figure S6** Reproduced. Verified against FigS6.
- **Figure S7** Reproduced. Verified against FigS7.
- **Figure S8** Reproduced. Verified against FigS8.
- **Table S1** Reproduced. Verified against the results window. Minor differences are present between the results window and the table, but overall the results are considered reproducible.

Reproduction Environment

Paper exhibits were reproduced on a computer with the following specifications:

- OS: Windows 11 Enterprise
- Processor: Intel(R) Xeon(R) Gold 6226R CPU @ 2.90GHz
- Memory available: 32.0 GB
- Software version: R 4.5.1