



# Reproducible Research Repository

## *The Welfare Cost of Drought in Sub-Saharan Africa*

*Second Submission: RR\_SSA\_2024\_250*

*Ankriti Singh*

*reproducibility@worldbank.org*

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This review verifies the reproducibility of the exhibits included in the paper “*The Welfare Cost of Drought in Sub-Saharan Africa*”.

### **Contents in this review:**

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

### *Main findings*

- **Every exhibit has been reproduced accurately.**
- The code was successfully executed on a new computer after:
  1. Updating global directoy.
- The code takes approximately 2 days to run.
- We conducted our reproducibility analysis based on the paper shared by the authors via email on July 1, 2025.
- The package includes three types of data: public, limited-access (available to World Bank internal users), and restricted data (available only from the authors). Publicly available data is included in the public reproducibility package.

Reviewers verified that the limited-access data matches what was provided by the authors; results of this verification are documented in `comparison_report.csv`, which is included in the package. Additionally, `data_hash_report` lists hashes of all files in the `Input_Data` folder to support data integrity checks. Users who request the restricted data from the authors 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.

- **Reproducibility verification:** Reviewers used data provided directly by the authors to conduct the reproducibility verification, and this is not included in the public reproducibility package. The package includes a data\_hash\_report file, which lists hashes of all input data files to support verification and ensure data integrity.
- **Dependencies environment:** The reviewers created a new environment for dependencies using the latest versions available for each dependency at the moment of the review.

### *List of exhibits and reproducibility status*

#### **Results in the Main Section of the Paper**

- **Table 3.1** Does not apply
- **Table 3.2** Reproduced.
- **Table 3.3** Does not apply
- **Table 3.4** Reproduced.
- **Table 3.5** Reproduced.
- **Table 3.6** Reproduced.
- **Table 4.1** Does not apply
- **Table 4.2** Reproduced.
- **Table 4.3** Reproduced.
- **Table 4.4** Reproduced.
- **Table 4.5** Reproduced.
- **Table 4.6** Reproduced.
- **Table 4.7** Reproduced but includes manual changes. The first 3 columns “Total consumption, all countries in zone” come from table 4.1, but the numbers match, so this is considered reproducible.
- **Table 4.8** Reproduced but includes manual changes. The first 3 columns “Total consumption, all countries in zone” come from table 4.2, but the numbers match, so this is considered reproducible.
- **Table 5.1** Reproduced.
- **Table 5.2** Reproduced. There is a slight difference in the values for the row labeled Pastoral. In the code output, the values are 0, 0.00, and 0.37, whereas in the paper, the values are 0, 0.01, and 0.38.
- **Figure 3.1** Does not apply
- **Figure 4.1** Reproduced.
- **Figure 4.2** Reproduced.

- **Figure 5.1** Reproduced.
- **Figure 5.2** Reproduced.
- **Figure 5.3** Reproduced.

#### Results in the Annex

- **Table A.1** Does not apply
- **Table B.1** Does not apply
- **Table B.2** Does not apply
- **Table C.1** Does not apply
- **Figure C.1** Does not apply
- **Figure C.2** Does not apply
- **Figure D.1** Does not apply
- **Figure D.2** Does not apply
- **Figure D.3** Does not apply

#### *Reproduction Environment*

- Paper exhibits were reproduced in a computer with the following specifications:
  - OS: Windows 11 Enterprise
  - Processor: INTEL(R) XEON(R) PLATINUM 8562Y+ 2.80 GHz (2 processors)
  - Memory available: 32.0 GB
  - Software version: Stata 18.0 MP