GPA Research and Evidence Group Call

18th May 2021

Global Data Progress and
Measuring Energy Access in Displacement Contexts

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Agenda

- 1. General introduction and welcome to the call
  (Sarah Rosenberg-Jansen, GPA and the University of Oxford - 15min)
- 2. What we know so far in the sector and the data gaps remaining
  (Iwona Bisaga, MECS programme at Loughborough University - 15min)
- 3. Presentation on the work on the IOM Energy Needs Framework
  (Adam Matthey-Junod and Anaïs Ostaszewski, IOM - 30 min).
- Coffee break and stretch (5 mins)
- 4. Interactive activity: extracting value from IOM's framework for other organisations
  (2 breakout rooms facilitated by Adam Ostaszewski and Anais Matthey-Junod, IOM - 45 min)
- 5. Closing: reflections and next steps for IOM data collection (15min)

GPA
GLOBAL PLATFORM FOR ACTION

7 AFFORDABLE AND CLEAN ENERGY

Global **Platform** of Action (GPA) for Sustainable Energy Solutions in Situations of Displacement

- New GPA Platform title and changes to website: https://www.humanitarianenergy.org/
- New steering group members of the GPA as below

- For new members can sign-up to newsletter on homepage above
- LinkedIn Humanitarian Energy Practitioners Group

- Our group title: GPA Research and Evidence Group

Steered by

unitar United Nations Institute for Training and Research
UNHCR The UN Refugee Agency
IOM UN MIGRATION
WFP World Food Programme
Food and Agriculture Organization of the United Nations
UNDP
UN environment programme
SUSTAINABLE ENERGY FOR ALL
giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
Practical ACTION
CHATHAM HOUSE
MERCY CORPS
MECS Modern Energy Cooking Services
CLEAN COOKING ALLIANCE
SNV
INTERNATIONAL DEVELINE FUND

Supported by

Federal Foreign Office
Norwegian Ministry of Foreign Affairs
MECS Modern Energy Cooking Services
NORCAP OPERATED BY NRC

Previous Calls and GPA Data Workshops

- Last working group call: Jan 2021 to decide on directions and group focus activities. Online information here.
- December 2020 GPA Data Workshops: online December session 1 here and December session 2 here.
- Over the past 9 months, focusing on three core areas to drive global and project data forward.

Previous work on indicators harmonization in July and December 2020 workshops, flows into all three pillars

A)
1-2-1 Consultations with core humanitarian energy organizations

Aim: to facilitate data analysis and collection

13 Organizations including: GIZ, Mercy Corps, Practical Action, UNHCR, IOM, DRC, Norcap, etc

Jonathan

B)
Developing the Humanitarian Energy Data Sharing Exercise (BI Tool)

Aim to develop technical tools and energy survey products

Inputs from the GPA Steering Committee and core partners

Sadiq and Jonathan

C)
Direct support to organizations in developing data indicators and assessment frameworks

Aim to support institutions on embedding data within existing processes

Working with UNHCR DRS team and IOM energy data team

Sarah

Data Progress Recap

7 AFFORDABLE AND CLEAN ENERGY

We are here!

Harmonise Data and Decide on Indicators

Data mapping and institutional alignment on indicators

Standardised indicators: Can we tell what progress is being made?

Data Production

Measurements and Basic Information

For example: MECS supported global data analysis and IOM Energy Needs Assessment Framework work

MECS Modern Energy Cooking Services

IOM UN MIGRATION

Analyse and Synthesize Data and Information

Facts and Data Sets and Information

Energy Feasibility Assessments: what energy needs do displaced people have?

NORCAP NORWEGIAN CAPACITY OPERATED BY NRC

Decision-making and Disseminate Results

Evidence and Evaluation

Programme design tools: what can help us design effective energy programmes?

Programme Design and Implementation

Knowledge and Informed Decisions

Information sharing: do we all know what each other are doing?

Evaluate and Learn

Strategic Planning and Investment

Global analysis and state of humanitarian energy sector: overall, how are we progressing?

Today's Call

- **Global Data Progress and Measuring Energy Access in Displacement Contexts.**
- The session is co-hosted with the International Organisation for Migration (IOM).
- We welcome two of their data and energy finance specialists, Anaïs Matthey-Junod and Adam Ostaszewski, to discuss their work developing the IOM Energy Needs Assessment Framework.
- We will hear from sector specialists at the MECS programme and IOM about the importance of data for humanitarian energy, before moving on to an interactive group discussion on understanding how energy assessment frameworks can be used within and across humanitarian organisations.
- Our previous data workshop information in December is online here: https://www.humanitarianenergy.org/news/latest/gpa-data-workshop-facilitating-data-sharing-and-analysis.

Global Facts and Figures

- **What we know so far in the sector and the data gaps remaining**

- Iwona Bisaga

- MECS programme at Loughborough University
- Work supported by UK FCDO

- 15 mins

MECS Modern Energy Cooking Services

Foreign, Commonwealth & Development Office

MECS
Modern Energy Cooking Services

Data: what do we know so far and what gaps are remaining?

Energy access in refugee camps

18th May 2021

Dr Iwona Bisaga
i.m.bisaga@lboro.ac.uk

Loughborough University

ESMAP
Energy Sector Management Assistance Program

UKaid
from the British people

The high level numbers

>80 million forcibly displaced people globally, with more than 26 million refugees (UNHCR, 2020)

~90% of the displaced populations in Africa lack sufficient access to energy (NORCAP & BCG, 2020)

~80% & ~90% of the displaced people without access to electricity and energy for cooking, respectively (MEI, 2015)

US$ 223 million spent by refugees and internally displaced people for off-grid lighting in 2018: US$ 121 million in camps, US$ 27 million in slums, US$ 65 million in rural areas, and US$10 million in urban areas (Lighting Global, 2019)

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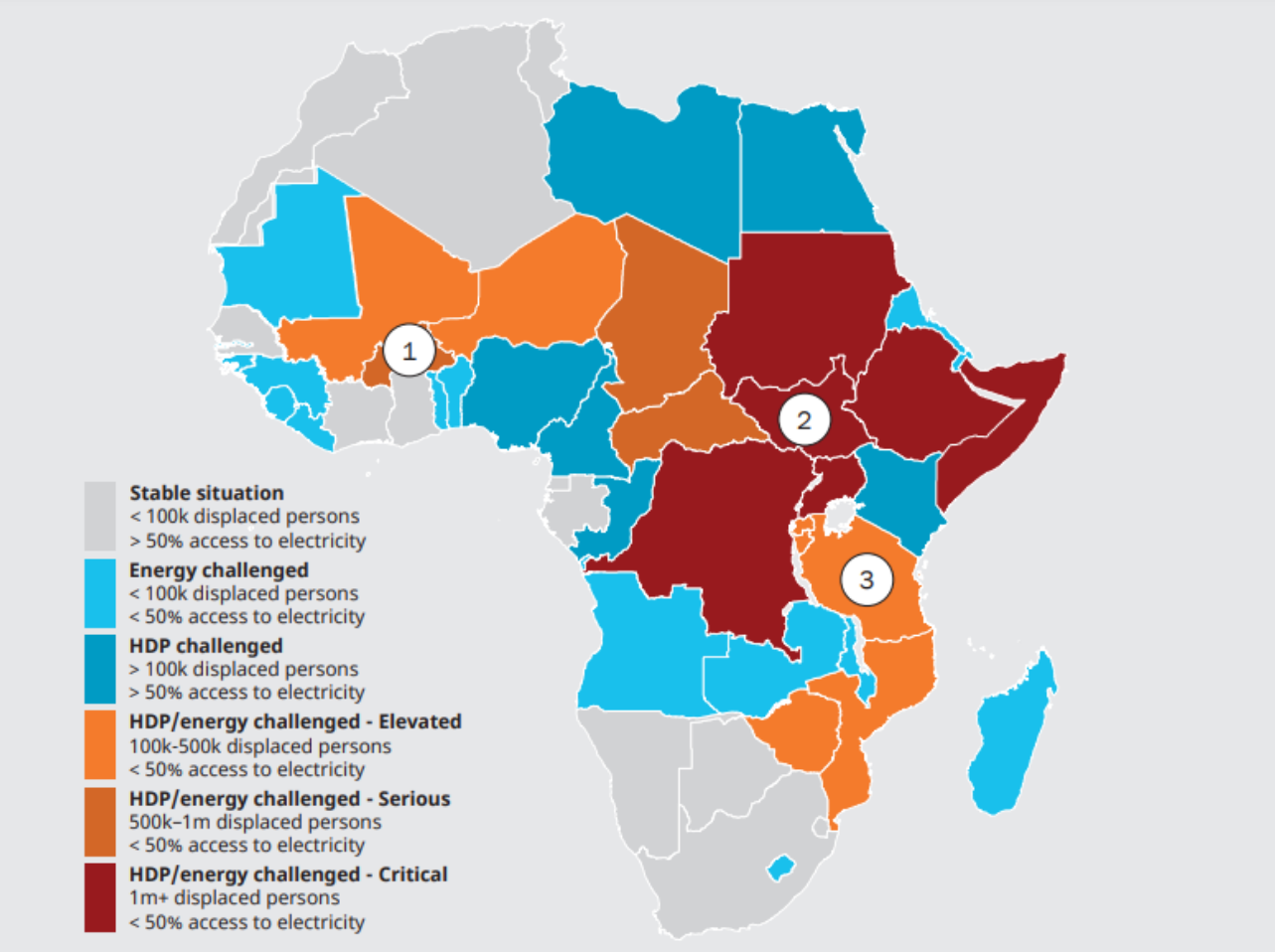
Displaced in Africa and what energy offers to them



1. Humanitarian opportunity – Burkina Faso (displaced population >850k)
2. Peace opportunity – clean energy for peacebuilding in South Sudan
3. Development opportunity – for both host communities and the displaced in TNZ

Source: UNHCR (2019), IEA (2018), European Commission, Worlddata.info, NORCAP-BCG analysis

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REFUGEES IN CAMPS

	≥ Tier 2	≥ Tier 2	Number of refugees in camps (2020)	Total number of refugees in the country (2020)	Total global number of refugees (2020)
Iraq	100%	100%	~95,000	~245,000	26 million
Jordan	100%	>90%	~745,000	>126,000	
Lebanon	96%*	98%	~230,000	>1.5 million	
Burkina Faso	33%	5%	~25,000	~25,000	
Bangladesh	32.2%	88%	~880,000	~880,000	
Rwanda	19%	40%	~164,000	~164,000	
Kenya	14%	14%	~420,000	>500,000	
Djibouti	7%	7%	>29,000	>29,000**	
Ethiopia	7%	6%	>735,000***	>735,000	
Uganda	1%	45%	~1.4 million	~1.4 million	
TOTAL	/	/	> 3.8 million	> 4.7 million	

Iraq

≥ Tier 2	≥ Tier 2	Number of refugees in camps (2020)	Total number of refugees in the country (2020)
100%	100%	~95,000	~245,000

Electricity and cooking: Data based on the Darashakran and Domiz 1&2 refugee settlements (IRENA, 2019)

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Jordan

≥ Tier 2	≥ Tier 2	Number of refugees in camps (2020)	Total number of refugees in the country (2020)
100%	?	~745,000	>126,000

Electricity: Azraq and Zaatari camps + urban Irbid Governorate (RE4R Practical Action, Mercy Corps 2020)

According to UNHCR 2021 data 100% have electricity access in Azraq and Mafraq (Tier not specified)

Cooking: Data based on Zaatari and Azraq camps; in both: mainly standard LPG cookers with coupon for fuel. With free electricity there has been a significant increase in electrical cookers; people sell their LPG coupon (UNHCR, 2021)

Average electricity consumption is 78kWh per month per households or 2.4 kWh per day for 12 hours (UNHCR, 2021)

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Lebanon

≥ Tier 2	≥ Tier 2	Number of refugees in camps (2020)	Total number of refugees in the country (2020)
96%*	98%	~230,000	>1.5 million

Electricity and cooking: data according to VASyR 2020 (UNHCR et al, 2020)

Weighted expenditure on power	Monthly expenditure on Grid	Monthly expenditure on Generator	Expenditure on Grid + Generator
Lebanese host communities	$ 33.8	$ 38.5	$ 72.3
Syrian refugees in refugee settlements	$ 12.2	$ 15.0	$ 27.2
Syrian refugees in rented accommodation	$ 22.5	$ 23.6	$ 46.1

Average expenditure on grid and diesel gen-sets for Lebanese host communities and Syrian refugees. Source: Lighting Global (2019)

"On average, Lebanese spend 9% of their income on energy needs, compared to 18% for Syrians in refugee camps and 23% for those in (rented) accommodation." (Lighting Global, 2019)

* There is a heavy reliance on informal electricity services in the camps (https://www.jadaliyya.com/Details/40397)

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Burkina Faso

≥ Tier 2	≥ Tier 2	Number of refugees in camps (2020)	Total number of refugees in the country (2020)
33%	5%	~25,000	~25,000

Electricity and cooking: data for Goudoubo camp from MEI (2015)

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Bangladesh

≥ Tier 2	≥ Tier 2	Number of refugees in camps (2020)	Total number of refugees in the country (2020)
32.2%	88%	~880,000	~880,000

Electricity: data from World Bank (2016); according to UNHCR (2021): 27% of refugees in Kutapalong (Cox's Bazar) have electricity access (Tier not specified)

Cooking: LPG programme: 88% report using exclusively LPG, data from J-MSNA Food Security Cluster (ISCG, 2020)

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Rwanda

≥ Tier 2	≥ Tier 2	Number of refugees in camps (2020)	Total number of refugees in the country (2020)
19%	40%	~164,000	~164,000

Electricity: data from Practical Action (2020), based on Nyabiheke, Kigeme and Gihembe camps (RE4R) (8% no electric lighting, 23% solar lantern or rechargeable battery, 16% SHS, 2% mini-grid) (-> 81% Tier 0 or 1, 19% Tier 2)

According to UNHCR 2021 data, 10% in Mahama, Kigeme and Mugombwa have electricity access (Tier not specified) + 24% in Gihembe and Nyabiheke; 0% have access in Kiziba

Cooking: 81% rely on firewood as the primary fuel source, 77% use three stone fires/mud stoves, 21% use improved cookstoves (+ 42% use an ICS as a back up) (ibid.)

However, close to 100% of Mahama (the biggest camp hosting over 60k refugees) rely on LGP; the combined 6.3k across the 3 camps + 60k in Mahama make for an estimated 40% of all in camp refugees with Tier 2 and above access to energy for cooking.

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Kenya

≥ Tier 2	≥ Tier 2	Number of refugees in camps (2020)	Total number of refugees in the country (2020)
14%	14%	~420,000	>500,000

Electricity and cooking: data from MEI (2015)

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Djibouti

≥ Tier 2	≥ Tier 2	Number of refugees in camps (2020)	Total number of refugees in the country (2020)
7%	7%	>29,000	>29,000**

Electricity: Markazi camp has 100% access to Tier 2 and above (approx. 7% of the total refugee population). Holl Holl and Ali Addeh have Tier 1 or 0; Djibouti Ville not assessed (GPA, 2021)

Cooking: Holl Holl and Ali Addeh Tier 1 or 0; Markazi – likely Tier 2; Djibouti Ville not assessed (GPA, 2021)

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Ethiopia

≥ Tier 2	≥ Tier 2	Number of refugees in camps (2020)	Total number of refugees in the country (2020)
7%	6%	>735,000***	>735,000

Electricity: Tsore and Sherkole refugee settlements (IRENA, 2019)

Cooking: Including Tsore and Sherkole (IRENA, 2019) + 6 other camps (Afar, Assosa, Melkadida, Gambella, Jijiga, Shire) from UNHCR data (2017); in Tsore and Sherkole only that number is 13% (Tier 2 and above)

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Uganda

≥ Tier 2	≥ Tier 2	Number of refugees in camps (2020)	Total number of refugees in the country (2020)
1%	45%	~1.4 million	~1.4 million

Electricity: data from Uganda JMS Needs Assessment (2018)

According to UNHCR 2021, 0% of refugees in 5 camps have electricity access (Imvepi, Rhino camp, Lobule, Kirandogo)

Cooking: 45% is the average improved stove ownership among refugees (ranging 24% - 73% across regions); however, still very heavy reliance on firewood (av. 92%, ranging 78% to 100% across regions)
(Uganda JMS Needs Assessment, 2018)

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Thank you!

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IOM Energy Needs Framework

- **Presentation on the work on the IOM Energy Needs Framework, including tools and methodology**

- Adam Matthey-Junod and Anaïs Ostaszewski

- IOM
- Work supported by NORCAP

- 30 mins

IOM Energy Needs Assessment Framework

GPA Research and Evidence Group
18 May 2021

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Agenda

- Introduction to the Framework
- The Global level
  - IOM Global-level Data Collection (DTM MSLA)
- The Project Level
- Household Assessments
  - Example at the Global Level
- Community Facility Assessments
  - Example at the Project Level
- Institutional Facility Assessments
  - Example at the Project Level
- Framework Components, Tools and Next Steps

IOM Team for Energy Needs Assessment Framework

Adam Ostaszewski
Energy Data Officer

Anaïs Matthey-Junod
Junior Energy Expert

Both **NORCAP** (NRC) Energy Experts Deployees

- IOM Headquarters, Geneva
- Timeframe: October 2020 - December 2021

Our mission:

- To design a **standardized energy needs assessments** for 1) households, 2) community facilities and 3) institutional (IOM) facilities
  - to fill data gaps, which would support **project implementation**
  - to **track progress** toward SDG 7 - universal energy access goal
  - while anchoring the work in existing **IOM Displacement Tracking Matrix (DTM)** methodology
  - and in line with the **GPA, UNHCR Clean Energy Challenge (CEC), SDG 7 and Joint Intersectoral Analysis Framework (JIAF) indicators**
  - to design **training materials** to introduce the assessments and to train **enumerators**

Introduction to the Framework

Why do we need such a framework?

- Collecting energy needs data in a **standardised** and **harmonised** way enables:
  - IOM, humanitarian agencies and partners to more effectively plan, resource and align their energy programmes
  - to ease the process of data sharing among organisations and institutions, leading to collaboration on joint project development
  - inter-agency comparison of datasets and analyses
  - to inform programme and project design (facilitate a better-tailored design of energy interventions);
  - to inform evidence-based financing as well as to support humanitarian needs overviews, humanitarian response plans and any other relevant appeals
  - for host governments to better understand the energy use of displaced people and to incorporate these needs into national energy access planning and targets
  - to track the progress towards SDG7 for displaced people

Collecting Energy-Related Data

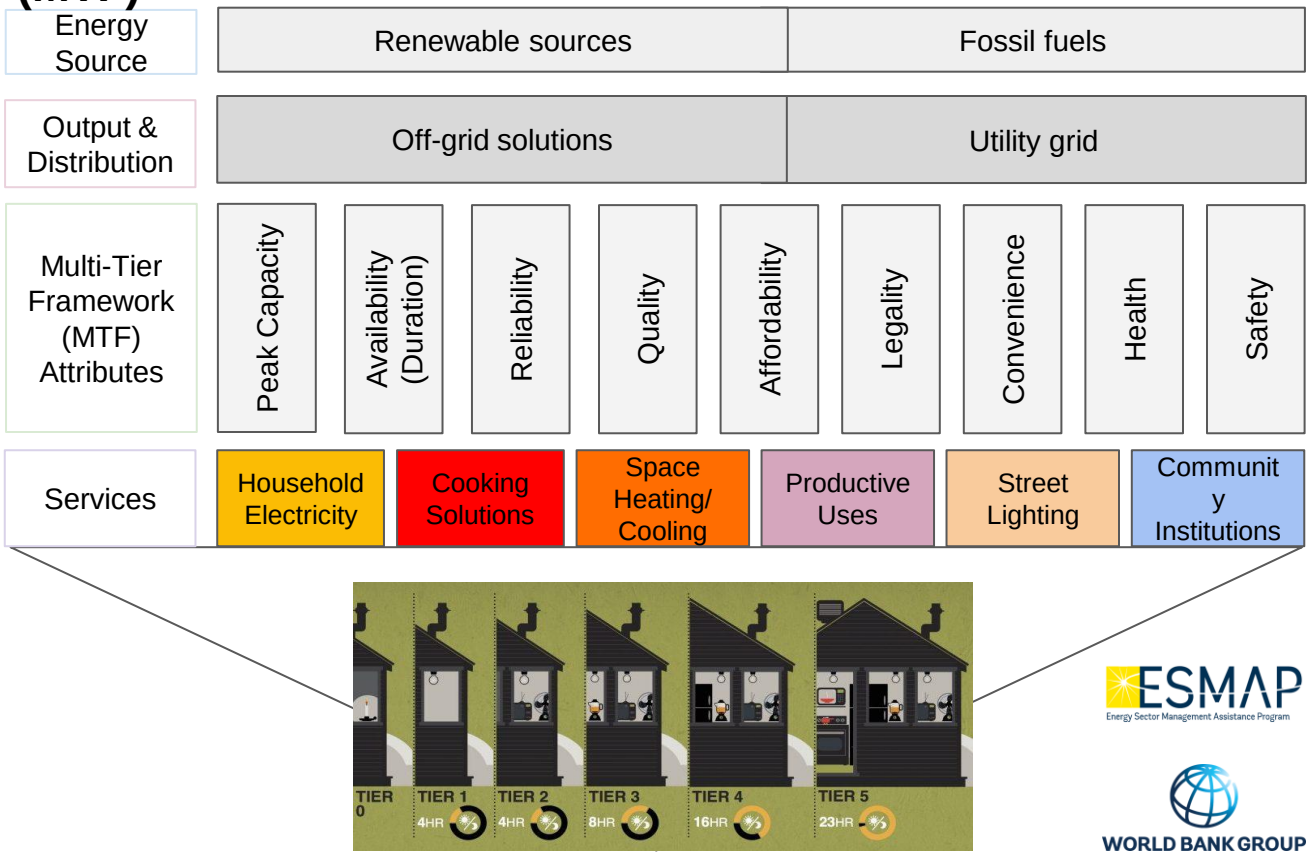
A Standardized and Harmonized Approach

- GPA Indicators
- UNHCR Indicators
  - Clean Energy Challenge
- SDG 7 Indicators

➔ IOM to align with existing indicators used in the (humanitarian) energy sector as well as existing approaches to defining “energy access”

➔ IOM to leverage internal capacity such as the Displacement Tracking Matrix (DTM) to collect energy-related data

Measuring Energy Access: The Multi-Tier Framework (MTF)



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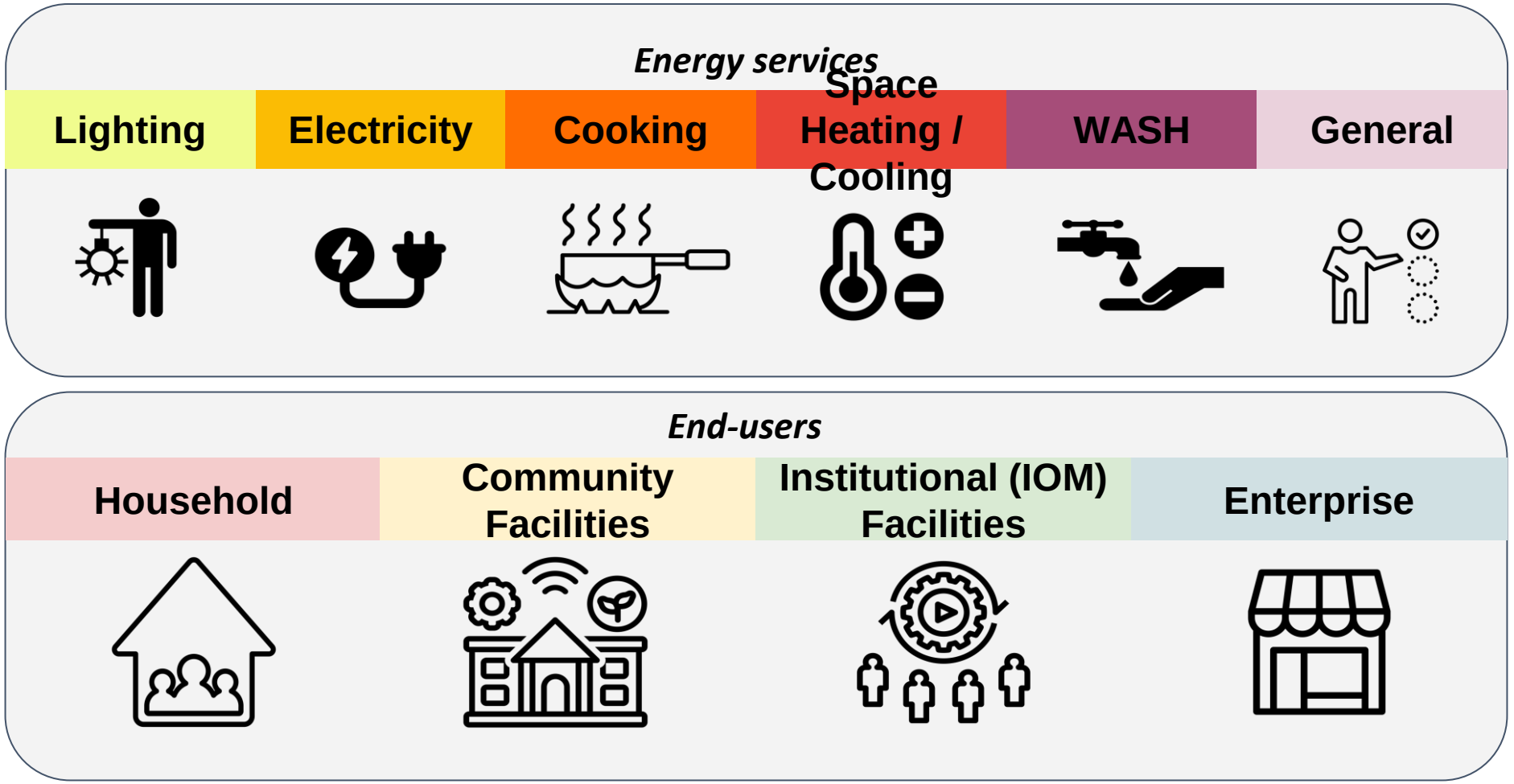
WORLD BANK GROUP

The Scope of the Framework

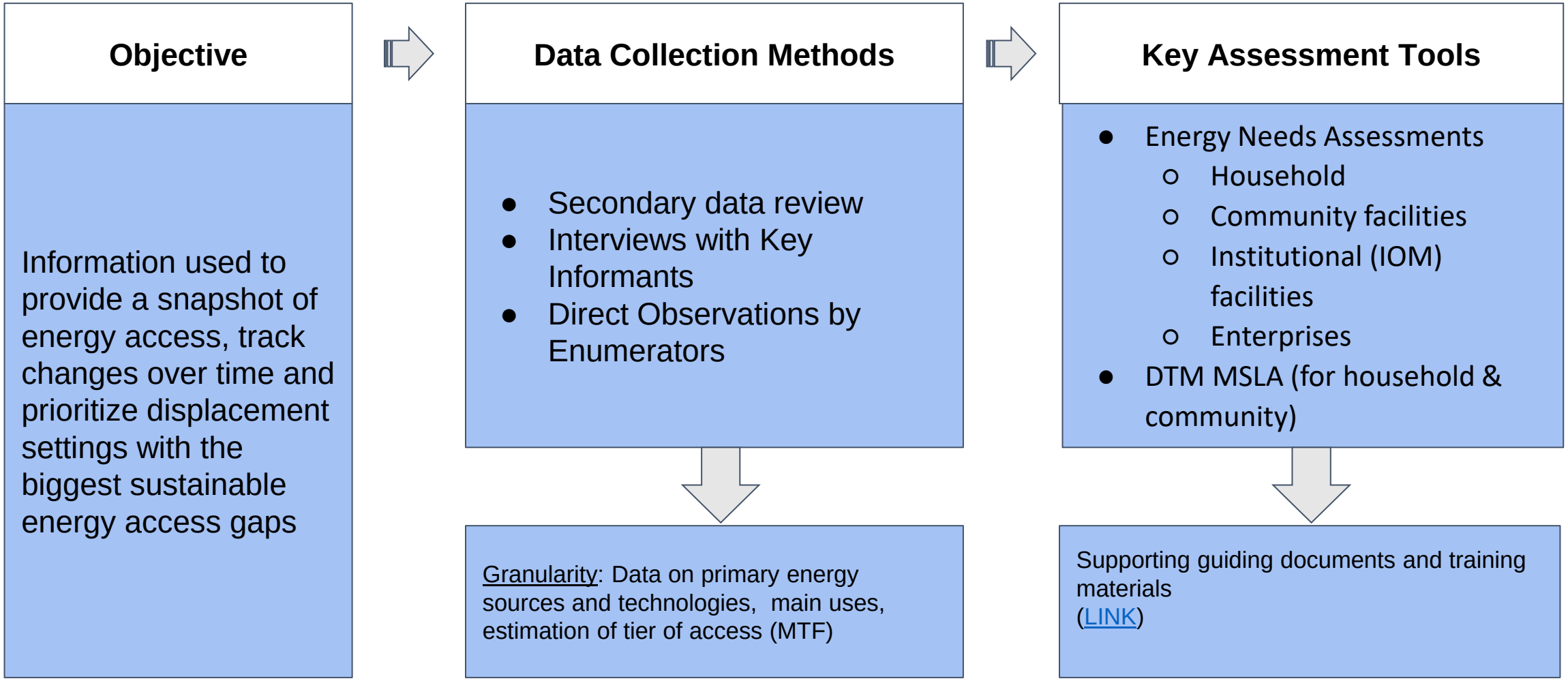


The Levels of the Framework

Energy Sources	Fossil fuels (diesel, kerosene, etc.)			Renewable sources (solar, wind, etc.)		
Services	Electricity	Lighting	Cooking	Space Heating / Cooling	WASH	General
End Users	Household		Community Facility	Institutional (IOM) Facility		Enterprise
Objectives	The objectives of the Framework are to support and **operationalise** IOM's commitment to assess energy needs in displacement settings and collecting energy needs data in a **standardised** and **harmonised** way.					
Levels	**Global-level Framework**			**Project-level Framework**		
	Information used to provide a snapshot of energy access, track changes over time and prioritize displacement settings with the biggest sustainable energy access gaps			Information used to support project and programmes development, engage private sector, and unlock financing opportunities		
Key Indicators	⇒ Selection of standardized and harmonized energy **indicators** Sources: GPA, UNHCR, SDG7, MTF, JIAF, etc.					

The Global Level

The Global-level Framework



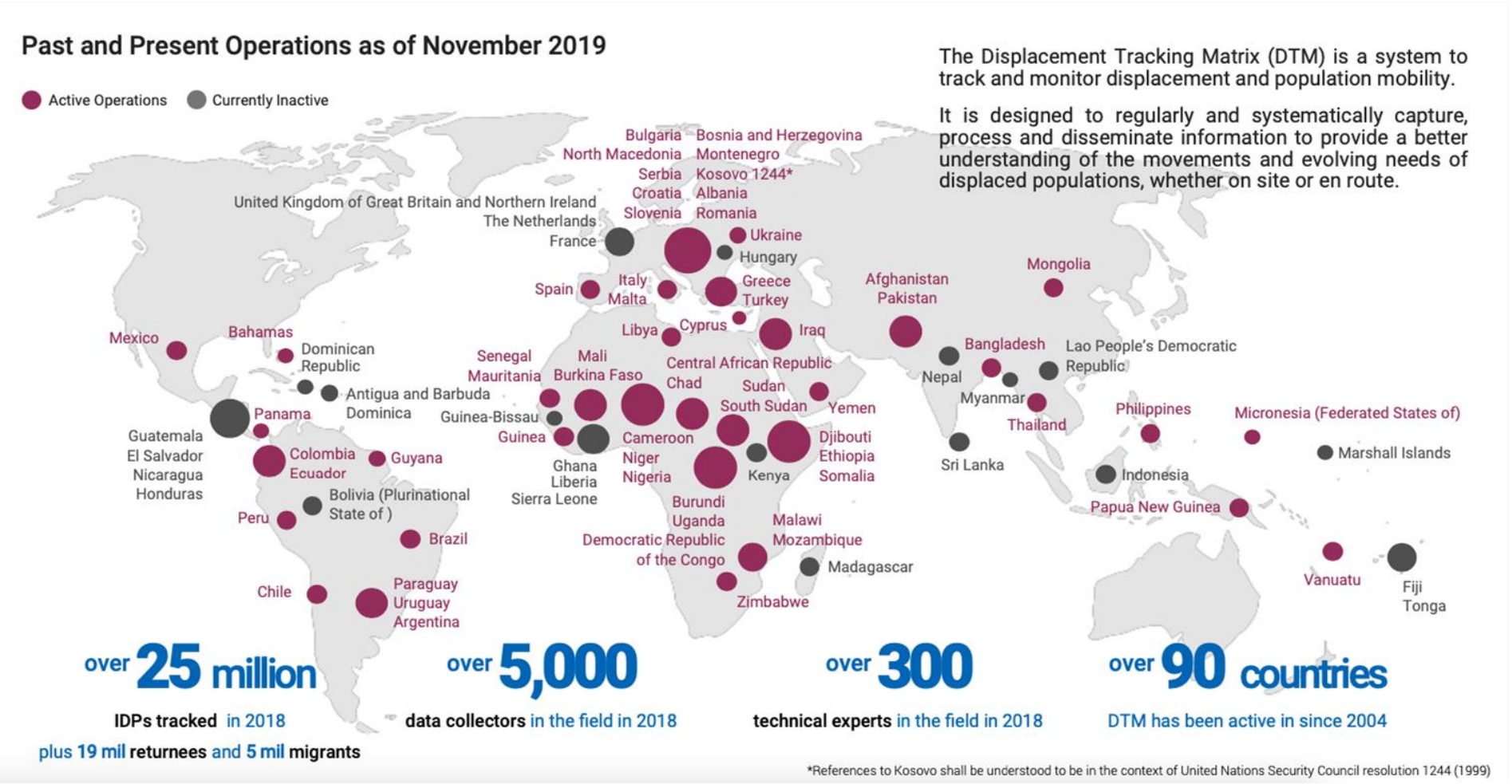
Categories of Energy Data collected - Global Level

	Lighting	Electricity	Cooking	Space Heating / Cooling	WASH	General
						
	Household lighting Streetlighting	Energy systems Basic connectivity	Cooking fuel Cooking stove	Winterisation Thermal comfort	Water pumping Solid waste treatment Final treatment of excreta	Priorities in terms of energy gaps Vulnerable groups with limited access Barriers for access
Information needs	• Lighting **sources** • **Technologies** used • Number of **hours** of lighting available	• Electricity **sources** • **Technologies** used • Number of **hours** of electricity available	• Cooking **fuel** sources • Cooking **stoves** used • Means of fuel and stoves **acquisition** • **Coping strategies** for lack of fuel	• **Technologies** used	• **Technology** used for water supply • **Lighting** technologies • **Technique** for solid **waste** disposal • Energy source for **final treatment** of **excreta** • Use of **biogas** as treatment for excreta	• **Priorities** in terms of energy gaps • Specific/ vulnerable **groups** with most limited access • Main **barriers** for access

IOM Global-level Data Collection

Leveraging the Displacement Tracking Matrix (DTM) & Multi-Sectoral Location Assessments (MSLA)

The Displacement Tracking Matrix (DTM)

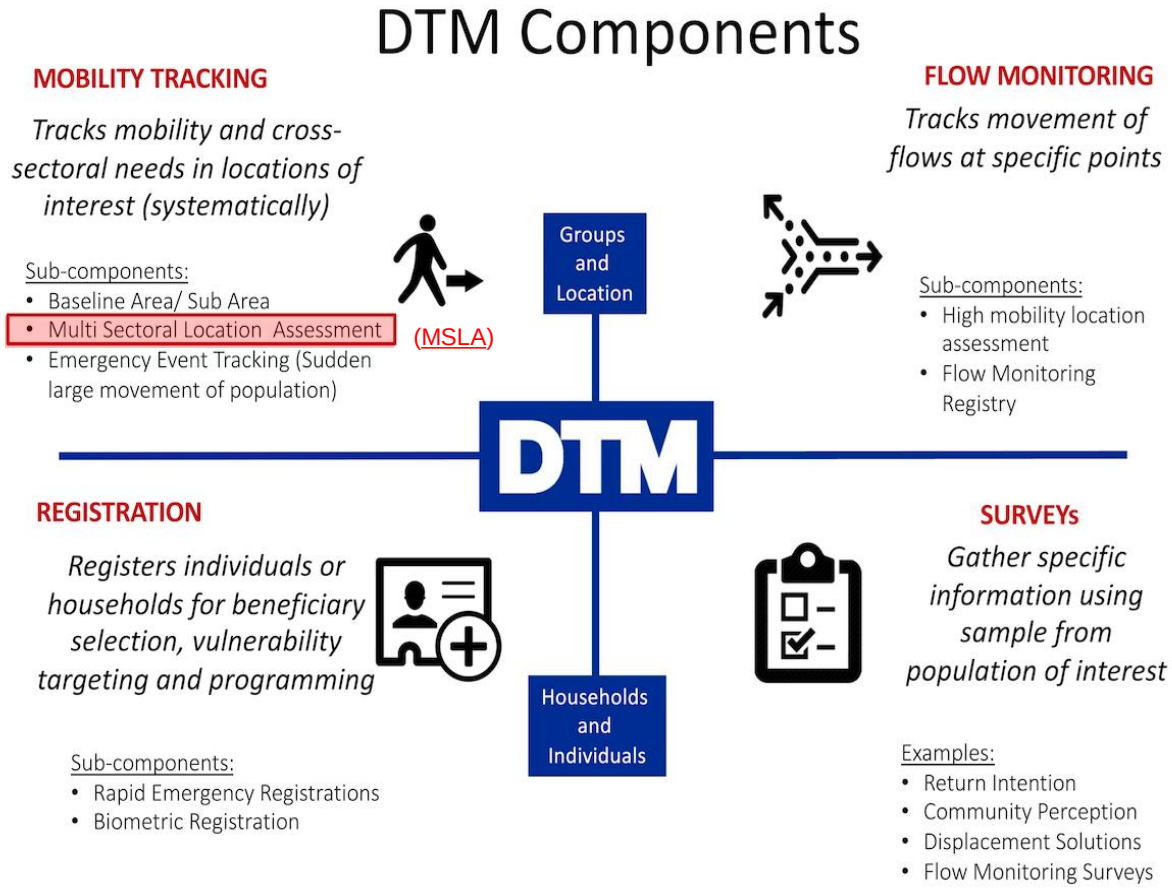


https://dtm.iom.int/

DTM and Energy Data

- Integrating energy-related data collection through the **DTM Multi-Sectoral Location Assessment (MSLA),** using key informant interviews

- Leveraging the existing DTM network of trained **enumerators** and strong **technical teams** operating in IOM country missions



MSLA Field Companion

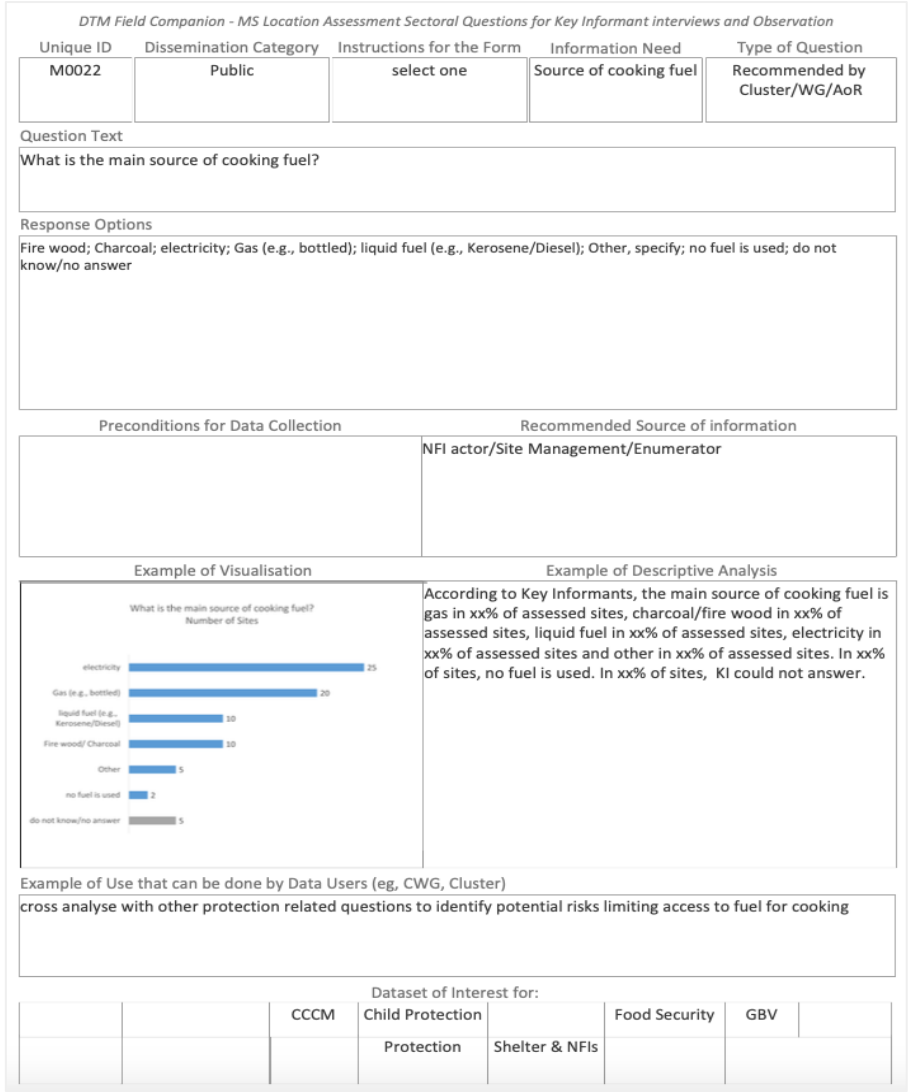
- A Multi-Sectoral Location Assessment “Field Companion” is a compilation of suggested standardized DTM questions to choose from and adapt according to the context. These questions are developed and agreed on by clusters and sectoral actors.

➔A dedicated Energy “Field Companion” has been developed

  - ◆ to **complement** existing Field Companions from other clusters
  - ◆ to suggest **standardized** energy questions and answers…
    … that can be translated into **harmonised** indicators across the humanitarian energy sector (e.g. GPA)

➔An **analysis framework** has been created

Example of an existing Field companion question related to energy:



DTM Field Companion - MS Location Assessment Sectoral Questions for Key Informant interviews and Observation

Unique ID	Dissemination Category	Instructions for the Form	Information Need	Type of Question
M0022	Public	select one	Source of cooking fuel	Recommended by Cluster/WG/AoR

Question Text

What is the main source of cooking fuel?

Response Options

Fire wood; Charcoal; electricity; Gas (e.g., bottled); liquid fuel (e.g., Kerosene/Diesel); Other, specify; no fuel is used; do not know/no answer

Preconditions for Data Collection	Recommended Source of information
	NFI actor/Site Management/Enumerator

Example of Visualisation

Example of Descriptive Analysis

According to Key Informants, the main source of cooking fuel is gas in xx% of assessed sites, charcoal/fire wood in xx% of assessed sites, liquid fuel in xx% of assessed sites, electricity in xx% of assessed sites and other in xx% of assessed sites. In xx% of sites, no fuel is used. In xx% of sites, KI could not answer.

Example of Use that can be done by Data Users (eg, CWG, Cluster)

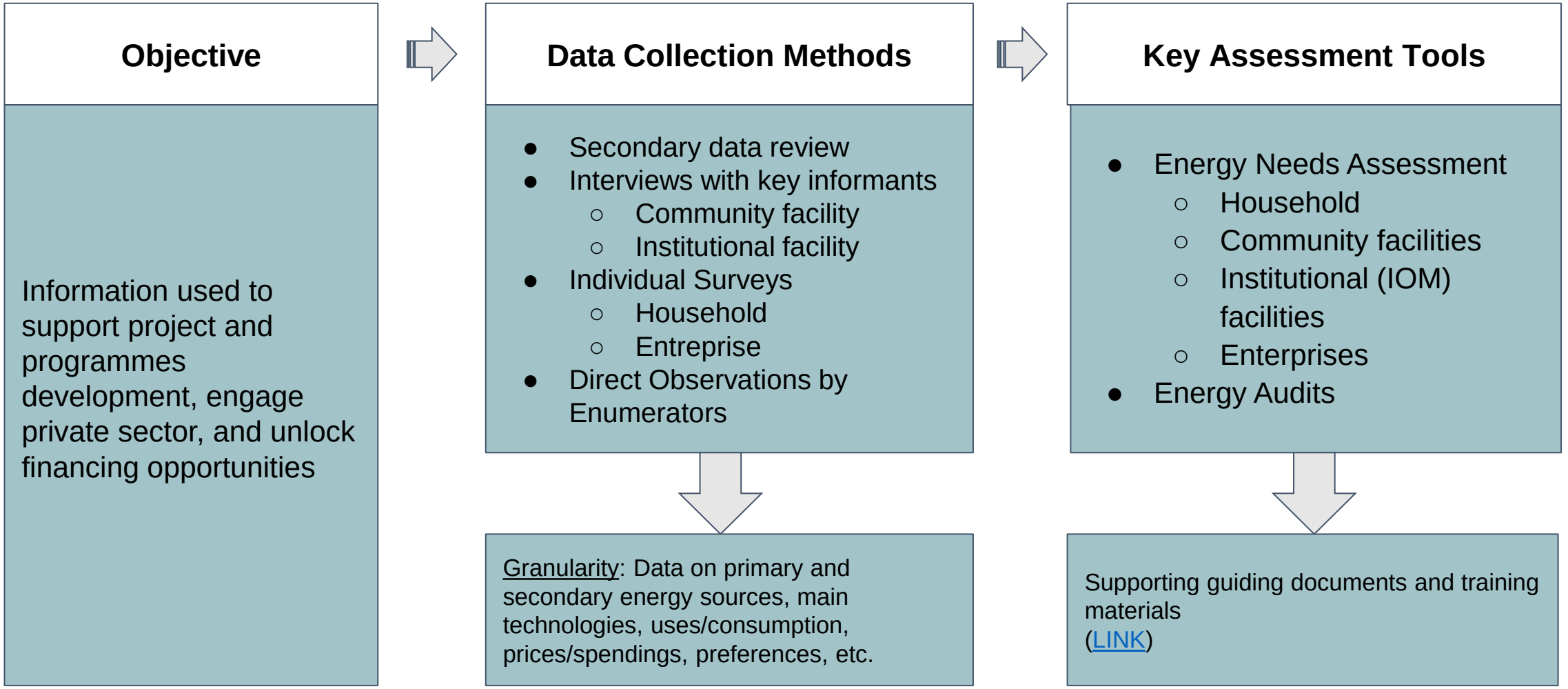
cross analyse with other protection related questions to identify potential risks limiting access to fuel for cooking

Dataset of Interest for:

		CCCM	Child Protection		Food Security	GBV	
			Protection	Shelter & NFIs			

The Project Level

The Project-level Framework



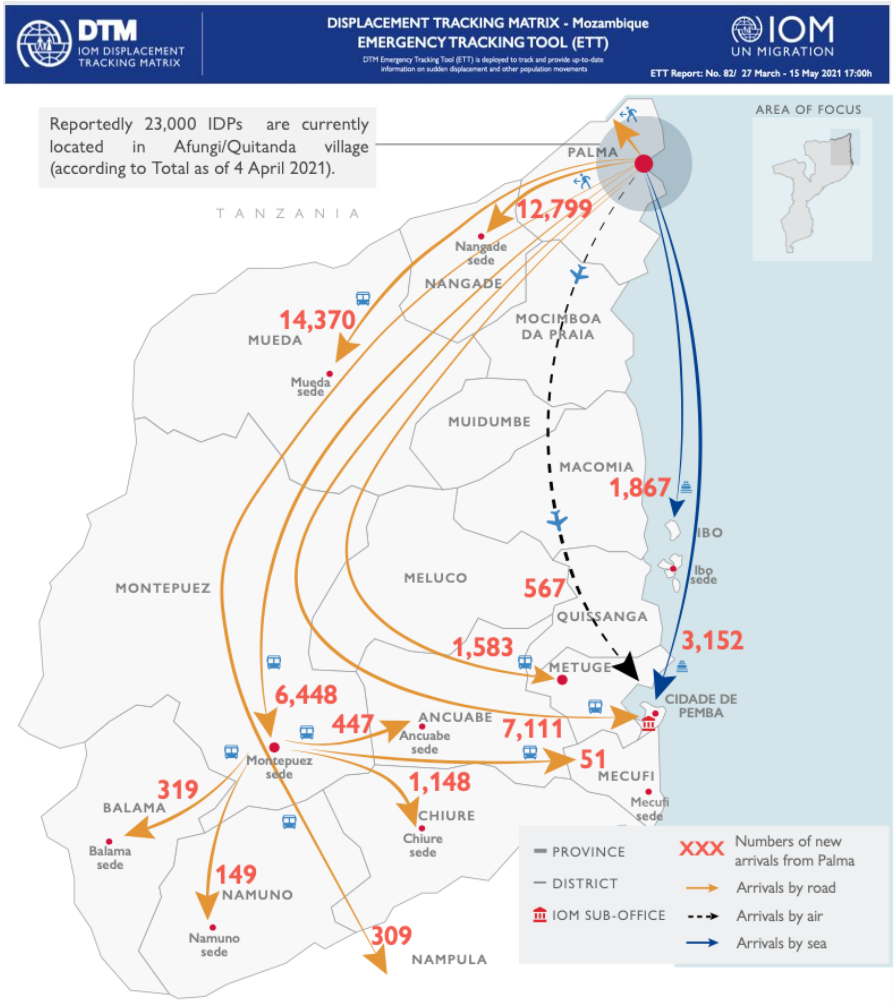
Categories of Energy Data collected - Project Level

	Household	Community	Institutional	Enterprise
Lighting	Access Sources Spendings Hours of consumption Streetlighting quality	Access Sources	Sources Spendings Hours of consumption	Access Uses Spendings Hours of consumption
Electricity	Access Sources Uses and appliances Spendings Unit price Hours of consumption Means of payment	Access Sources Uses and appliances Spendings Unit price Distance to grid Impacts and constraints on facility operations	Sources Uses Spendings Hours of consumption	Access Sources Uses Spendings Hours of consumption
Cooking	Access Sources Spendings Amount of fuel consumption Means of acquisition Coping mechanisms Time spent Location	Access Sources Spendings	Sources Spendings Hours of consumption	Access Sources Spendings Hours of consumption
Space Heating / Cooling	Access Sources Spendings	Access Sources Spendings Importance for facility operations	Access Sources Unit Price Hours of consumption Importance for facility operations	Access Sources Unit Price Importance for facility operations
WASH		Technology used for water supply Lighting technologies used in and around WASH facilities Technique for solid waste disposal Energy source for final treatment of excreta Use of biogas as treatment for excreta		
General	Problems encountered with energy products Desire to buy technologies if available Preferences for energy technologies Main barriers to access Main priorities in terms of energy services	Priority for improvement Need for improvement in supply Energy system adequatness Issues with existing appliances Unused appliances	Priority for improvement Need for improvement in supply Energy system adequatness Issues with existing appliances Unused appliances	Priority for improvement Need for improvement in supply Energy system adequatness Issues with existing appliances Unused appliances

Household Assessments

Example: Mozambique Energy Access Pilot

- Mozambique was the **first pilot country** for the **DTM MSLA Energy Module**, conducted between March and April 2021
- Data was gathered as part of the regular DTM data reporting on the ongoing ***"Palma Crisis"***
- **Second** data collection exercise using the DTM MLSA process that **specifically included energy-related questions in Mozambique**
- **11 Questions** from the 26 suggested in the Energy Field Companion were included
- The assessment was conducted through key informant interviews in **25 locations** in the **Province of Cabo Delgado** and **1 location in Nampula**
- In total, the energy assessment covered **91,310 individuals, including 23,335 households** present in these 26 locations



Example: Mozambique Energy Access Pilot

Country: Mozambique
Region: Cabo Delgado and Nampula
Survey Period 13.04.2021-23.05.2021

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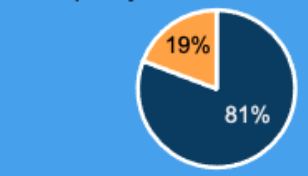
Summary Report on DTM Multi-Sectoral Location Assessment (MSLA) Energy Focus n°02

Sites
26 Sites assessed

Population
91,310 Individuals in sites

Women 27%
Men 21%
Children 52%

Site Classification



WASH

50% of the locations reported handpumps as main approach to power water supply,

62% of the locations reported no sources of lighting in and around latrines/toilets

SPACE HEATING/COOLING

In 96% of the locations, households do not have access to heating solutions

In 96% of the locations, households do not have access to cooling solutions

LIGHTING

In the majority of the locations (69%), no one (around 0%) has access for at least 2 hours/night to lighting at the household level (MTF Tier 2).

In 77% of the locations, no street lighting is available for at least 4 hours per night (MTF Tier 2)

In 50% of the locations, not enough individual lighting solutions (e.g. solar lanterns, torches) for each family member is one of the major problem for access to household lighting

In 39% of locations, people have no access to lighting source, and in **31%** of the locations, solar lanterns are used as primary lighting sources

COOKING

In 62% of the locations, **charcoal** is primarily used as cooking fuel while in **38%, wood** is used primarily. This trend can be observed both in temporary center and relocation site.

In 100% of the locations, three-stone/open fire cookstoves are most commonly used as primary cooking stoves

In 100% of the locations, households primarily collect their cooking fuel (wood) individually

ELECTRICITY

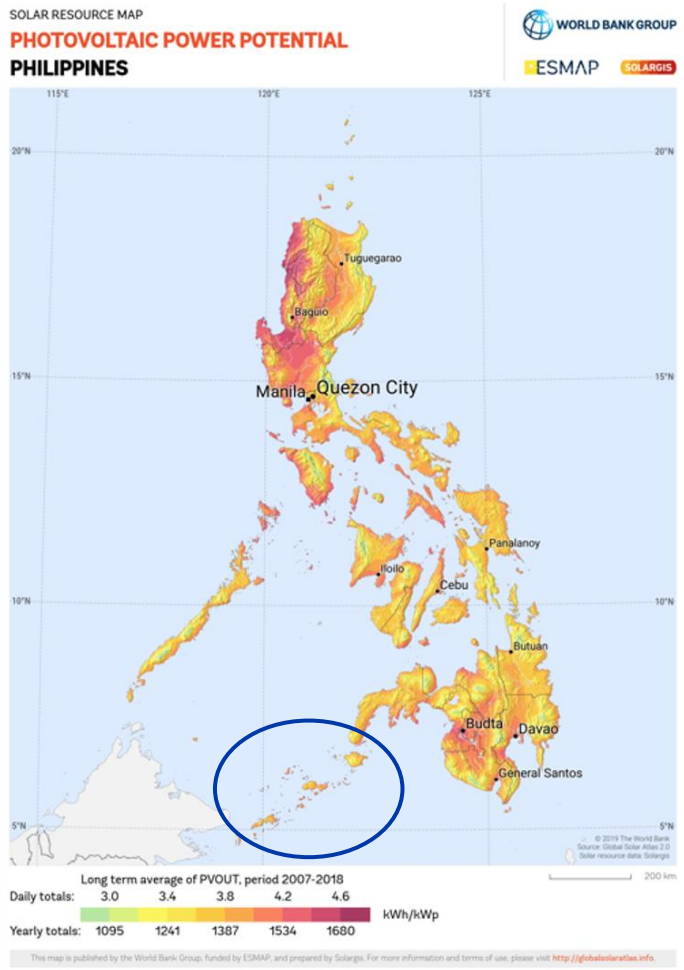
61% of the locations have no electric power, while **23%** use solar lantern as primary electricity source

In the majority of the locations (88%), no one (around 0%) has access to electricity at the household level for at least 4 hours/day and 2 hours/night (which would correspond to MTF Tier 2)

Community Facility Assessments

Example: Solarization of Rural Health Centres in Mindanao (Philippines)

- Remote island provinces of Basilan, Sulu and Tawi-Tawi in the conflict-torn Mindanao region, one of poorest and most underserved parts of the Philippines
- Mostly on-site power generation through diesel and frequent grid power outages, with instability having impacts on the reliability of fuel delivery and the cost of fuel. Direct effect on health facilities having intermittent capacity to provide life-saving health services
- ⇒ The government has prioritised the solarisation of health facilities, and IOM facilitated this project, starting with an **in-depth energy audit of 17 health facilities,** including 15 Rural Health Units and two District Hospitals
- ⇒ Audits, which were **done by regional IOM staff after completing a remote training program**, supported the creation of the project tendering documents and related TORs



Institutional Facility Assessments

IOM Approach - Part 1:
Country-level Shortlisting based on biggest footprint and needs

344 IOM facilities in 160 countries reported on their greenhouse gases

Phase 1
Choice of objective

Phase 2
Quantitative and qualitative metrics

Shortlisted IOM Country Offices

Phase 3
Preliminary Assessment & secondary data

Selected Sites

Greening the Blue - IOM Environmental Inventory Data

Objective 1: Reduce **overall carbon footprint** of IOM's facilities and prioritize countries and sites with biggest opportunities to decarbonise their operations

1. Absolute carbon footprint (kg Co2e) related to electricity purchased and stationary combustion

- Distance to the grid
- Number of displaced people that the facility serves
- Strategic importance for logistics, distribution, etc.
- Buildings ownership

Objective 2: Support IOM country offices in **in fragile or high risk context** transition to reliable and clean sources of energy

A. Geographic isolation/remoteness (island nations, landlocked)
B. Climate vulnerability and risks (climate change and extreme weather)

- Ease to access site
- Stability of the context
- Stage of emergency
- Other facilities from UN branches and NGOs in the direct surroundings

In-depth Energy Assesments at the IOM Facility level

IOM Approach - Part 2: "From Assessment to Investment"

Preliminary Assessment

Country level:

- Overview of energy sources, uses and consumption
- Information about country-level energy procurement policies
- Energy management practices & capacity

Site level:

- Energy sources
- Fuel supply availability
- Power reliability
- Buildings owned/leased
- Future plans
- Site accessibility

In-depth Assessment

Similar approach to community facility audit, but more **tailored** to institutional buildings and operations

- List of appliances (wattage, efficiency) and usage (schedule).
- Energy management practices (staff behaviour, responsibilities for repair and O&M).
- All relevant fuel and/or electricity costs (including O&M, transport, and supply fees) and utility bills.

Next Steps

Select top sites in each pilot country with "low-hanging fruit" and biggest opportunities for impact

Create *business case (economic & environmental analysis)* and *recommendations* for:

- Decarbonisation of energy systems and infrastructure
- Transitioning from fossil fuel sources to renewable sources
- Implementing best practices for energy management and efficiency

Look at **innovative financing solutions** to support energy interventions and projects

Framework Components, Tools and Next Steps

The Supporting and Guiding Documents

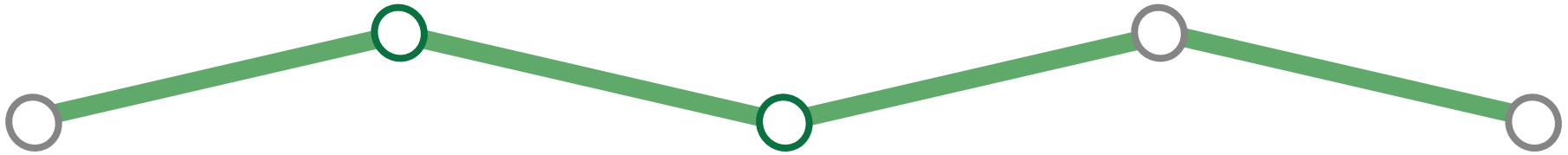
Category	Type	Item Name	File type
All	Guiding document	Summary of Framework Components	MS Powerpoint
All	Guiding document	Analysis Map and Decision Tree Tool	MS Word
All	Guiding document	Navigating the Framework - Key Considerations and Design of Fit-for-Purpose Energy Assessments	MS Word
All	Assessment Tool	Global-level and Project-level Questions, Answers and Indicators	MS Excel
Community Facilities	Assessment Tool	Energy Audit for Health Facilities	MS Excel
Community Facilities	Assessment Tool	Energy Audit for Generic Facilities	MS Excel
Institutional Facilities	Assessment Tool	Preliminary Assessment for Institutional Facilities	MS Word
Institutional Facilities	Assessment Tool	In-depth Energy Audit	TBD
All	Training materials	Training for DTM Enumerators	MS Word
All	Training materials	Training for DTM Officers	MS Word
Community Facilities	Training materials	Training for Energy Auditors of Community Facilities	MS Word, Videos
All	Other Resources	Country Data Repository	MS Excel
All	Other Resources	Database of Energy Tools, Resources, Datasets, Events and Training	MS Excel

LINK TO GOOGLE DRIVE FOLDER

Next Steps

IOM plans to pilot global level energy assessments through DTM in 6 pilot countries during Q2-Q3 of 2021

IOM plans to pilot project level energy assessment for institutional facilities in 3 pilot country missions during Q3-Q4 of 2021



IOM has started to work on *innovative financing solutions* for energy access projects and institutional decarbonisation

Data will be shared with the humanitarian energy community and hosted on the DTM website (and GPA Data Platform, if possible)

Lessons learnt from institutional decarbonisation and innovative financing will be shared with the humanitarian energy community

United Nations Institute for Training and Research

GLOBAL PLATFORM FOR ACTION

7 AFFORDABLE AND CLEAN ENERGY

Coming Next after the break

Interactive Exercise using Miro

During the break, please open the link to access the board :-)

https://miro.com/app/board/o9J_lDuHE9c=/

Stage I	Stage II	Stage III	Stage IV	Stage V	Stage VI
Define Objectives; Review Preliminary Considerations	Choose the Right Level of the Framework to Start With	Identify the Pathway Most Suitable for Data Collection in Your Organisation	Collect Relevant Energy Data	Analyse Data Collected	Make an Informed Decision; Proceed to Solution Design or Collect Additional Data

Steered by

Supported by

Thank you for your attention

Please feel free to contact us

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Steered by

Supported by

Coffee Time

- 5 minute break.
- Switch off your cameras and mics but please stay connected to the call.

Interactive Activity: Break Out Rooms

- Interactive activity: extracting value from IOM's framework for other organisations

- 2 breakout rooms for discussions facilitated by Adam Ostaszewski and Anais Matthey-Junod
- 45 min

- Closing: reflections and next steps for IOM data collection (15min).

Reflections

- Closing: reflections and next steps for IOM data collection

- Group discussion and feedback from the break-out rooms
- 15min

Thank-You and Closing

- Action points and next steps
- Looking forward to next call later in the year: September or December.
- Any suggestions of key topics or people who would like to present during the next meeting, please let us know.