

DTM API

Making global data on internal displacement accessible and reliable

The Displacement Tracking Matrix application programming interface (API) accelerates secure sharing of data on internal displacement, simplifying access to data across users and partners to support action, insight and foresight.



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Overview

To simplify and modernize the data-sharing platform for IDPs, DTM has created a publicly accessible API. This API allows the humanitarian community, academia, media, government, and non-governmental organizations to utilize the data collected by DTM. The DTM API only provides non-sensitive IDP figures, aggregated at the country, Admin 1 (states, provinces, or equivalent), and Admin 2 (smaller subnational administrative areas) levels.

Scope and Data Availability Level

The DTM API shares data stored at the country, Admin 1 (states, provinces or equivalent) and Admin 2 (smaller subnational administrative areas) levels. Greater detail and disaggregation is available in other formats, while the API streamlines data sharing with a focus on simplicity and security to share relevant data with the public.

DTM API Toolkit

The following tools can assist you while using the API by providing data coverage and making the API call seamless and easy

- Data Coverage Matrix**
Provides data scope, coverage and level of availability.
- API Query Builder**
Assists in constructing API parameters and calls

[Explore these tools](#)

DTM Assessment Types

Data from two of DTM's components are included in the API - baseline assessments and multi-sectoral location assessments. A baseline assessment gauges population presence in an administrative area, as well as identifying sub-areas for further assessment such as camps and camp-like settings, or villages and neighbourhoods. Data from these assessments cover sudden onset disasters and share key information on displacement in different contexts. More detailed data are available through the multi-sectoral location assessment, which addresses living conditions and needs of populations in locations identified through the baseline assessments. More information on DTM components is available in the Methodological Framework.

Frequency

DTM gathers data across all stages of a humanitarian response, from the immediate emergency phase to the pathway toward durable solutions to displacement. Throughout these phases and the transitions between them, data gathering is carried out in rounds deployed with different frequencies depending on the needs of each context - some yearly, quarterly, or more often. This API shares data that show revelatory snapshots of a displacement situation captured at each round.

Metadata

You can use the metadata listed below to understand data shared via the API. Each of the variables used in the API are described in the table

PARAMETER VARIABLES	RESPONSE VARIABLES
API_field_name	field_name_label
Operation	Operation name
CountryName	Country name
admin0Pcode	Country code (ISO 3166-1 alpha-3)
NumPresentIdplnd	Number of IDP Individuals
ReportingDate	fromDate: Data reporting starting date/snapshot date toDate: Data reporting starting date/snapshot date
RoundNumber	Data collection round number

Available API Endpoints

The API provides three endpoints at three different Administrative Boundary levels: Global IDP Data Country Level, Global IDP Data at Admin 1 Level and Global IDP Data at Admin 2 Level.

- COUNTRY LEVEL IDP**
- GLOBAL IDP DATA AT ADMIN 1 LEVEL
- GLOBAL IDP DATA AT ADMIN 2 LEVEL

Global IDP Data Country Level

This level will return information aggregated at country level to provide a broad snapshot of displacement dynamics.

```
POST https://dtmapi.iom.int/api/IdpAdmin0Data/GetAdmin0Data
```

Validation Rules

Request Field	Type	Value	Business Rule	Validation Message
CountryName	string	Text	If country name is not present in country master. If country name is blank and round number is not blank	Kindly provide correct country name Kindly provide correct country name along with round number
Operation	string	Text	If operation name is not present in operation master.	Kindly provide correct operation
Admin0Pcode	string	Text		Kindly provide correct ISO Country Code
ReportingDate				
From Date	string	Text	If From date is not in yyyy-mm-dd format	Kindly provide fromDate in yyyy-mm-dd format in ReportingDate
To Date	string	Text	If From date is not in yyyy-mm-dd format	Kindly provide fromDate in yyyy-mm-dd format in ReportingDate
ReportMonthRange				
MonthFrom - Year	Integer	Number	If Year is more than 4 digit	Kindly provide valid year, Year must be 4 digit
MonthFrom - Month	string	Text	If Quarter is not having value Q1,Q2,Q3,Q4	In ReportMonthRange, Kindly provide valid Monthin MonthFrom
MonthTo - Year	integer	Number	If Year is more than 4 digit	Kindly provide valid year, Year must be 4 digit
MonthTo - Month	integer	Text	If Month is not between 1 & 12	In ReportQMonthRange, Kindly provide valid Month in MonthTo
Round Number				
From	Integer	Number	If round number having value less than 0	Kindly provide valid round number in From
To	Integer	Number	If round number having value less than 0	Kindly provide valid round number in To

Sample Request Header

```
{  "operation": "",  "countryName": "Afghanistan",  "admin0Pcode": "",  "reportingDate": {    "fromDate": "2018-12-31",    "toDate": null  },  "reportMonthRange": {    "monthFrom": {      "year": 2000,      "month": "1"    }  }}
```

Response Body

The response body will return the following information:

Response Field	Data type/ expected value	Description
ID	BigInt	
Operation	String	
Admin0Name	String	Country Name
Admin0Pcode	String (ISO3)	Country code
NumPresentIdplnd	Int	Number of IDPs in selected country
ReportingDate	Datetime - yyyy-mm-dd	Number of IDPs in selected country
Year	Int	Year - YYYY
Month	Int	Month - MM
RoundNumber	Int	Internal collection round number
Assessment Type	String	BA - Baseline Assessment SA - Site Assessment

Definitions:

Internally displaced persons (IDPs): Persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized State border [Guiding Principles on Internal Displacement, UN Doc E/CN.4/1998/53/Add.2.] (IOM, 2016). Returnee: any person who was displaced internally or across an international border, but has since returned to his/her place of habitual residence (IOM, 2004).