SOMALIA MOVEMENT PROJECTIONS ANALYSIS OVERVIEW SHEET

IOM UN MIGRATION | GLOBAL DATA INSTITUTE DISPLACEMENT TRACKING MATRIX

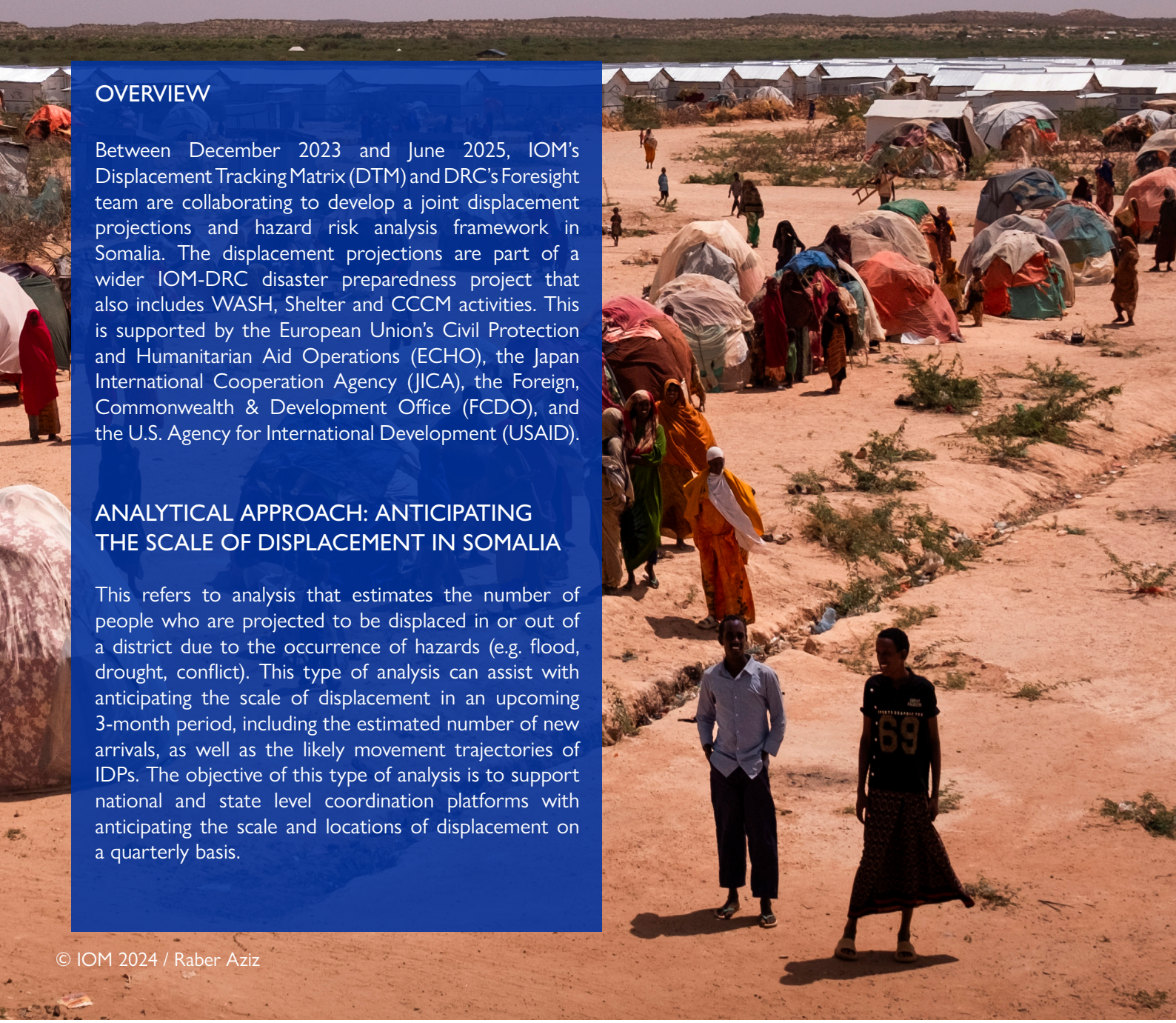
DANISH REFUGEE COUNCIL

OVERVIEW

Between December 2023 and June 2025, IOM's Displacement Tracking Matrix (DTM) and DRC's Foresight team are collaborating to develop a joint displacement projections and hazard risk analysis framework in Somalia. The displacement projections are part of a wider IOM-DRC disaster preparedness project that also includes WASH, Shelter and CCCM activities. This is supported by the European Union's Civil Protection and Humanitarian Aid Operations (ECHO), the Japan International Cooperation Agency (JICA), the Foreign, Commonwealth & Development Office (FCDO), and the U.S. Agency for International Development (USAID).

ANALYTICAL APPROACH: ANTICIPATING THE SCALE OF DISPLACEMENT IN SOMALIA

This refers to analysis that estimates the number of people who are projected to be displaced in or out of a district due to the occurrence of hazards (e.g. flood, drought, conflict). This type of analysis can assist with anticipating the scale of displacement in an upcoming 3-month period, including the estimated number of new arrivals, as well as the likely movement trajectories of IDPs. The objective of this type of analysis is to support national and state level coordination platforms with anticipating the scale and locations of displacement on a quarterly basis.



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SUMMARY

This dashboard is the result of the IOM's Displacement Tracking Matrix (DTM) and DRC's Foresight team collaboration in developing a joint movement projections framework in Somalia. The displacement projections and risk analysis activities are part of a wider IOM-DRC disaster preparedness project that also includes protection, WASH, shelter and CCCM activities. This is supported by the European Union's Civil Protection and Humanitarian Aid Operations (ECHO), JICA, FCDO and USAID.

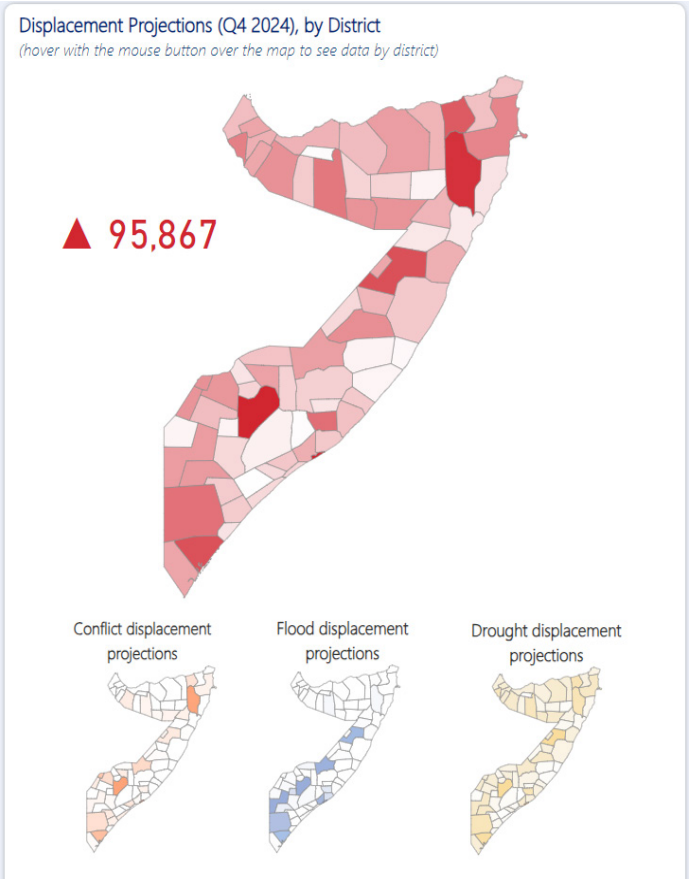
SCOPE

In Somalia there is a growing need to anticipate different displacement scenarios, to inform strategic and operational planning in the humanitarian response. In a fast-moving crisis like Somalia, with the many factors that influence movements, it is not possible to predict the precise displacements or returns of the future. However, it is possible to estimate the likely impacts of different individual factors – drought, flood, and conflict – on movements should they occur. This projections model is based on breaking down these individual factors and their likely impact on movements to estimate the scale of displacement across districts. These individual factors, and their impact on movements based on their severity and location, are included in the calculations to determine projected displacement scenarios.

Through the results and findings of the multi-hazard displacement projections and displacement dynamics analysis, this dashboard can assist with anticipating the scale of displacement in an upcoming 3-month period (which are weather season based), including the estimated overall IDP stock figure at country and district level, and the number of new displacements.

The objective is to support national and state level coordination platforms with anticipating the scale and locations of displacement, to understand the number of people who are likely to be affected by an upcoming hazard, and to provide evidence to inform more localized operational planning.

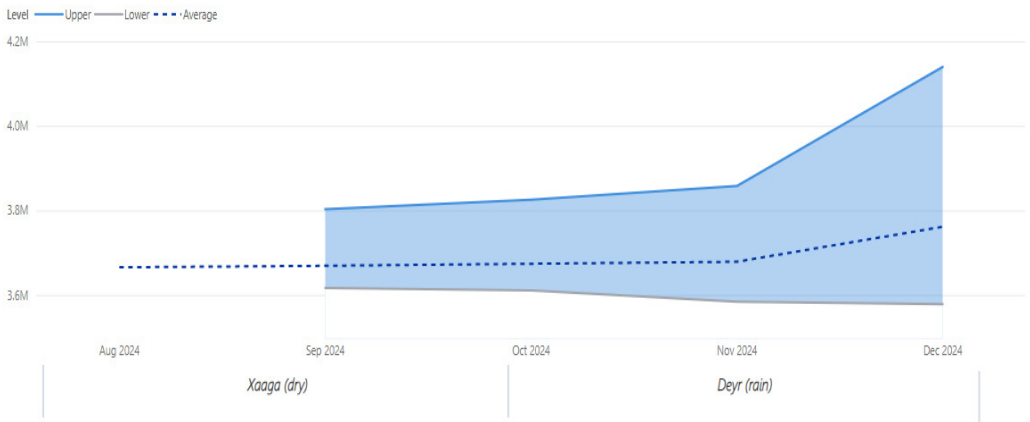
LINK TO THE DASHBOARD



Baseline IDP Figures and Displacement Projections (Q4 2024)

Current IDP Stock (31 August 2024)		Displacement Projections (September to December 2024)				
District	Baseline	IDP stock	Overall change	Conflict change	Flood change	Drought change
Kismaayo	177,339	180,983	3,644	1,063	-1,310	3,892
Gaalkacyo	118,818	122,507	3,689	402	-1,026	4,313
Belet Weyne	154,167	155,427	1,260	632	-712	1,340
Baydhaba	738,462	744,284	5,822	1,990	-546	4,377
Baardheere	44,964	46,310	1,346	226	-538	1,658
Banadir	1,089,777	1,107,297	17,520	5,775	-464	12,209
Afgooye	58,759	59,683	924	166	-442	1,200
Afmadow	67,627	70,284	2,657	554	-382	2,485
Balcad	21,508	22,129	621	45	-185	761
Qansax Dheere	29,088	29,222	134	83	-181	231
Jowhar	38,250	40,997	2,747	279	-137	2,605
Saakow	8,469	9,869	1,400	-159	-94	1,653
Burco	130,869	133,309	2,440	249	-45	2,235
Ceel Barde	20,557	21,241	684	132	-42	593
Qardho	18,984	23,602	4,618	1,912	-38	2,744
Diinsoor	25,152	25,606	454	171	-31	314
Garbahaarey	10,014	10,770	756	74	-28	711
Buur Hakaba	4,005	4,169	164	53	-27	139

Projected displacements ▲ 95,867

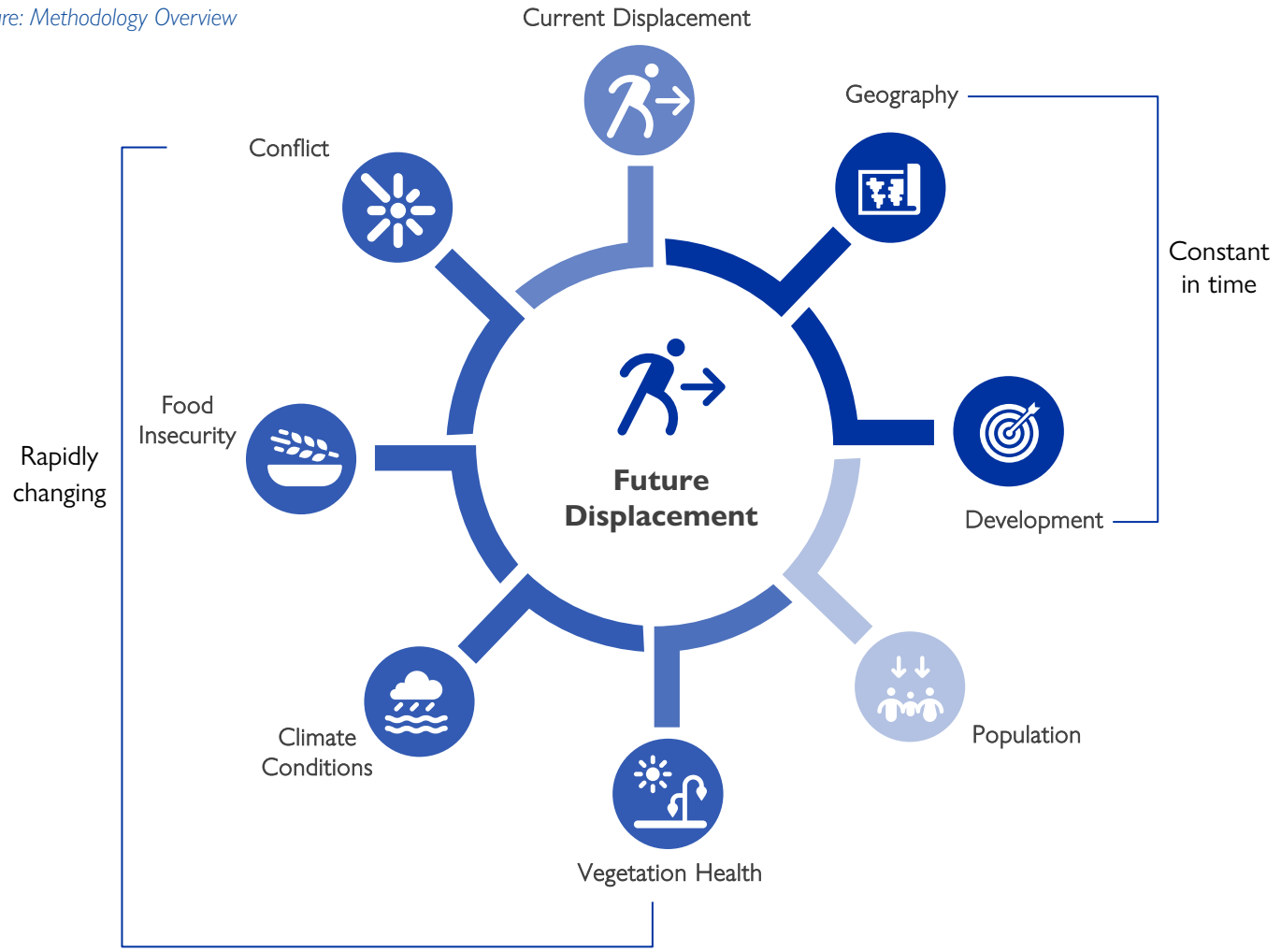


METHODOLOGY

The projections for subnational displacement are calculated from matching historical displacement trends to a number of indicator variables (on conflict, climate, etc.) and using that relationship to project what will happen going forward.

The basis of this is an assumption of a similar relationship in the future, which means that given a detailed scenario for the indicators in the immediate future, a projection of the displacement can be found.

Figure: Methodology Overview



The relationship between displacements and the historical indicators is established using a statistical model. Where projections in the past have focused on historical developments in each individual district without looking to other districts, the model assumes that close-lying districts will have responses of similar proportions to similar indicators.

To project into the future, a most-likely-scenario is developed based on two seasonal predictions. The ACLED CAST-model provides a forecast of the conflict related events and the North American Multi-Model Ensemble project provides a seasonal outlook on climate. These are converted to the relevant scales for the model and used as the most-likely scenario three months into the future.

The model calculates a projection of the IDP stock in each month. It does so by combining data on historical stocks from DTM's Baseline database and new displacements from the UNHCR's PRMN database. Not all new displacements are turned into stock figures. Returns and other factors make it so that the stock figure is not simply adding up all historical data from PRMN, but there is a relationship between the two datasets and the model incorporates the displacements from the PRMN.

Causes of displacement are recorded in both the IOM and PRMN data, meaning the model is separated into two outcomes: conflict-related and climate-related displacement. The outcomes are added together at the end to provide the combined projection. Climate-related displacement in Somalia is an intermittent phenomenon, where at times the country experiences almost none, depending on the climactic conditions.

The projections are only estimates and contain uncertainty bounds on the future projections. These are determined as the lower 10 per cent and upper 90 per cent bounds on the projections, and so events happening outside of these should only occur 20 per cent of the time. This relies on the conflict and climate scenarios being more or less correct. In the case of serious deviances from those, the model is rendered less reliable.

DATA SOURCES

The historical indicators are found from a variety of sources. Some are rapidly changing in the time scale of the projections, which is in months, such as violent events or precipitation, whereas others, like geography of the subnational division of Somalia, do not change over time.

Below is the list of the main indicators and the source of the datasets used.

Figure: Data Sources Used for Movement Projection Analysis

Theme	Indicator (all per district)	Source
Climatic Conditions	3-month rolling precipitation anomaly	Early Warning eXplorer
	12-month rolling precipitation anomaly	Early Warning eXplorer
	Seasonal forecasts (precipitation and temperature)	ICPAC
	Flood prone areas	FAO SWALIM
Conflict	Violent events per month	ACLED
Conflict	Average violent events per month in neighbouring districts	ACLED
Displacement	Number of IDPs (stocks)	IOM DTM
	Displacement flows	UNHCR PRMN
Food Insecurity	Share of population in Food Insecurity phase 3+	IPC
Vegetation Health	Vegetation Health Index	FAO