Impacts and Spillovers of a Low-Cost Multi-faceted Economic Inclusion Program in Chad

Overview

This code in this replication package cleans raw data, constructs outcomes and constructs the analysis file using Stata and excel. A single master script orchestrates the entire workflow, producing the data and generating 35 tables. The replicator should expect the code to run for about 110 minutes.

Data Availability

The data for this study were collected by the authors through two survey rounds: a baseline and a followup. The data are currently confidential and unavailable to third parties. The data will be made publicly accessible through the World Bank's Microdata Catalog at a later date.

When data becomes available, refer to the folder structure below as a reference for adding files:

Baseline files:

\Data\Baseline\02_deduplicated_deidentified

tchad_ie_baseline9-gp_consent-section_agriculture-section_cropsdry1-rpt_plotdry.dta
tchad_ie_baseline9-gp_consent-section_agriculture-section_cropsdry2-rpt_dcrops2.dta
tchad_ie_baseline9-gp_consent-section_agriculture-section_cropsrain1-rpt_plotrain.dta
tchad_ie_baseline9-gp_consent-section_agriculture-section_cropsrain2-rpt_rcrops2.dta
tchad_ie_baseline9-gp_consent-section_agriculture-section_plot-rpt_plots.dta
tchad_ie_baseline9-gp_consent-section_assets-rpt_ag_ass.dta
tchad_ie_baseline9-gp_consent-section_assets-rpt_hh_ass.dta
tchad_ie_baseline9-gp_consent-section_emploi-rpt_empl.dta
tchad_ie_baseline9-gp_consent-section_emploi-rpt_wrk.dta
tchad_ie_baseline9-gp_consent-section_finance-part_credit-rpt_cred.dta
tchad_ie_baseline9-gp_consent-section_finance-part_othersave-gp_savemoreinfo.dta
tchad_ie_baseline9-gp_consent-section_finance-part_tontines-rpt_ton.dta
tchad_ie_baseline9-gp_consent-section_foodconsumption-rpt_consum1.dta
tchad_ie_baseline9-gp_consent-section_foodconsumption-rpt_consum2.dta
tchad_ie_baseline9-gp_consent-section_livestock-rpt_ani1.dta
tchad_ie_baseline9-gp_consent-section_members-rpt_mem2.dta
tchad_ie_baseline9-gp_consent-section_na-gp_bus2-rpt_bus2.dta
tchad_ie_baseline9-gp_consent-section_na-rpt_bus1.dta
tchad_ie_baseline9-gp_consent-section_nfconsumption-gp_cel-rpt_cel1.dta
tchad_ie_baseline9-gp_consent-section_nfconsumption-gp_cel-rpt_cel2.dta
tchad_ie_baseline9-gp_consent-section_nfconsumption-gp_nonfood-rpt_nonfood.dta
tchad_ie_baseline9-gp_consent-section_programs-rpt_prog.dta
tchad_ie_baseline9-gp_consent-section_roster-rpt_mem.dta
tchad_ie_baseline9-gp_consent-section_social-rpt_conf.dta
tchad_ie_baseline9-gp_consent-section_transfers-rpt_trans.dta
tchad_ie_baseline9-gp_drykeycond-rpt_dcrops.dta
tchad_ie_baseline9-gp_empl_cond-rpt_sal.dta
tchad_ie_baseline9-gp_rainkeycond-rpt_rcrops.dta
tchad_ie_baseline9.dta

\Data\Baseline\experimental_design

sample_bl.dta
sample_fu.dta
sample_pop.dta

\Data\Baseline\pmt

PMT_DATA_HH_FINAL_revisedv2.dta

\Data\Baseline\pop

all_villages.dta

Follow-up files:

\Data\Followup\02_deduplicated_deidentified

tchad_ie follow-up 1-gp_consent-section_agriculture-section_cropsrain1-rpt_plotrain.dta
tchad_ie follow-up 1-gp_consent-section_agriculture-section_cropsrain2-rpt_rcrops2.dta
tchad_ie follow-up 1-gp_consent-section_agriculture-section_plots-rpt_plots.dta
tchad_ie follow-up 1-gp_consent-section_assets-rpt_ag_ass.dta
tchad_ie follow-up 1-gp_consent-section_assets-rpt_hh_ass.dta
tchad_ie follow-up 1-gp_consent-section_cashtrans-rpt_buytypes.dta
tchad_ie follow-up 1-gp_consent-section_cashtrans-rpt_trans_send.dta
tchad_ie follow-up 1-gp_consent-section_emploi-gp_empl_cond-rpt_sal.dta
tchad_ie follow-up 1-gp_consent-section_emploi_chef-gp_empl_cond_chef-rpt_sal_chef.dta
tchad_ie follow-up 1-gp_consent-section_finance-part_credit-rpt_cred.dta
tchad_ie follow-up 1-gp_consent-section_finance-part_othersave-gp_savemoreinfo.dta
tchad_ie follow-up 1-gp_consent-section_finance-part_savgroup-rpt_ton.dta
tchad_ie follow-up 1-gp_consent-section_foodconsumption-rpt_consum1.dta
tchad_ie follow-up 1-gp_consent-section_foodconsumption-rpt_consum2.dta
tchad_ie follow-up 1-gp_consent-section_housing-r_improve.dta
tchad_ie follow-up 1-gp_consent-section_livestock-rpt_ani1.dta
tchad_ie follow-up 1-gp_consent-section_livestock-r_four.dta
tchad_ie follow-up 1-gp_consent-section_members-rpt_mem2.dta
tchad_ie follow-up 1-gp_consent-section_na-gp_bus2-rpt_bus2.dta
tchad_ie follow-up 1-gp_consent-section_nfconsumption-gp_cel-rpt_cel1.dta
tchad_ie follow-up 1-gp_consent-section_nfconsumption-gp_cel-rpt_cel2.dta
tchad_ie follow-up 1-gp_consent-section_nfconsumption-gp_nonfood-rpt_nonfood.dta
tchad_ie follow-up 1-gp_consent-section_programs-rpt_prog.dta
tchad_ie follow-up 1-gp_consent-section_roster-rpt_mem.dta
tchad_ie follow-up 1-gp_consent-section_shocks-rpt_shocks2.dta
tchad_ie follow-up 1-gp_consent-section_transfers-rpt_trans.dta
tchad_ie follow-up 1-gp_rainkeycond-rpt_rcrops.dta
tchad_ie follow-up 1_deid.dta

Computational requirements

Software requirements   The paper exhibits were generated with Stata version 17. Required packages are included in the ado path folder and should be loaded with the `ieboilstart` command included in the main dofile.

Memory, Runtime, Storage Requirements   Approximate time needed to reproduce the analyses on a standard (2024) desktop machine: 110 minutes. The code was last run on a **8 cores Intel-based (i7-10870H CPU @ 2.20GHz) laptop with Windows 10 Home (version 22H2)**. Approximate storage space needed: 2.2 GB.

Software Requirements

- Stata (code was last run with version 15)
- Excel

The `ieboilstart` command is included in the master script. The replication package contains one script `00_programs.do` to install all stata packages and user-written programs. Excel is used only once by a stata script through a vbs script for the computation of the internal rate of return ('IRR' excel function) during the cost-benefit analysis. See below how to enable Trust Access to the VBA Project Object Model. 1. Open Excel. 2. Go to File > Options > Trust Center > Trust Center Settings. 3. In the Trust Center window, select Macro Settings. 4. Check the box for Trust access to the VBA project object model. 5. Click OK to save and close the settings.

Code Description

- The code in `Analysis/Do/MASTER_CHAD.do` is the master script. It calls every other scripts.

- The script `Analysis/Do/00_globals` sets the project working directory and globals for the project.
- The script `Analysis/Do/00_programs` installs stata ssc packages and stata user-build packages required for the project.
- The scripts in folder in `Analysis/Do/00_programs` are all personnal programs used. They are defined by the master program script `Analysis/do/00_programs.do`.
- The scripts in folder in `Analysis/Do/01_prepare` prepare the raw survey data for each phase. They are called by the master cleaning script `Analysis/do/01_prepare.do`.
- The scripts in folder in `Analysis/Do/02_cleaning` clean and constructs outcomes for each phase. They are called by the master cleaning script `Analysis/do/02_cleaning.do`.
- The script `Analysis/Do/03_construct.do` combines each data section of the survey into one dataset for each phase.
- The script `Analysis/Do/04_merge_phases.do` combines the datasets from the two phases.
- The script `Analysis/Do/05_regs.do` generates the regression tables. The generated outputs are in `Analysis/Output/tables/Followup` folder.
- The script `Analysis/Do/06_balance_and_attrition.do` generates the balance tables. The generated outputs are in `Analysis/Output/tables/Other` folder.
- The script `Analysis/Do/07_cba.do` generates the cost-benefit analysis table. The generated outputs are in `Analysis/Output/tables/Other` folder.

Instructions

This reproducibility package contains the code necessary to replicate all the results in the paper. To do so, follow the instructions below.

1. **Download the replication folder**

2. **Open the `MASTER_CHAD.do` script** in the `Analysis/Do` folder.

3. **Set global macro path 'dir_package' line 22** where you saved the reproducibility folder.

4. **Run the `MASTER_CHAD.do` script to generate the outputs**. Outputs are saved in `Analysis/output` folder.

If running programs individually, note that order is important.

List of Outputs generated by the code

To facilitate the replication process, we have included `tables.tex` (which contains all the tables) along with the corresponding PDF in the `Analysis/Output` folder.

Main Tables

Figure/Table	Program	Output file	Note
Table 1	Analysis/Do/06_balance_and_attrition.do	balance_1.tex	
Table 2	Analysis/Do/05_regs.do	outcome_table_prim1_hh_t1.tex	
Table 3	Analysis/Do/05_regs.do	outcome_table_prim3_ben_t1.tex	
Table 4	Analysis/Do/05_regs.do	outcome_table_prim4_ben_t1.tex	
Table 5	Analysis/Do/05_regs.do	outcome_table_prim6_ben_t1.tex	
Table 6	Analysis/Do/05_regs.do	outcome_table_prim2_beno_t1.tex	
Table 7	Analysis/Do/05_regs.do	outcome_table_prim1_hh_t2.tex	
Table 8	Analysis/Do/05_regs.do	outcome_table_prim3_ben_t2.tex	
Table 9	Analysis/Do/05_regs.do	outcome_table_prim4_ben_t2.tex	
Table 10	Analysis/Do/05_regs.do	outcome_table_prim6_ben_t2.tex	
Table 11	Analysis/Do/05_regs.do	outcome_table_prim2_beno_t2.tex	
Table 12	Analysis/Do/07_cba.do	table_cba.tex	use excel with vbs script

Appendix

Figure/Table	Program	Output file	Note
Table A1	Analysis/Do/06_balance_and_attrition.do	balance_3.tex	
Table A2	Analysis/Do/05_regs.do	outcome_table_scnd5_t1.tex	
Table A3	Analysis/Do/05_regs.do	outcome_table_scnd6_t1.tex	
Table A4	Analysis/Do/05_regs.do	outcome_table_prim5_ben_t1.tex	
Table A5	Analysis/Do/05_regs.do	outcome_table_scnd5_t2.tex	
Table A6	Analysis/Do/05_regs.do	outcome_table_scnd6_t2.tex	
Table A7	Analysis/Do/05_regs.do	outcome_table_prim5_ben_t2.tex	
Table A8	Analysis/Do/05_regs.do	outcome_table_prim1_hh_t3.tex	
Table A9	Analysis/Do/05_regs.do	outcome_table_scnd5_t3.tex	
Table A10	Analysis/Do/05_regs.do	outcome_table_supp_10_t1.tex	
Table A11	Analysis/Do/05_regs.do	outcome_table_prim3_ben_t3.tex	
Table A12	Analysis/Do/05_regs.do	outcome_table_prim4_ben_t3.tex	
Table A13	Analysis/Do/05_regs.do	outcome_table_prim6_ben_t3.tex	
Table A14	Analysis/Do/05_regs.do	outcome_table_supp_37_t1.tex	
Table A15	Analysis/Do/05_regs.do	outcome_table_supp_35_t1.tex	

Figure/Table	Program	Output file	Note
Table A16	`Analysis/Do/05_regs.do`	`outcome_table_supp_31_t1.tex`	
Table A17	`Analysis/Do/05_regs.do`	`outcome_table_supp_30_t1.tex`	
Table A18	`Analysis/Do/05_regs.do`	`outcome_table_supp_32_t1.tex`	
Table A19	`Analysis/Do/05_regs.do`	`outcome_table_supp_34_t1.tex`	
Table A20	`Analysis/Do/05_regs.do`	`outcome_table_supp_33_t1.tex`	
Table A21	`Analysis/Do/05_regs.do`	`outcome_table_supp_27_t1.tex`	
Table A22	`Analysis/Do/05_regs.do`	`outcome_table_supp_28_t1.tex`	
Table A23	`Analysis/Do/05_regs.do`	`outcome_table_supp_29_t1.tex`	

Contacts

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