



Evaluating Paraguay's Vulnerability to the EU Deforestation-Free Regulation

First Submission: RR_PRY_2025_514

Padmakshi Singh, Mahin Tariq

reproducibility@worldbank.org

January 7, 2026

This review verifies the reproducibility of the exhibits included in the paper "*Evaluating Paraguay's Vulnerability to the EU Deforestation-Free Regulation*".

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 has been reproduced accurately.**
- The code was successfully executed on a new computer after:
 1. Changing the file paths in the main dofile and R script.
- The output demonstrates consistent stability across multiple runs. Specifically, executing the code two times consecutively yielded identical results.
- The code takes approximately 4 hours 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 3 types of data: open, accessible (public but not included in the reproducibility package) 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 forthcoming/accessible/limited-access/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 1** Reproduced.
- **Figure 2** Reproduced.
- **Figure 3** Reproduced.
- **Figure 4** Reproduced.
- **Figure 5** Reproduced.
- **Figure 6** Reproduced.
- **Figure 7** Reproduced.
- **Figure 8** Reproduced.
- **Table 1** Reproduced.
- **Table 2** Does not show analysis results.
- **Table 3** Does not show analysis results.
- **Table 4** Reproduced.
- **Table 5** Reproduced.

Results in the Annex

- **Annex 1** Does not show analysis results
- **Annex 2** Does not show analysis results
- **Figure A3.1** Results reproduced, but figure includes manual changes from code output. We verified the values shown in the figure by cross-checking the CSV outputs and raw datasets that were copied into the Excel file Figures_Annex.xlsx used to generate the figure.
- **Figure A3.2** Results reproduced, but figure includes manual changes from code output. We verified the values shown in the figure by cross-checking the CSV outputs and raw datasets that were copied into the Excel file Figures_Annex.xlsx used to generate the figure.

- **Figure A3.3** Results reproduced, but figure includes manual changes from code output. We verified the values shown in the figure by cross-checking the CSV outputs and raw datasets that were copied into the Excel file *Figures_Annex.xlsx* used to generate the figure.
- **Figure A4.1** Results reproduced, but figure includes manual changes from code output. We verified the values shown in the figure by cross-checking the CSV outputs and raw datasets that were copied into the Excel file *Figures_Annex.xlsx* used to generate the figure.

Reproduction Environment

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

- OS: Windows 11 Enterprise
- Processor: Intel(R) Core(TM) i5-1145G7 CPU @ 2.60GHz
- Memory available: 15.7 GB
- Software version: Stata 18.0 MP, R 4.5.1