

README for the Reproducibility Package for Uganda's Pioneer Refugee Model: Advances in Inclusion, Self-Reliance, and Pathways Forward

Overview

The following document provides the necessary information regarding the data processing methods used to calculate the figures included in the report “Uganda's Pioneer Refugee Model: Advances in Inclusion, Self-Reliance, and Pathways Forward.” The reproducibility package folder contains the following materials:

- Excel files
- ArcGIS file

Data Availability Statement

Dataset/Document Name	File Name(s)	Link/Access Instructions	Access Date	Data Access
UNHCR Refugee Population Statistics Database	Refugee population stats.xlsx	The “Data” folder within the “Excel files” folder contains all the datasets used for this paper, downloaded from the original source: https://www.unhcr.org/refugee-statistics/download?v2url=e7088f	August 2025	Open
Refugees and Asylum Seekers by country of origin	Refugees by country of origin.xlsx	The “Data” folder within the “Excel files” folder contains all the datasets used for this paper, downloaded from the original source: https://data.unhcr.org/en/country/uganda	October 2025	Open
Refugees and Asylum Seekers by district	Host population by refugee-hosting district.xlsx	The “Data” folder within the “Excel files” folder contains all the datasets used for this paper, downloaded from the original source: https://data.unhcr.org/en/country/uganda	August 2025	Open
Host Population by district	Distribution of host population by refugee-hosting district.xlsx	The “Data” folder within the “Excel files” folder contains all the datasets used for this paper, downloaded from the original source: https://data.unhcr.org/en/country/uganda	August 2025	Open
Uganda - Lakes	ugandalakes	Downloaded from: https://geoportal.icpac.net/geoserver/ows?service=WFS&version=1.0.0&request=GetFeature&typename=geonode%3Auga_water_areas_dcw&outputFormat=SHAPE-ZIP&srs=EPSG%3A4326&format_options=charset%3AUTF-8	September 2025	Open
Africa shapefiles - Admin Level 0	Africa_Boundaries	Downloaded from: https://open.africa/dataset/africa-shapefiles/resource/dcdadd25-0137-4c93-ae5a-82b39d424d60	September 2025	Open
Uganda - Subnational Administrative Boundaries - uga_admin_boundaries.gdb.zip	Uganda Districts-wgs84	Downloaded from: https://data.humdata.org/dataset/cod-ab-uga	September	Open

Uganda - Refugee Statistics September 2025	Districts hosting refugee	Excel data table generated from https://data.unhcr.org/en/documents/details/118931	September 2025	Open
National Population and Housing Census 2024 – Final Report – Volume I (Main)	None refugee hosting	This list was constructed from “National Population and Housing Census 2024 – Final Report – Volume I (Main)” and excluded refugee-hosting districts: https://www.ubos.org/wp-content/uploads/2024/12/National-Population-and-Housing-Census-2024-Final-Report-Volume-1-Main.pdf	September 2025	Open
Uganda Refugee Emergency Situation Report 5 –	Transit Centers	The list of main transit centers and their locations within districts was curated from published work in the document “Uganda Refugee Emergency Situation Report” available at: https://data.unhcr.org/es/documents/download/94971	September 2025	Open
DWRAP Data 1951-2022 Combined: All countries and years	dwrap_index.dta	The “datasets” folder within the “Stata files” folder contains all the datasets used for this paper, downloaded from the original source: https://datacatalog.worldbank.org/search/dataset/0066171/Dataset-of-World-Refugee-and-Asylum-Policies--DWRAP-	January 2026	Open

Statement about Rights

I certify that the author(s) of the manuscript have legitimate access to and permission to use the data used in this manuscript.

I certify that the author(s) of the manuscript have documented permission to redistribute/publish the data contained within this replication package. Appropriate permissions are documented in the LICENSE.txt file.

Instructions for Replicators

Main paper

Excel files

To utilize the complete package, it is necessary to have access to the data and contents specified in the "Excel files" folder, and the "Stata files" folder. Below, I provide guidance on how each Figure was created:

- Figure 1. Line trend of refugee population hosted in Uganda from 1960 – 2025, created using data from UNHCR Refugee Population Statistics Database. The graph was generated from the filtered file ‘Refugee population stats.xlsx’ (see the links in table above). The Excel sheet is raw data downloaded from the original source: <https://www.unhcr.org/refugee-statistics/download?v2url=e7088f> and no cleaning or transformations were applied.
- Figure 2. A bar graph showing the share of refugees by country of origin, calculated as the number of refugees from each country divided by the total refugee population in Uganda as of October 2025. The Excel sheet is raw data downloaded from the original source: <https://data.unhcr.org/en/country/uga> and no cleaning or transformations were applied.

- Figure 4. A bar graph showing the distribution of host population across refugee-hosting districts, calculated by dividing the host population of each district by the total host population across all refugee-hosting districts and multiplying by 100. The Excel sheet is raw data downloaded from the original source: <https://data.unhcr.org/en/country/uga> and no cleaning or transformations were applied.

ArcGIS Map

- Figure 3. For the map, include as layers the following;
- shape files: from Humanitarian Data Exchange, Uganda Bureau of Statistics, Open Africa, Operational Data Portal
 "unhcr_refugees.shp", "Uganda Districts-wgs84", and "Africa_Boundaries", and "Uganda_Lakes.shp".
 Data tables were generated from sources shown in the table
 "Districts hosting refugees from Uganda - Refugee Statistics September 2025", "Transit Centers from Uganda Refugee Emergency Situation Report 5 –", and "none refugee hosting from National Population and Housing Census 2024 – Final Report – Volume I (Main)"
 Data tables were uploaded as .csv files, and joined to polygons from shp files. This resulted columns of numerical data against polygons.

 Visualization was done by opening layer properties - Symbology"
 - graduated symbology, select the field "refugee population" for classification, apply 5 classes using sequential color ramp (light to dark blue)
 - repeat the symbology to point out locations of transit center and refugee settlement using a symbol of a house and a triangle for uniform Dot density
 Insert a map layout to which you insert the map frame of Uganda and the Africa map frame. Insert map properties of legend, scale, and compass. Fit each of the map properties appropriately.
 To export the map, share - export layout - select export presets of Web JPEG

Annex

Stata files

1.The “Stata files” folder contains three sub-folders: data, code, and outputs.

The “code” folder includes 1 do-file: **DWRAP.do**

To replicate the results, update the project path in **DWRAP.do** to match your local working directory to run the do-file from start to finish.

2. Data preparation

- a) The do-file reads in the raw dataset “dwrap_index.dta” from the data/raw directory
- b) Country names are harmonized to ensure consistency (Turkiye is recorded as Turkey) and the year variable is converted to numeric format. The data are then sorted by country and year.
- c) For each policy domain; access, services, livelihood, movement, and participation – composite scores are generated by taking the row mean of the corresponding ICW and PCF indicators.
- d) The intermediate dataset with generated scores is saved as intermediate in the data/intermediate
- e) Bar graphs are produced for each domain as five country comparisons and Uganda compared to the rest of the world