

# Trilateral Research: Developing Human Security Datasets

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## Overview of the Data Fellowship

Trilateral Research is a UK and IE-based enterprise, founded in 2004. They provide regulatory and policy advice; develop new data-driven technologies and contribute to the latest standards in safeguarding privacy, ethics and human rights within the public and private sector. I worked with them for 2 months to support their building of a cloud-based application for human security analysis.

## Data Analysis

- I worked on Trilateral Research's project on collecting data regarding human security. The work entailed two broad categories of tasks. Firstly, we were trying to understand the data landscape of humanitarian data. This is done by manually searching for open datasets relating to human security. Using Excel, I focused on building a data record of the available datasets, including details of licensing, accessibility, formats, frequency of updates, geographic scope, admin level granularity, thematic relevance etc.
- Secondly, I worked on downloading and cleaning all available data for priority areas of interest. This is done so that all the data can be processed in a uniform way that can then be used by the data science team to feed into Trilateral's own analysis tools.
- I also assisted on another Trilateral project - Project Honey-

Platform	dataset_name	original_source	Notes
HDX	<a href="#">Mozambique: Cyclone Idai Key Figures and Situation Reports Data</a>	<a href="#">OCHA Mozambique HAT</a>	This dataset contains key figures and other data pertaining to the evolving humanitarian situation in during the Tropical Cyclone Idai response in Mozambique.
HDX	<a href="#">UNOSAT Geospatial Data on Floods in Mozambique - March 2019</a>	<a href="#">UN Operational Satellite Applications Programme</a>	This data illustrates the satellite detected surface waters in Manica, Sofala, and Tete Provinces in Mozambique, as observed from Sentinel-1 imagery acquired on 13, 14, 19 and 20 March 2019.
HDX	<a href="#">Cyclone Kenneth: Population Exposure Analysis in Mozambique - 23 April 2019</a>	<a href="#">UN Operational Satellite Applications Programme</a>	Based on data of the expected tropical cyclone path Twenty-four-19, wind speed zones from Joint Research Centre (Issued on 23 April 2019 06:00 UTC), and population data from WorldPop 2015, UNITAR-UNOSAT conducted a population exposure analysis for Mozambique
HDX	<a href="#">Mozambique: High Resolution Population Density Maps + Demographic Estimates</a>	<a href="#">Facebook</a>	Seven maps/datasets for the distribution of various populations in Mozambique: (1) Overall population density (2) Women (3) Men (4) Children (ages 0-5) (5) Youth (ages 15-24) (6) Elderly (ages 60+) (7) Women of reproductive age (ages 15-49).
HDX	<a href="#">Mozambique Displacement Data - Baseline Assessment - Idai - [IOM DTM]</a>	<a href="#">International Organization for Migration</a>	This dataset contains DTM assessments containing number of affected people, their needs, geographic locations etc during Tropical cyclone Idai, on March 15th 2019
HDX	<a href="#">Mozambique, Road Access Constraints, Cyclones Idai and Kenneth Response</a>	<a href="#">WFP - World Food Programme</a>	This dataset is based on an extraction of OpenStreetMap.
HDX	<a href="#">GRID3 Mozambique Settlement Extents Version 01, Alpha</a>	<a href="#">GRID3 [Geo-Referenced Infrastructure and Data]</a>	GRID3 works with countries to generate, validate and use geospatial data on population, settlements, infrastructure, and subnational boundaries.

*Excerpt from Excel data catalogue*

comb. This project looks into issues of human trafficking and modern slavery and is trying to develop possible solutions to combat these issues. My tasks included assessing existing secondary data sources and recording its metadata, manually recording the coordinates of hotspots in Manchester which could



Word Cloud created in NVivo from text analysis of survivor stories

be key locations for traffickers and victims, and running text analysis on survivor stories from around the world using NVivo.

## Findings

- HDX is a great source of data for many indicators regarding humanitarian issues. However, it is important to be aware of the time and context of the data collection, the methods used to collect such data and the compatibility of formats for use within internal analysis tools.
- Understanding the themes that emerge from the stories of previous survivors of trafficking could potentially provide answers into where to look for signs and hotspots of trafficking.

## Key Skills Learnt

- Increased familiarity with a wide range of data formats such as CSV, JSON, GEOJSON, TIFF Files, Shapefiles, KMZ etc.
- Increased confidence in my ability to identify relevant data sources, assess its quality and reliability and record it in the appropriate formats
- Better understanding of a professional environment. The internship has not only helped me improve my time and project management skills, but also showed me the importance of effectively communicating expected timelines to coworkers so that work continues in a smooth fashion.
- Thinking creatively about potential ways to find answers to complicated questions. This has been a really important takeaway that I hope to utilise in my future research!