DTM Methodological Framework

For Quantifying Displacement and Mobility in Displacement Tracking Matrix Operations

IOM - Displacement Tracking Matrix

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Preface

This is an online version of the 2022 DTM Methodological Framework

The purpose of this online version is to demonstrate how the 2022 version looks as an online document, in preparation for the drafting of the third version of the methodology.

The online version omits the charts and tables from the original source material, and may include some transcription errors.

Contact

If you have any questions of feedback about this online version or the source pdf, contact dtmsupportservices@iom.int or visit the DTM website

1 Historical background and revision

The original version of the Methodological Framework used in Displacement Tracking Operations for Quantifying Displacement and Mobility (MFQDM) was published on December 5th 2017. It was used widely, both nationally and in regional operations, to develop DTM methodologies responsive to information requirements on displacement and mobility. Methodological developments in country missions have revealed the need for updating the MFQDM.

The 2022 update reflects latest methodological improvements as well as changes of terminology implemented to facilitate common understanding and coordination with an increasing range of stakeholders. In the MFQDM 2nd edition, sections 2, 6, 7, 8 and 10 remain relatively unchanged, whereas section 9 has been largely expanded which reflects an increased in available published DTM Standards for DTM[1] systems, outputs and operations as well as protocols for sharing sensitive information. *Section 1 – 'Historical background and revision'* was not in the original version and is new.

Section 4 includes an important update on terminology. DTM tools within the Mobility Tracking component, previously recognized as baseline location assessment and site assessment have been increasingly implemented in a diversity of geographical units. To reflect this change designation was changed to Baseline Sub-Area Assessment (previously Baseline Location Assessment) and Multi-Sectoral Location Assessments (previously Site Assessment) to acknowledge the multi-sector nature of the assessments.

Section 5 reflects the changes in terminology mentioned above to Mobility Tracking tools and aligns minimum fields for data collection in Registration with the DTM data dictionary (for more information on the Data Dictionary, please see Section 7). Within the more detailed table on registration (section 5.3) there are minor changes, including the reference to cash assistance as the programmatic area supported by registration. The Points of Entry (PoE) monitoring has also been added which was developed and scaled throughout the COVID-19 pandemic (section 5.2.4).

[1]DTM Standards include: Artificial Intelligence (AI), data science & ethics, Data analysis planning, Data archiving, recovery & destruction, Data design and collection, Data protection & privacy, Data sharing, Data visualisation, Geospatial information, Internal data consolidation, Partnerships & external relationships, Monitoring & evaluation, Project management, Reporting & publication, Sampling and Training & internal capacity building.

2 Introduction

The Displacement Tracking Matrix (DTM) is a system to gather and analyse data to disseminate critical multi layered information on the mobility, vulnerabilities, and needs of displaced and mobile populations that enables decision makers and responders to provide these populations with better context specific assistance.. DTM was first conceptualized in 2004 to monitor internal displacement in Iraq and has since been adapted for implementation in over 80 countries, including in contexts of conflict, climate change, disaster, complex emergencies and protracted crises.

DTM is used across various stages of a humanitarian response – commonly during the emergency phase to inform planning and assistance and to inform preparedness activities or transition and recovery programming. Implementation may support a cluster or another stakeholder with targeted information needs or may be intended to contribute to common services and coordination more broadly. In other cases, it may be designed to support host governments to apply methods and tools tested during previous crises.

DTM's effectiveness in meeting varying objectives in a diverse range of contexts relies on its ability to maintain a lightweight, flexible and modular structure, enabling quick adjustments and adaptation. To preserve operational flexibility, while promoting quality and coherence across DTM activities, this Framework outlines various components, tools and methods that have proven effective for quantifying displacement and mobility in DTM operations worldwide. As global displacement continues to evolve, the scope of DTM's work has expanded from emergency contexts to increasingly protracted and fragile contexts. To adequately respond to such information needs, DTM has developed new tools and methodologies under the Solutions and Mobility Index.[1]

DTM is a collaborative mechanism. Partnerships and participation on key inter-agency and multi-stakeholder initiatives on data at strategic and technical level ensure the relevance and alignment of DTM's methods, tools and processes to global standards and best practices. This includes its links and contributions to the International Recommendations on IDP Statistics (IRIS), Joint Inter-sectoral Analysis Framework (JIAF), IASC Operational Guidance on Data Responsibility in Humanitarian Action, and other relevant frameworks.

Given the complex and dynamic nature of many contexts where DTM is deployed, tailoring an appropriate approach can be challenging and requires an understanding of the characteristics, advantages and limitations of available components, methods and tools. Though flexibility and

[1]For more information on DTM's Solutions and Mobility Index visit dtm.iom.int/solutions

adaptation are encouraged, certain standards and obligations apply regardless of the method or approach selected. The sections below aim to capture good practices from past operations, presenting the framework within which DTM exercises are designed; the process for selecting and combining components, methods and tools to meet specific objectives; considerations for evaluating and mitigating limitations and risks; and guidance to ensure key principles are upheld.

3 Objectives and principles

3.1 Objectives

The overall aim of the DTM Methodological Framework is to provide guidance on the selection process, expected results and limitations associated with various components, tools and methods used by DTM for quantification of displacement and mobility.

3.2 Principles

This Framework has been developed with the following core principles in mind:

1. The Methodological Framework 2nd Edition promotes a flexible approach to through the inclusion of various components, tools and methods, subject to minimum DTM standards, that can be combined or substituted as needed to tailor DTM implementation to a wide range of contexts. Local innovation and adaptation are encouraged, and have proven highly beneficial in past DTM operations, helping to ensure relevance, local ownership and buy-in, and use of data.
2. The Framework aims to ensure the data produced through DTM is operational and actionable, through informed selection of components, tools and methods that respond to the objectives and characteristics of a specific context and data needs.
3. Data produced through DTM implementation when possible should be open source, commonly structured1 and public to the extent that data protection, do no harm and confidentiality considerations allow2 – i.e. information that is valuable to assist persons in need but at the same time considered sensitive for them if made public, will only be shared under specific protocols.

To facilitate responsible data sharing and use, Section 6 of this Framework includes recommendations for risk assessment and mitigation, and Section 8 provides an overview of data governance responsibilities and guidance for data classification and indicator selection. In addition, IOM DTM adheres to OCHA's Sensitivity Classification guidelines when sharing data.

4. Neutrality should remain core to the implementation of activities and publishing of results under this Framework. All components, tools and methods should produce data with the minimum bias possible. When feasible, an indication of confidence levels for different data records should be considered for analysis. Data suitable for public use (as per point 3 above) should be presented in a manner that allows for, and made available for, independent analysis and interpretation by external stakeholders.

5. Regardless of the component, tools or methods selected, protection should be mainstreamed as a core consideration throughout the design and implementation of DTM exercises, building on partnerships with specialized actors and leveraging results to trigger protection activities when possible.

6. The Framework promotes continuous learning and adaptation building on years of experience developing, testing and refining DTM components, tools and methods in various contexts. As operations evolve and expand in the future, the Methodological Framework will maintain flexibility to incorporate new elements over time.

4 Selection of DTM component(s)

DTM includes four standard components – each comprising various methods and tools – that can be applied, adapted and combined as relevant for a particular context and data needs.

The standard components are:

i. Mobility Tracking;
ii. Flow Monitoring;
iii. Registration;
iv. Surveys.

This section supports an initial identification of the best suited DTM component(s) to apply in a particular context, based on common information objectives and specific characteristics and constraints of the operating environment.

Given that operating environments vary widely and may entail a complex set of conditions and requirements for DTM implementation, it will often be necessary to combine various components, tools and methods into a custom approach. Other factors such as available time, resources, in-country capacities and related activities undertaken by partners/government will also impact the selection and feasibility of particular elements and combinations in a given context.

The table below groups DTM components, tools and methods by common information objectives and contextual considerations. Additional detail on the expected results and limitations of methods and tools under each component is provided in Section 5.

5 Description of DTM components, tools and methods

5.1 Mobility tracking

Mobility tracking aims to quantify the presence of population categories of interest (see Annex 1 – Population Categories for further details), reasons for displacement, length of displacement and needs within defined geographical areas and locations, with a frequency that captures mobility dynamics. This component is well suited to quantifying groups of people, whether internally displaced, migrants in transit locations, stranded migrants or other populations of concern. Its approach is highly customizable: it can be light-touch or in-depth depending on the phase and requirements of the response, and often increases in depth and detail over successive rounds. Mobility tracking can be established quickly and is suitable for covering large areas, including for nationwide coverage. It is better suited for populations with some base level of stability and predictability of location, rather than highly mobile populations. However, in and out movements are routinely captured, and the event tracking tool can be supplemented to mitigate this limitation. The following table provides an overview of the key tools and methods under this component:

5.1.1 Baseline area assessment

5.1.1.1 Description And Objective

The objective of the baseline area assessment (optional to implement) is to collate existing or collect new data on population presence in a defined large administrative area and to identify sub-areas for further assessment. It can be used following a sudden onset disaster due to climate change or a conflict to quickly generate key information on the displacement situation, identify locations that will need to be assessed regularly, and provide a first indication of displacement figures, informing the scope and focus of subsequent data collection.

5.1.1.2 Data Collected And Examples Of Use

The output is a list of sub-areas where populations of concern (e.g. IDPs, migrants or returnees) are present, by the observed large administrative level.

Where information on presence of the population(s) of interest is already existing, a desk review suffices for this step. Where data is directly collected, it includes:

- Number of individuals (IDPs, migrants or returnees)
- Reasons and date of displacement/return
- Shelter/accommodation arrangements

The results of the baseline area assessment can be used at the beginning of an emergency to rapidly identify the most affected areas and provide information on the scale of population movements, which can be shared to support partners' response and programming. This systematic assessment of a defined geographic unit provides preliminary information and identifies locations that will need to be assessed regularly, forming the basis for more detailed assessments.

5.1.1.3 Method

The data is either collated based on a desk review or collected through key informants and cross-checked with any available secondary sources.

5.1.1.4 Limitations And Risks

The information gathered using this tool represents estimates and perceptions provided by key informants, with less precision due to the larger observation unit (e.g. district). Data accuracy is ensured through further assessments and triangulation of information, when feasible.

5.1.2 Baseline sub-area assessment

5.1.2.1 Description and objective

The objective of the Baseline Sub-Area Assessment is to collect data on population presence in defined sub-administrative areas identified through the Baseline Area Assessment (human settlements, such as villages and neighbourhoods). This allows for the collection of more exact figures at a lower level of observation. The assessment identifies where people are living and informs target locations for more detailed Multi-Sectoral Location Assessments (Section 5.1.3).

5.1.2.2 Data collected and examples of use

The output is a list of locations where populations of concern (e.g. IDPs, migrants or returnees) are present, by the observed lower administrative level.

Data collected includes:

- Number of individuals (IDPs, migrants or returnees)
- Reasons and date of displacement/return
- Shelter/accommodation arrangements
- Needs (depending on the context)

The results of the Baseline Sub-Area Assessment can be used to confirm and verify the results of the Baseline Area Assessment and provide more granular information at a lower administrative level. They are also used to map and geo-referenced the locations.

5.1.2.3 Method

The data is collected through key informants and cross-checked with any available secondary sources.

5.1.2.4 Limitations And Risks

The information gathered using this tool represents estimates and perceptions provided by key informants. However, key informants are likely to have more detailed information given the size of the observation unit (eg. village instead of district). Data accuracy is ensured through regular assessments and triangulation of information when feasible.

5.1.3 Multi-sectoral location assessmnet (MSLA)

5.1.3.1 Description And Objective

The objective of the Multi-Sectoral Location Assessment is to collect detailed data on the living conditions and needs of populations in particular locations identified through Baseline Sub-Area Assessments. The target population for MSLA depends on the specific scope and purpose of DTM implementation in a given context and may include only population in camp/ camp-like settings (sites), or populations residing in villages and neighbourhoods within host communities and/or areas of return of the observed population of concern.

5.1.3.2 Data Collected And Examples Of Use

The output obtained is detailed data on the numbers, demographics, needs and mobility dynamics of populations of concern (e.g. IDPs, migrants or returnees) by geographic unit. When applied to a site, it can be called a site profile.

Data collected includes:

- Number of individuals (IDPs, migrants or returnees)
- Reasons and date of displacement/return
- Shelter/accommodation arrangements
- Characteristics and accessibility of the site
- Data on multi-sectoral needs (WASH, food, health, livelihoods, protection,communication, etc)

The results of the Multi-Sectoral Location Assessment can be used to guide operational responses by identifying severity in needs and gaps in assistance. DTM sectoral indicators for multi-sectoral location assessments have been defined in collaboration with external stakeholders including Global Clusters, Working Groups and others1. Indicators which have received global endorsement can be found in the DTM Data Dictionary, a centralized repository of DTM questions/indicators and answers. Starting from Information Needs of partners, DTM will select some of the indicators, and develop data collection and management tools that are appropriate to the context. Further guidance on indicator selection can be found in Section 7, including selection of data fields, indicators and questions.

5.1.3.3 Method

Data collection varies according to the context, data needs, resources and phase of the response. Modalities include interviews with key informants, direct observation, group interviews, measurements and counts.

5.1.3.4 Limitations And Risks

The information provided is meant to provide basic community level information related to different sectors (food, WASH, livelihood, etc.), which can be used to flag areas for assistance or more detailed technical assessments by sector experts.

5.1.4 Emergency event tracking/emergency tracking tool

5.1.4.1 Description And Objective

The objective of event tracking is to quickly collect initial information on mobilty- displacement and migration, caused by particular events, to keep pace with rapidly evolving situations during emergencies. It can serve to identify displacement events prior to the roll- out of other mobility tracking components or to provide timely updates on new displacement events occurring between assessment rounds.

5.1.4.2 Data Collected And Examples Of Use

The output is an ad hoc or regular report, compiling information about recent displacements in a particular area or location that are linked to a specific, defined event and population group.

Data collected includes:

- Population group description and numbers
- Location the group is displaced from
- Location the group is displaced to
- Shelter/accommodation arrangements
- Any initial data on sectoral needs

Event tracking generates immediate alert reports regarding new displacements, which may trigger rapid response mechanisms for assistance. Event tracking data also feeds into planning for Baseline Location Assessments, when required.

5.1.4.3 Method

Data collection varies according to the context, data needs, available resources and phase of the migration crisis response. Modalities include interviews with key informants, direct observation and collection of secondary data.

5.1.4.4 Limitations And Risks

The information provided is related to a specific event and does not always provide an overview of all population movements within a location. Only information that can be gathered quickly is captured, and it may thus be incomplete. The data collected through this method can be used to identify locations where specific assessments need to be conducted to obtain more information, and/or to deliver rapid assistance.

5.2 Flow Monitoring

Flow monitoring aims to derive quantitative estimates of the flow of individuals through specific locations and to collect information about the profiles, intentions and needs of the people moving. This component is well suited to quantifying highly mobile populations and providing a picture of complex mobility dynamics. It can be established quickly and is suitable for comprehensively covering of distinct Flow Monitoring Points. The following tables provide an overview of the key tools and methods under this component:

5.2.1 Baseline assessment for flow monitoring (country level)

5.2.1.1 Description and objective

The objective of the Baseline Assessment conducted at country level is to identify areas with population movements of interest where Flow Monitoring Points could be established, if needed.

5.2.1.2 Data collected and examples of use

The output is a list of potential Flow Monitoring Points.

Data collected includes:

- List of key informants
- List of points (location, type of points (e.g. border crossing points, transit centers), type of movements (e.g. transit, incoming, outgoing))
- List of institutions, NGOs, international organizations operating in the identified areas

5.2.1.3 Method

Data is collected through participatory mapping with authorities and concerned partners. The data is used to guide the implementation of Flow Monitoring exercises, when locations of interest for Flow Monitoring Points are not already known.

5.2.1.4 Limitations and Risks

The information provided are collected through discussions with key informants and only give initial indications about areas with high mobility. Field visits/assessments need to be conducted to verify and confirm the information provided.

5.2.2 Baseline assessment of flow monitoing points (local level)

5.2.2.1 Description and objective

The objective of the Baseline Assessment conducted at local level is to collect detailed information about the Flow Monitoring Points through field visits. These points might have been identified during the baseline flow assessment or were previously known locations of interest.

5.2.2.2 Data collected and examples of use

The output is a profile of Flow Monitoring Points.

Data collected includes:

- List of key informants
- Description of points (location, type of points, mode of transport, type of movements)
- Supportive services and assistance available
- List of institutions, NGOs, international organizations operating in the identified areas

5.2.2.3 Method

Data is collected through interviews with key informants and through direct observation.

5.2.2.4 Limitations and risks

Data collected represents the situation at specific points of transit during selected hours of observations and provides only a partial view of the volume and characteristics of population flows transiting through the Flow Monitoring Points. This tool does not intend to provide a total number of all transiting populations, but rather to estimate volume and characteristics of population flows transiting through an observed point.

5.2.3 Flow monitoring registry

5.2.3.1 Description and objective

The objective of the Flow Monitoring Registry is to collect information on the volume and basic characteristics of populations transiting during observation hours at selected Flow Monitoring Points.

5.2.3.2 Data collected and examples of use

The output is data on the individuals and groups moving through a transit location where Flow Monitoring Point has been established. Data collected includes: - Number, age and sex of individuals in the group in transit (disaggregation by age and sex may not be possible in early stages) - Previous transit point(s) and next destination (when possible, intended final destination as well) - Nationality - Mode of transportation The data collected is used to assess displacement or migration flows and trends inside a country, within a region or among regions.

5.2.3.3 Method

Data collection techniques include short interviews with individuals and key informants, or direct observation depending on the context, data needs, access and time allocated for the exercise.

5.2.3.4 Limitations and risks

Data collected represents the situation at specific points of transit during selected hours of observations and provides only a partial view of the volume and characteristics of population flows transiting through the Flow Monitoring Points. This tool does not intend to provide a total number of all transiting populations, but rather to estimate volume and characteristics of population flows transiting through an observed point.

5.2.4 Point of entry (POE) monitoring

5.2.4.1 Description and objective

The COVID-19 pandemic resulted in unprecedented containment policies to restrict global human mobility to prevent the spread of the virus. To better understand how COVID-19 affects mobility across different levels (global, national, and sub-national), IOM has developed a database to map, track and analyze the impact of the COVID-19 pandemic on mobility at Points of Entry (PoE) and other Key Locations of Internal Mobility (KLIM) with restrictive measures and impacted populations. This information is intended to assist in understanding the present situation and in developing tailored responses by partners/governments, as well as provide valuable up-to-date information for further dissemination by civil society, including the media.

5.2.4.2 Data collected and examples of use

Data is collected using the same approach for both Points of Entry and other Key Locations of Internal Mobility (internal transit points, areas of interest and sites with a population of interest). Data is also collected on Migrant Flows to try and quantify the movement of migrants.

Points of Entry (PoE) - Cross-border:

- Airports (presently or recently function airport with a designated International Air Traffic Association (IATA) code
- Land border crossing points (international border crossing point on land, including rail)
- Blue border crossing points (international border crossing on sea, river, lake)
- Other Key Locations of Internal Mobility - In-country locations with restrictive measures and impacted populations:
- Internal Transit Points (internal transit points inside a given country, territory or area)
- Areas of Interest (City, Town or Region with COVID-19 related restrictive measures such as a lockdown or quarantine)
- Sites with a population of Interest (locations such as hotels, temporary reception centres, camps, detention centres hosting groups such as migrants who may be stranded)

Migrant Flows

- Estimated Daily Inflow
- Estimated Daily Outflow

To comprehensively evaluate factors impacting Points of Entry, data is also collected on status of location, type of restrictions imposed, affected populations, restriction period, and the Public Health impact.

5.2.4.3 Method

DTM utilizes in-country expertise of IOM offices around the world to collect relevant information in a systematic and structured approach. DTM then cross-validates and continually check the data, in addition to consistent repeated assessments and triangulation of information.

5.2.4.4 Limitations and risks

The situation related to a global pandemic such as COVID-19 mobility restrictions evolved rapidly and thus data was continuously changing. Furthermore, the presented data categorisations may not accurately reflect the multiple and simultaneous restrictive measures at a specific point. The analysis presented on both the interactive and static products are always dated and timestamped in order to reflect the reality at a given time. In order to reflect the change over time, DTM are also conducting time series analysis to demonstrate the evolving context.

5.3 Registration

5.3.0.1 Description and objective

The objective of registration is to derive census-like data on targeted population or to provide a functional identity (not a legal identity) to support the targeting and aid distribution.

5.3.0.2 Data collected and examples of use

The output depends on the specific purpose of the exercise but will generally be core census-like data on a targeted population or a registry of the households or individuals who are receiving assistance from humanitarian partners.

At a minimum, data collected includes:

- Current location
- Names, age and sex of individuals
- Relationship to the head of household (where applicable)
- Information on individuals with specific vulnerabilities

- Place of previous residence

Registration data has been used for a wide variety of direct assistance programs (e.g. food distribution, construction of shelter, cash assistance, support to the most vulnerable individuals, etc.) as well as for assisted movements such as relocation and return operations.

5.3.0.3 Method

Registration generally involves duplicate free registration of households' and individuals' information and provide a system to be used for targeting, aid distribution and regular updates. In some contexts, registration is conducted using biometric technology to reduce the risk of duplicate registration, where the households and individuals are registered, enrolled in an aid distribution programme, authenticated to ensure that the right person is receiving assistance and distribution details are recorded. Records are updated through verification exercise whereby the continued presence of every household member registered is confirmed biometrically.

5.3.0.4 Limitations and risks

The information collected through this method contains personally identifiable information that need to be managed in line with the IOM's Data Protection Principles and access to the data is strictly regulated. To mitigate the risks of the data being used for an unauthorized and unintended purposes, adequate institutional, technical, and physical safeguards need to be put in place during collection, storage and sharing of the data. As the exercise is resource intensive, coordinating efforts between different agencies with registration capacities is both helpful and important.

5.4 Survey

In most cases, it is not possible nor necessary to interview every single member of a large population group because it is too costly and time-consuming, therefore a sample survey is used. A survey is a standardized way of using probability to collect information about a target group that produces conclusions that can be deemed representative of the population of interest. DTM's survey component enriches and complements other DTM activities by providing a deeper understanding of mobile populations (e.g. IDPs, returnees, migrants). Initial survey design should consider geographic areas of interest, populations of interest and indicators of interest in order to identify the most appropriate methodological approach for the context. Depending on information needs and survey objectives, data can be collected using quantitative or qualitative tools; through individual, household or key informant interviews; and random or purposive sampling methodologies. Indicator selection will determine

the appropriate type of survey required (quantitative or qualitative) and the primary sampling units (households, individuals, community representatives). Standardized indicators can be sourced from the DTM Data Dictionary (see Section 7 for more information) and adjusted for contextual needs. Where a survey is part of an inter-agency or multi-sectoral response, indicators may need to be agreed and/or validated through mandated coordination groups. DTM technical experts are available to support on indicator selection and design. Through its flow monitoring, mobility tracking and registration components, DTM builds and regularly updates the master-list of locations and information about how population categories are geographically spread. This baseline information can be used to develop a survey's sampling framework where the populations of interest for the survey are already covered in the master list. Where statistically representative findings are required, random selection of households or individuals per population group is critical in ensuring validity. DTM technical experts support in the development of sample design methods to ensure an unbiased selection that is tailored to the available sample frame data. DTM has experience implementing the following types of survey categories: Return Intention Survey, Displacement Solutions Survey, Migration Flows Survey, Multi-Sectoral Needs Assessment Survey (MSNA), Socio-economic Surveys, Demographic Survey, and Post-return Surveys. Most DTM surveys are deployed to achieve a range of objectives, as a result specific guidance for the surveys mentioned above can be provided by the DTM Global Support team (dtmsupportservices@iom.int). Guidance for Multi-Sectoral Needs Assessments (MSNA) is provided in the Section 5.4.1 as this survey has a fixed objective.

5.4.1 Multi-Sectoral Needs Assessments (MSNA)

The MSNA survey approach builds on available data on IDP, resident and return presence to provide more comprehensive information on humanitarian and recovery needs, directly from the population of interest. Through mobility tracking and Multi- Sectoral Location Assessments (MSLA), DTM operations are able to provide the population estimates needed for calculating MSNA sample size and sample locations. Using quantitative household interviews, the approach captures characteristics on vulnerabilities and assistance gaps within the target population(s). An MSNA survey allows for detailed metrics on use and awareness of services, disabilities, specific needs, as well as household characteristics that vary too widely to be accurately identified at community level. DTM MSNA aligns with the objectives and indicators of the Joint Intersectoral Analysis Framework (JIAF), under development by the Joint Intersectoral Analysis Group (JIAG). This inter-organizational tool aims to present a unified and standardized approach to collecting and analyzing humanitarian needs data and forms part of the Grand Bargain commitments of the Needs Assessment Workstream.1 MSNAs will usually integrate into the country-level Humanitarian Programme Cycle, specifically to inform the Humanitarian Needs Overview (HNO) and Humanitarian Response Plan (HPC).

5.4.1.1 Description and objective

With the objective of producing aggregate data and evidence on vulnerabilities, severity of needs, and living conditions of target populations in areas of interest, the Multi-Sectoral Needs Assessment (MSNA) approach builds on location information identified through Mobility Tracking Assessments and other sources to identify, select and conduct household level interviews.

The target population for MSNA depends on the specific scope and purpose of DTM implementation in a given context, and may include IDP, returnee, refugee populations in camps or camp-like settings (sites), populations residing in villages and neighbourhoods within host communities and/or areas of return of the observed population of concern

5.4.1.2 Data collected and examples of use

Through household level interviews, the MSNA produces aggregate data on characteristics, needs and mobility dynamics of populations of concern (IDPs, returnees, refugees, and residents as outlined by JIAF).

At a minimum, data collected includes:

- Demographic characteristics of the population of concern
- Multi-sectoral needs (WASH, food, health, livelihoods, protection, communication, disability and inclusion, etc)

5.4.1.3 Method

- Access to basic goods and services
- Shelter/accommodation arrangements
- Reasons for displacement/return
- Date of displacement/return
- Intentions

The results of the MSNA can be used to guide operational responses by identifying needs, gaps in assistance, levels of access to assistance, intentions and concerns for the areas and populations of interest.

The MSNA approach uses a multi-stage design that should be elaborated according to country context, response phase, sector specific information needs, available resources, and access constraints. Sample design is aimed at achieving a high degree of randomization in the selection of interviewees, while maintaining operational feasibility.

STEP 1: Identify target populations and geographic areas of interest. Compile necessary population and geographic information for the sample design. Where possible, this should include the creation of enumeration areas of reasonably equal size.

STEP 2: Develop a specific methodological Terms of Reference that includes: sampling strategy, a detailed data collection workplan, allocation of human and logistical resources and ethical considerations.

STEP 3: Calculate and distribute sample across locations and population groups. This is dependent on size of the target population(s), desired levels of disaggregation/ analysis.

STEP 4: Prepare field coordinators to perform survey duties, including support on ethical interview techniques, safety and security training, confidentiality and consent.

STEP 5: Identify and randomly select households for interview. Data collection modalities include face-to-face or remote based interviews. Due to the volume of interviews, digital data collection tools are preferred for an MSNA.

STEP 6: Monitor and validate data collection to ensure integrity of data through live field monitoring, remote sensing and quality checks.

STEP 7: Manage and maintain dataset for release and sector-specific analysis.

STEP 8: Production of reports and visualizations. Requirements for Probability Sampling include:

- Target population size in areas/ locations of interest (lowest level admin possible).
- Sample frame (a geo-referenced list of household populations) from which to select households randomly. Several approaches can be used to produce a sample frame, including adaptation of mobility tracking baseline data and spatial analysis of remote population estimates such as WorldPop.
- Access to target locations for face-to-face interviews should be consistent across the geographic areas of interest.

5.4.1.4 Limitations and risks

The information collected through this method contains sensitive data on needs, vulnerabilities and other household characteristics which can be misused if not handled properly. To mitigate the risks, surveys are conducted as per the IOM Data Protection Principles and access to the data is strictly regulated. To mitigate the risks of the data being used for an unauthorized and unintended purposes, adequate institutional, technical, and physical safeguards need to be put in place during collection, storage and sharing of the data. This exercise requires significant technical expertise and is human, logistical and financially resource intensive.

MSNA surveys also entail the collection of sensitive information which may pose a risk to interviewees and data collectors and may trigger recollection of traumatic experiences. Indicators must be carefully designed to reduce trauma, including those relating to minors, persons with disabilities and those having experienced psychological distress or trauma.

6 Limitations and risks

Data collection methods carry certain limitations and risks, which should be considered and mitigated to the extent possible during the design and implementation of DTM activities. Specific limitations and risks associated with DTM tools and methods covered in this Framework are indicated throughout the various tables in the previous section. Limitations and risks may vary depending on the tools and methods that are adapted or combined. The characteristics of a particular implementation approach and any related caveats for analysis or use of the data produced, should be indicated in the methodology section of DTM information products. Furthermore, IOM DTM co-authored the Inter-Agency Standing Committee (IASC) Operational Guidance on Data Responsibility in Humanitarian Action,1 providing tools on how to design data activities responsibility.

Given variations in approaches and operating environments, a risk assessment is recommended when designing a DTM exercise to identify areas of concern specific to the context and ensure mitigation measures are in place throughout implementation.2 This includes identification of potential risks for mobile populations when selecting components, tools and methods during the planning stages, as well as regular monitoring and adjustments to minimize risks throughout implementation. Do No Harm is to be prioritised throughout the entire process, including during analysis of results and sharing of data. Including an explanation of the approach, objectives and limitations of data collection when disseminating DTM products can mitigate the risk of inaccurate or misleading data analysis by third parties, for purposes that undermine the well-being of populations on the move.

In the early stages of a response, provision of the best information possible within the shortest time frame may be prioritized over statistical robustness of data, in order to produce an initial indication of population movements and needs to kick-start response planning. As access expands and the universe of analysis becomes known with more certainty, DTM exercises will often be adapted or expanded to incorporate additional tools and methods, generating information with greater validity, accuracy or precision. Data collection through DTM is repeated in multiple rounds to regularly refresh and refine available information and to adapt as needed to change in the operational context or information objectives. Past implementation experience has shown that different components, tools and methods may become relevant at different stages of an operation and combining elements can strengthen an approach and enrich the data and information produced.

7 Using the DTM dictionary selection of data fields, indicators and questions

Following the selection or combination of DTM components for implementation, it is necessary to designate key data fields, indicators and questions for the selected tools. The DTM Data Dictionary has been developed by the Global DTM team to guide and simplify this process, facilitating standardization and comparability of data attributes (values and formats) and indicators among country exercises, and streamlining workflows for aggregation. The Data Dictionary further supports data sharing with partners, providing metadata to orient users on the content of DTM datasets.

The Data Dictionary includes core indicators and data attributes for each DTM component, to be included in all exercises, as well as standard indicators that can be incorporated, as useful and relevant, for a given context. Additional indicators can be integrated into ongoing DTM exercises over time to fill information gaps or respond to changing needs within the operating environment. It is important to note that data attributes that were collected previously should not be changed or removed when new indicators are added, to ensure the completeness of the database for future historical record and analysis.

DTM identifies vulnerable groups and gathers sex and age disaggregated data where possible to enhance inclusivity of response activities. DTM uses commonly agreed categories for the identification of vulnerable groups, included in the Data Dictionary, while also incorporating context-specific indicators of vulnerability.1

The Data Dictionary is a centralized repository of information about the data fields and questions used in DTM data collection tools. It has been developed to help inform DTM operations about appropriate and useful indicators to deploy for the various components of DTM. Using the Data Dictionary at an early stage helps to standardize DTM operations and reduce the time required to set up a new operation/DTM round. In addition, adoption of the Data Dictionary ensures that all data field naming, structuring are consistent whenever each individual indicator is deployed across different country missions. All indicators have been translated into English, Arabic, French and Spanish, so the despite the wording of the question may change based on context, the back end structing will remain consistent. The Data Dictionary simplifies the process of choosing the data fields and questions, and supports data sharing with partners, providing metadata (a set of data) to orient users on the content of DTM datasets. As previously mentioned, the Data Dictionary data fields have been developed

with global experts and developed with the standard Humanitarian Xchange Language (HXL) structuring.

One of the functionalities of the Data Dictionary interface is a Form builder, that enables the DTM Field Team to select indicators from the Data Dictionary and build the form for mobile data collection in a few simple steps. “Optional” and “Recommended” questions and their answer options can also be adjusted to the context when using the Form Builder. For support on Data Dictionary and Form Builder, please contact the DTM support Services (dtmsupportservices@iom.int).

The Data Dictionary specifies the Question or Indicator Type for each question/indicator (data field) to be included in the collection tools. There are five Indicator Types:

- Core (obligatory)
- Core Central Data Warehouse (CDW) (obligatory)
- Optional
- Recommended by Global Sectoral Experts
- Requested by Mission

8 Data classification and responsibilities

DTM data is governed according to IOM's Migration Data Governance Policy and Guidelines. Datasets are classified according to risk exposure in case of unauthorized access.

Data responsibility of IOM staff is defined according to roles (Data Trustee, Data Steward, Data Manager and Data Custodian). IOM staff working on DTM should read and be complicit with IOM's Migration Data Governance Policy and Guidelines, available on IOM's Intranet Portal.

9 DTM standards

The DTM Standards specify the minimum requirements and recommended guidelines to support all DTM staff to successfully implement DTM programmes. The Standards apply worldwide across DTM activities and serve as a reference tool for DTM staff, IOM partners and other stakeholders and users, particularly in the use of DTM data.

Through harmonization of the various DTM guidance documents produced across operations and over time, the Standards make it easier to identify good practices as well as existing gaps. As they become available, the Standards will be posted to a centralized DTM Standards SharePoint space, to help all users to quickly locate and retrieve relevant requirements and guidelines.

The Standards are minimum requirements that recognize the importance of consistent safeguards, systematic monitoring and evaluation as well as comparisons of DTM exercises and data across time and context. Developed collectively by DTM staff from country, regional and global teams, the Standards also recognize the importance of flexibility and adaptability in DTM's response to context-specific needs. Changing conditions, innovation and emerging practices will inform revisions to our Standards.

The DTM Standards cover the following topics:

AI, DATA SCIENCE AND ETHICS This Standard provides recommendations for the full lifecycle of AI and data science projects in DTM, from background information and preparatory work to post-mortem assessments. This Standard also compiles a wide range of resources for further reading into specific issues, in addition to providing clear, IOM-specific guidance related to ethical, technical and practical concerns.

DATA ANALYSIS PLANNING This Standard defines the process by which DTM Officers, together with partners, identify and prepare (research) objectives, and detailed plans that specify roles and responsibilities, outline and list the type and levels of analysis to be performed from both primary and secondary sources of data, the data analysis (and visualization) production tools, process and formats to be used, as well as the limitations (and risks) of the data and sources.

DATA ARCHIVING, RECOVERY AND DESTRUCTION This Standard defines data archiving as the process of securely storing data not actively in use in DTM work. It defines data recovery as the process of retrieving information from archives for (return to) active use. It defines data destruction as the process of removing information from media (the material in which information is stored) in a way that it can no longer be retrievable or readable. This

Standard describes the requirements and guidelines covering the classifications for the archiving, recovery and destruction of IOM/DTM data; how to securely archive, recover and/or destroy DTM data; the approval processes required; tracking DTM data archiving, recovery and destruction; and includes essential data archiving, recovery and destruction resources.

DATA DESIGN AND COLLECTION This Standard provides requirements and guidelines on how to design and collect DTM data with the goal of producing high-quality data that is fit for use in both Humanitarian and Development settings as well as other DTM activities. This Standard defines the different steps involved in data collection from identifying the need for data up to data collection and validation. This Standard also provides guidelines on how to integrate data validation in the design process.

DATA PROTECTION AND PRIVACY This Standard provides a checklist of key steps to secure the right to privacy of data subjects. IOM defines data protection as the systematic application of the institutional, technical and physical safeguards that preserve the right to privacy with respect to the collection, storage, use and disclosure of personal data. This Standard is informed by IOM Data Protection Principles (IOM IN 138), the DTM and Partners Toolkit and other key protection related resources. This Standard sets out actions and processes to adopt at each stage of the information management cycle.

This Standard describes the requirements and guidelines covering all forms of data sharing including the process and approvals needed for sharing DTM data according to the IOM data classification and the Data Governance Policy (IOM IN 253).

This Standard provides guidance on the production of DTM data visualization outputs at the global, regional and mission level to ensure consistency and standardization across all DTM outputs. This Standard provides specific parameters to consider when producing visualizations; link to existing visualization sources (e.g. DTM Reporting Standards, DTM Data Visualization Design Guidance); identify gaps and define new standards, if and as needed; and outline the process needed for clearance/approval for external dissemination. This Standard will cover products that are narrative in focus (visuals for reports), maps or any other visual output, including static and dynamic outputs.

This Standard provides guidance which includes clear definitions and procedures for engaging, initiating, and maintaining relationships. Also included in this Standard are typical classifications and types of partnerships — boundaries for engagement — and protocols for entering partnerships, coordinating thoroughly with IOM's Departments of External Relations, Legal Affairs, and other relevant focal points. Furthermore, this Standard draws on and expands, in parts, on already established literature within IOM.

This Standard draws from the IOM/DTM Geospatial Systems Resource Guide and provides operational guidance in addition to providing definitions and standards on spatial data infrastructure, cartographic design, and visualizations related to geospatial data.

Within this Standard, internal data consolidation is defined as the process of centralizing datasets produced by each DTM mission at the regional and global level. This document

outlines the steps for sharing and validating a final dataset through different pipelines to ensure DTM data consistency.

Within this Standard, per IOM's Monitoring and Evaluation Strategy, monitoring is defined as the continuous function that uses the systematic collection of data on specified indicators to provide management and the main partners of DTM with an indication of the extent of progress and achievement of objectives and progress in the use of allocated funds. Evaluation is defined as the systematic and objective assessment of ongoing or completed DTM activities, their design, implementation and results. This Standard outlines existing M&E activities with good practices, presenting available sources and identifying the gaps in order to support the enhancement of DTM programme and data quality.

This Standard draws a foundation from the IOM Project Handbook, promoting it as the reference point and key institutional standard for project management. This Standard also identifies key modules in the IOM Project Handbook of particular use for DTM operations and provides context specific examples such as enumerator modality, project development checklist, and cooperation agreements.

For the purposes of this Standard, publishing constitutes the dissemination of DTM reports and data through official IOM/DTM web-platforms, recognized unaffiliated platforms (e.g. Reliefweb or HDX), academic journals, social media or other means of public dissemination. The primary focus of this tandard will be the publication of reports. This Standard covers: quality assurance protocols (including the review process), risk assessments for publications (data and political sensitivity), and DTM brand harmonization in reports.

This Standard describes the definitions, requirements and guidelines covering sampling in DTM operations. Sampling methods, including designing a sample and sample frame, and implementation strategies are provided.

This Standard defines training as the organized process by which people learn knowledge and/or skill for a definite objective. Within DTM programmes, training refers to the teaching and learning activities planned and organized with the goal of (applying) knowledge, skills, abilities, and attitudes needed to advocate for, plan, implement, report on DTM activities. This Standard outlines the steps and resources to be used when developing, implementing, and monitoring DTM training activities for different audience groups.

10 DTM partners toolkit

In 2017, DTM and partners began operationalizing the results from the Grand Bargain work by jointly developing a toolkit that applies the approach developed by the working group to the work of DTM teams and Partners in the field to support cooperation. Partners are those who participate in the humanitarian response, and include Clusters, Sectors, Working Groups (WGs), NGOs, International Organizations, Authorities, UN agencies, IOM Programmes and more. DTM has worked with many Partners, including Global CCCM Cluster, Global Child Protection Areas of Responsibilities (AoRs), Global Education Cluster, Global Gender-Based Violence (GBV) AoR, Global Health Cluster, Global Protection Cluster, Global Shelter Cluster, Global UNICEF Cluster Coordination Team, Global WASH Cluster, Geneva-based Cash Working Group, Global Accountability to Affected Population (AAP) and Protection from Sexual Exploitation and Abuse (PSEA) experts from IOM, the IASC Task Force and Translators Without Borders.

The common objective of DTM and Partners Toolkit is to ensure that DTM collects data that partners can use. After common challenges faced by field colleagues were identified, DTM and Partners worked jointly to find ways to overcome said challenges. The resulting approach and tools are now in the jointly developed and publicly available DTM & Partners Toolkit (consultable by topic: https://displacement.iom.int/dtm-partners- toolkit/guide, consultable by tools for each step of the process: https://displacement.iom.int/dtm-partners-toolkit/steps a repository of all tools at: https://displacement.iom.int/dtm-toolkit/ dtm-partners-toolkit).

11 Conclusion

DTM exercises have been developed, tailored and refined during years of operational experience in a wide range of contexts to track and monitor mobile populations and their needs. A key factor in DTM's effectiveness to date has been the flexibility to customize the design and approach by selecting and combining tools and methods to achieve the desired objectives and data needs within a specific operating environment.

This Framework aims to facilitate continued innovation, learning and adaptation, while promoting quality, coherence and application of good practice across DTM operations worldwide. The previous sections have been designed to support the identification of appropriate components, tools and methods for designing DTM activities, within a framework that prioritizes core principles, quality assurance, data governance and other related concerns. In this updated edition, additional sections with complimentary tools such as the DTM Standards and DTM Partners Toolkit have been added. These are all being packaged under the DTM Global Support Team's support suite for DTM operations which include:

- DTM Partners Toolkit
- DTM Data Dictionary
- DTM Standards

For any further information, please contact DTM support Services: dtmsupportservices@iom.int