

Somalia Databases and Beneficiary Registries for Cash Transfer Programming

An Overview of the Beneficiary Registration and Data Management Practices of NGOs, UN and Government in Somalia



World Food Programme Somalia

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Background

Somalia receives significant amounts of humanitarian and development assistance every year. While poverty, vulnerability and food insecurity are high in general, there are spikes in the need for immediate humanitarian assistance to save lives during the severe droughts that recur every five to seven years. Those years require massive donor investment and scaling up of humanitarian actors' presence and operations on the ground. Continuous low-level sectarian conflict, violence and political instability, as well as large-scale internal displacement have also eroded community support systems' capacity and made it difficult to sustain progress toward reducing poverty, vulnerability and the need for assistance.

Nonetheless, the humanitarian community has taken important steps in recent years to facilitate a harmonisation of approaches and targeting of beneficiary populations, which should help make the allocation of donor resources more efficient and effective, while at the same time enabling more long-term programming and evening out assistance between spikes and valleys. The first such step has been a general move to cash-based assistance, which is widely considered both fast and effective in the Somalia context, given the resilience and responsiveness of markets and the relatively easy access to financial services for the vast majority of the population¹. The second important area of progress has been the revival and effective use of coordination fora such as the Cash Working Group, which has more than 80 members and represents a very high percentage of the humanitarian cash transfers reaching beneficiaries in Somalia. Finally, enabled by the enhanced collaboration between actors on the ground, NGO "consortia" were formed to pool resources and create overarching structures for cash transfers and resilience-building programmes. Meanwhile, government capacity (including nascent digital registries) and the role of government in prioritising the flow of resources to beneficiaries is growing.

Funded by an ECHO grant on social protection in fragile contexts, WFP commissioned this small study to take stock of the beneficiary registration practices and systems being used by the main humanitarian/resilience actors in Somalia, as well as government actors that maintain databases of vulnerable households and individuals in Somalia. This exercise falls within the context of WFP's wider efforts on social protection in Somalia. A number of studies in recent years have referenced the opportunities for coordination of caseloads and harmonisation of assistance between the large-scale humanitarian actors, whose joint experience can provide important learning for the development of the cash component of a future national safety nets system.²

¹ It should be noted that other forms of assistance (e.g. in-kind food rations, nutritious foods to combat malnutrition, or NFIs) remain relevant and continue to play a key role in humanitarian response in Somalia.

² See for example: "Somalia - In pursuit of a safety net programme in the short term paving the way to a social protection approach in the long term: Issues and options" - ASiST Final report 23rd November 2017, retrieved at https://www.dai.com/uploads/ASiST%20Report_Somalia_Final-report.pdf

One of the key building blocks for such harmonisation would be to coordinate beneficiary registration efforts, most notably to collect beneficiary data in a way that allows beneficiaries and households to be clearly identified across multiple databases and registration systems. This would pave the way towards being able to establish what each household will have received during a given period from which humanitarian or other actor.

Methodology and responses received

In order to collect the data analysed below, a questionnaire³ was assembled that looks at existing registries for the delivery of assistance with a holistic view, covering all the programmatic elements enabled by the technology, which in turn also affect the technology and how it is deployed. In order to reach as large an audience as possible, the questionnaire was distributed to the membership of the Somalia Cash Working Group.

The questionnaire consisted of the following sections:

- Programme/Intervention Summary, which asked questions about the size of a programme or intervention in terms of its coverage, which regions of Somalia it is active in, what type of benefit it transfers and which delivery mechanism is used (e.g. mobile money or in-kind food, specifying also the partner used to effect the transfer);
- Targeting, asking questions about the targeting method and process used for the programme in question and about the indicators and eligibility criteria for inclusion in the programme;
- Registration Process, looking at how individuals/households are registered (e.g. whether through large-scale registration sites, through household visits or other means), how long it takes on average per household and which tools are used in the process;
- Registration Data Captured, requesting details on the precise data points captured for each individual or household registered and on any biometric data that is collected;
- Use of Mobile Phone Numbers, asking whether mobile phone numbers are captured and whether they can be attributed to a particular phone holder;
- Enrolment of registered households/individuals into transfer interventions, which asks whether organisations use existing household data to enrol households or beneficiaries into new programmes, and whether additional data is captured at that stage;
- Data verification/validation, looking at tools and procedures to identify duplicate beneficiary entries and perform other data quality checks;
- Keeping data up to date, which invites organisations to describe the approach they take to keeping beneficiary data up to date;
- Beneficiary data management solutions, which asks more detailed questions about the solutions used during beneficiary registration and to manage beneficiary information;

³ The questionnaire is attached as Annex II.

- Data handling and storage policies, asking about informed beneficiary consent to storing and possibly passing on their personal data and whether the organisation has a policy on data retention;
- Use of beneficiary data in operations, which looks at how beneficiary data stored in systems is used to generate distribution or payment lists, interact with financial service providers and possibly biometrically authenticate the beneficiary at the point of transfer.

In parallel, to inform the study on Somalia's particular context and on practices and constraints perhaps not clearly brought out by the responses to the questionnaire, a range of interviews⁴ with key stakeholders and subject matter experts were conducted both in Somalia and in Nairobi.

The following organisations responded to the questionnaire (see Annex 2) or provided documentation on their registries:

- Puntland Ministry of Interior (IDP Affairs)
- African Disability Association
- Cash Consortium (group of NGOs)
- CRS
- FAO
- Somalia Red Crescent
- UNHCR (also provided inputs on the National Commission for refugees and IDPs - NCRI)
- UNICEF
- WFP

A summary table of the registries and the programmes they support can be found in Annex 1.

Registries vs. beneficiary lists

It is important to distinguish between databases that are designed to be maintained over time and contain both *actual* and *potential* beneficiaries of assistance (which can be referred to as registries) and those data sets that only contain the details of individuals and households who were registered to receive assistance. There are a number of differences between the two types of database as a direct result of the difference in approach and intent behind them:

- A registry that is designed to support multiple programmes over time (or even concurrently) needs to be designed in such a way that association of a person or household with a programme is either explicitly recorded as a separate piece of information (rather than simply inferred from that person's or household's presence in the dataset) or is recorded in a separate system, e.g. an individual programme's system to manage beneficiaries and transfers for that programme;

⁴ A list of the interviews conducted for this report can be found in Annex 2.

- A registry can and often intentionally will include individuals and households that do not receive any assistance. They may be included in the registry with a view to potentially including them in a programme later in time, or be able to scale up during a humanitarian response;
- In contrast, a database that simply accrues programme beneficiary data over time is typically not designed to enable a review of who was a beneficiary of which programme at a given point in time and which assistance they received.

In humanitarian contexts, fully-fledged registries remain the exception. In some cases, organizations register certain populations in an area (e.g. shock prone) or members of a target group (IDPs, etc.) and enrol beneficiaries for programmes based on criteria specific to the programme.

Targeting of households and individuals can occur at various stages of the process, and take place mostly through community based and led targeting. While agencies are moving from spreadsheets with beneficiary lists for their individual programmes to beneficiary databases, very few have gone as far as separating the database of individuals and households from the programmes themselves. That kind of systems “architecture” is still more typical of nationally-owned social protection systems.

In the rest of this study, when referring to any one dataset, an effort will be made to specify which model that dataset fits and whether the numbers referred to are active beneficiaries or a mix of active, past and potential beneficiaries.

Other significant registries not covered by the study

During a recent meeting between various UN agencies and the World Bank in Nairobi (data collection for the present study had concluded), the World Bank presented preliminary results of a study by its Digital Development Unit on existing ID systems in Somalia. The study’s⁵ aim was to understand not only which functional and foundational ID systems exist in Somalia and what their size and coverage was, but also to evaluate the potential of harmonising them.

The study identified six major ID systems currently used in Somalia:

1. National passports issued by the authorities in Banadir, Puntland and Somaliland
2. NCRI – IDP registration by UNHCR
3. Somali National Army Registration by UNOPS
4. 2016 electoral college lists by the Federal Government
5. Somaliland voter registration by Somaliland Government
6. SCOPE cards by WFP (details included in the present study)

Apart from the NCRI’s and WFP’s data, the present study did not consider the data sources in this list (items 1, 3, 4 and 5). However, based on data shared by Puntland’s Ministry of Interior with the author of the present study, we would argue that Puntland’s IDP database

⁵ *Towards a Robust, Inclusive and Responsible Digital ID System in Somalia*. World Bank, 2018.

(containing some 150,000 IDP records) as well as various humanitarian actors' databases (beyond WFP's) should be added to the above list. Details on the humanitarian actors' data can be found in the analysis below.

The World Bank report notes that there is no 'citizenship act' in place, which should inform and regulate ID issuance and that none of the six registries above are interoperable. A key similarity between all the six registries is that they are operational registries. Moreover, by definition and given their function, these registries a) collect data at individual and not at the household level; b) collect and store a minimal number of variables (name, surname, age and gender and mobile contact).

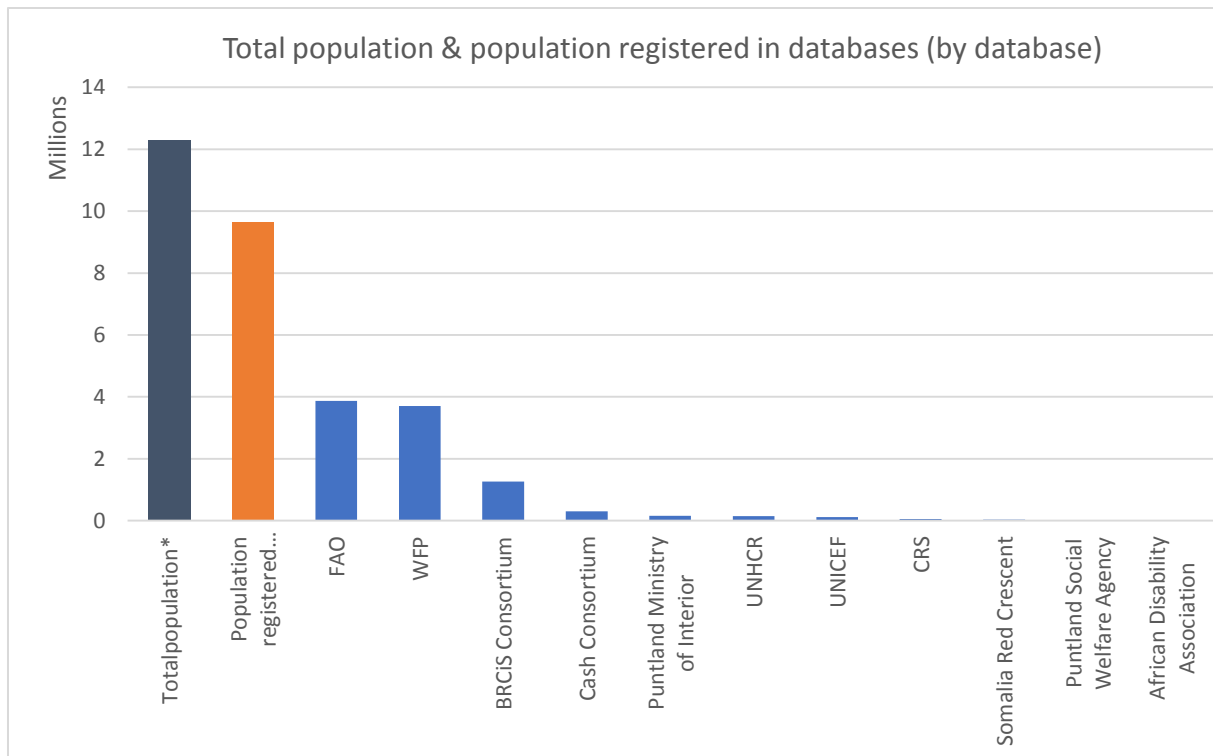
The Bank is considering developing a registry around access to financial services – presumably this would be based on introducing “know your customer” or similar requirements for all digital financial transactions- which, while supporting systems building, would at least initially exclude those Somalis who do not currently participate in the formal banking sector.

Analysis and overview

Coverage of databases

Across the organisations analysed, the humanitarian assistance databases (including those registering IDPs) in Somalia reach adds up to approximately 5.7 million individuals – equating to nearly 50 % of UNFPA's 2014 population estimate⁶ of 12.3 million Somalis overall. It is important to note that the individuals contained in these are likely to include a certain proportion of duplicates (individuals registered by more than one programme across different organisations). However, even if accounting for some percentage of duplicates within that overall number, and as most of them are actually registered under the same system (SCOPE) thereby eliminating the risk of duplication for about 4.2 million, it appears that the large-scale humanitarian registration exercises that are conducted in Somalia on a regular basis have the potential collectively to produce valuable data on an important part of the Somali population given their reach and coverage.

⁶ <https://web.archive.org/web/20161003235053/http://somalia.unfpa.org/sites/ArabStates/files/pub-pdf/Population-Estimation-Survey-of-Somalia-PESS-2013-2014.pdf>



* Total population as estimated by UNFPA in 2014

** The total number of people registered in databases reflects the gross sum of all individuals registered in single databases. Most likely there are duplicates in this sum. Households are considered to consist of 6 individuals.

Most agencies currently register only one individual per household. Should they register all household members, the total number of people registered in humanitarian databases in Somalia would reach over 9.5 million people, or over 70 percent of the current population (based on an average 6 people per household estimate), without counting possible duplicates between databases.

Of all the respondents, only UNHCR and WFP systematically register every member of each household. In UNHCR's case, this includes fingerprints and iris scans for all members above five years of age. WFP registers all household members but collects fingerprints only for benefit collectors and alternates.

The geographic areas covered by the respondents represent most of Somalia, except those areas that are inaccessible or with limited accessibility due to security constraints⁷.

Type of assistance delivered

Perhaps not surprisingly, most respondents' assistance is predominantly cash, given that the survey mainly included the Somalia Cash Working Group. This does, however, appear to be in line with the overall composition of most humanitarian assistance and some resilience programming in Somalia. WFP and FAO also use voucher and in-kind transfers, though their cash-based transfers are dominant. This is reflective of a consensus among practitioners and

⁷ Inaccessibility has various degrees: in many instances, arrangements are made to use locally acceptable contractors, low profile, with appropriate risk management measures including call centers, third party monitors, satellite imaging for CFW sites, to ensure that very few areas are completely inaccessible.

donors that cash is appropriate and effective in the Somalia context, given the resilience and responsiveness of markets and the availability and convenience of cash transfer services in most parts of the country. Most agencies appear to rely on mobile money and money agent services/banks.

Targeting processes

Approaches to eligibility determination

Most respondents use geographic targeting following the integrated phase classification system and coordination with other actors on the ground to determine the geographical areas where assistance will be provided. A majority combine this with community-based targeting (CBT) approaches to determine which households will be targeted within this specific location. In the Somalia context characterized by extremely high poverty and vulnerability, including the community into the selection of future beneficiaries to decide who is more vulnerable than others is a common and well-established approach.

Apart from the programmes targeting more specific groups (e.g. fishermen in FAO fisheries programmes), the inclusion criteria quoted by respondents fit the larger drivers of vulnerability in the Somalia context, i.e. the loss of livestock, lack of access to wage labour or employment, and lack of access to remittances or assistance from the community. Being an IDP in Somalia is also a source of continued vulnerability, including for “protracted” cases. Respondents also mention the presence of pregnant or lactating women in the household, orphans and disabled and chronically ill family members. As part of its extensive registration interviews, UNHCR also considers and asks about many other factors that may affect an individual’s or household’s vulnerability. Other databases also take into account vulnerabilities in terms of disabled, women headed households (as a product of multiple questions), chronically ill, elderly and orphans, and survivors of gender based violence as well as residency status such internally displaced or refugees.

Registration and enrolment

The approaches to eligibility determination adopted by different organisations affect the registration and enrolment processes required for these to be implemented, and thus the data collected.

An important finding is that, for many of the organisations doing cash based transfers, the registration and enrolment phases are effectively the same, meaning data is only collected *after* eligibility has been determined – on beneficiaries or potential beneficiaries only. This has a wide variety of implications, including the fact that:

- Little data on non-beneficiaries is collected and retained, limiting the availability of data for future targeting efforts or possible scale up in case of shocks;
- Minimal data is collected and stored, as the opinion is that there is no immediate added value to retaining variables on household/individual conditions and vulnerabilities. However, if collected, such data could be used at least for preliminary targeting/potential beneficiary population sizing efforts relying on the database

alone, and potentially would be helpful for scaling up a response at the time of a shock.

Two exceptions are WFP and UNHCR. UNHCR registers all refugees based on their status as a protection measure, while WFP registers potential beneficiaries into its SCOPE database as a preparedness measure before and beyond people who are formally targeted for support under a specific intervention.

The approach to registration and enrolment for the majority of organisations is to organise periodic large-scale exercises at sites set up specifically for the purpose of responding to humanitarian crises⁸. An exception to this was presented by the ‘Cash Consortium’ Group of NGOs, which registers beneficiaries adopting a door-to-door approach.

Most organisations rely on sensitisation through communities and during registration itself. This is mostly done verbally, but some organisations also use messages broadcast via local radio and other media to inform about upcoming registrations.

Respondents reported that registration takes on average about ten minutes per household. UNHCR registrations take longer because of the long and detailed questionnaire being administered.

Data management: entry, verification, validation, storage, updating

Those organisations maintaining larger databases appear to have moved away from registering on paper or even using Microsoft Excel and have instead embraced dedicated data collection applications for mobile devices. These dedicated data collection tools can validate entries (e.g. length of phone number) or restrict entry options (e.g. via dropdown menus), improving data quality. However, some agencies continue to use Excel and even paper-based registration, relying on digitisation of the data at a subsequent stage, which can be problematic as it introduces a higher potential for errors.⁹

All respondents ask for respondents’ consent to recording their data, and all of them inform of the specific purpose that data is being collected for. One respondent reported using a physical consent form on which beneficiaries record their consent to having their data collected and stored. Others ask beneficiaries to record their consent via thumb prints, but most seem to rely on verbal consent from the beneficiary.

⁸ For a discussion on the strengths and weaknesses of census survey vs on-demand approaches to registration – and their data implications, see Barca (2017).

⁹ One key difference between form-based data collection (the way most dedicated registration applications work) and using spreadsheets for registration is that dedicated applications “lead” the registrar through the registration process and typically allow only one individual’s or household’s details to be added per form. That form is then saved and the registrar moves on to a new, blank form. In contrast, spreadsheets typically require the registrar to make an effort to stick to the individual line allocated to a person or household, which makes it much easier to accidentally enter data in a cell belonging to a different household or individual. It is also more difficult to programme data validation for fields in spreadsheet than when programming mobile data collection applications. Especially when considering crucial fields such as ID numbers, mobile phone numbers or bank account numbers, data entry errors can have far-reaching consequences.

In terms of data verification, validation and management, the following issues also emerged (see also section below on ‘identifiers’):

- Several **organisations have tools that allow them to check for duplicates across their databases**, not just within one programme.
- There was **little evidence of data exchange across organisations for the purposes of verification/validation**. However, WFP reported interfacing with UNHCR’s and FAO’s systems for purposes of beneficiary data imports.
- Interestingly, moreover, the **majority of organisations did not have the capability to cross-check newly enrolled beneficiaries versus beneficiaries enrolled in previous years**. This capability is critical if an organization is to be able to report that the same household received multiple types of assistance (or even the same type of assistance over multiple periods). Again, this is a capability that would typically be expected from national social protection systems but is still relatively new to humanitarian contexts.
- Most respondents’ **organisations appear to be in the process of developing dedicated policies on data handling and storage, while some of them already have them in place**.

The updating of beneficiary rolls is done at very different intervals depending on respondents’ organisations. Some organisations review beneficiary lists as frequently as once a month, whereas others seem to rely on the frequency of fresh registrations (discarding the previous data set and drawing up completely new beneficiary lists, see below) to keep their data up to date. Some agencies also update records based on beneficiary feedback collected by help lines/desks.

For the most part it appears that registration is a “one-off” for most organisations and that *the data is not systematically updated or verified* until the next registration – conducted *typically once or twice a year*. This is understandable given the significant logistical and security constraints. The organisations using call centers have a more convenient way to verify and correct data in a punctual way within their databases. In such contexts, it becomes all the more important to enable beneficiaries and other community members to contact the implementing agencies to allow exclusion errors to be addressed or report changes in their circumstances. Very few organisations have the systems to allow them to identify and enrol beneficiaries from an existing pool without having to register them afresh.

Data variables captured and stored

The data that organisations capture during registration/enrolment naturally relates to the purpose for the data. Most organisations reviewed collect data on eligible beneficiaries only, and mostly in order to them to make the intended transfer and satisfies their reporting needs. Most respondents reported collecting only names, dates of birth and gender, as well as who is the head of household and a few details about the household overall such as the location they live in and the “principal recipient’s” phone number. Few organisations, such as FAO, also record beneficiaries’ livelihoods and relevant assets.

Most of the respondents have four common variables across the board, which are the name of household head, HH size, location and cell phone number. These common

variables could be the basis of building a new biometrically backed database, which is also the conclusion of the World Bank digital ID study.

Unique identifiers

A “unique identifier” is an attribute of a record in a database that makes it unique. If several databases use the same unique identifiers these are able to ‘communicate’ with each- other, either through full interoperability or through other approaches to data sharing. The advantages of this include the potential for:

- Deduplication;
- Better monitoring, reporting and planning (e.g. of trends across organisations and over time);
- Improved coordination;
- Improved efficiency, e.g. via pre-population of data, improved validation, etc.

Across the organisations reviewed, each had its own approach to creating a unique identifier. Organisations have either adopted a procedure to manually assign a unique identifier to each individual or household (e.g. this could refer to the date and location of registration, plus a serial number), or they use software that automatically assigns a unique number to the person or household.

In a context like Somalia, where there is no national ID or a civil registry such an ad-hoc approach (each organisation creating its own ‘functional ID’) is mostly inevitable. This is exacerbated by the fact that people’s names are often very similar, complicating the potential for algorithmic matching across databases. However, this does not mean that better identifying individuals and households is impossible with existing data.

Biometrics

One solution to the identification problem is the collection of biometrics, which are unique for each person.

Of the agencies that responded, only UNHCR and WFP collect fingerprints systematically and during all registrations. Of the two, only UNHCR collects fingerprints and iris scans of all registered individuals ages five and above, whereas WFP only collects fingerprints for those individuals expected to act as “recipients” (benefit collectors for the household). This is because WFP’s main use for the fingerprints is to transfer them to the electronic benefit cards it distributes to its beneficiaries, which allow them to authenticate themselves biometrically at the point of transaction (benefit collection). Other agencies collect between two and 10 fingerprints (very little collection of iris scans thus far), but typically only for the head of household.

What this means is that only UNHCR has sufficient biometric data to reliably “de-duplicate” all of the individuals in its registry through an automated biometric identification system (ABIS). For best results, ten fingerprints would be required for every single person registered (not just heads of household and other benefit collectors), if indeed one of the goals for these systems to ensure that each person in the database is unique, while not excluding the most vulnerable populations. As in any context, the systematic collection of biometric data

poses risks to privacy rights, if not carefully handled¹⁰, and rules must be in place to protect privacy.

Mobile phone numbers

All of the organisations reported collecting mobile phone numbers for each household registered. The ubiquitous collection of mobile phone number therefore poses an opportunity – to be evaluated against a set of risks. On one hand, phone numbers assigned by telecom operators are of necessity unique and the vast majority of respondents’ digital records contain one or several facial images against each phone number. On the other hand:

- Not every household will have access to a mobile phone, meaning that sometimes multiple households will report the same phone number. It also means that a phone number cannot necessarily be directly attributed to a household;
- Individuals’ phone numbers are not necessarily persistent over time: i.e. there is a likelihood that the same individual changes phone number;
- Some organisations give out SIMs at registration, so the same person can have multiple ‘unique’ phone numbers;
- The organisations’ systems may not all keep detailed logs of which household (phone number) received which benefits for any given month, making it difficult to reliably report on duplicate targeting.

Moreover, in most cases the phone numbers collected were of the head of household or principal benefit collector only. This means that phone-numbers could not be used as a unique identifier at the individual level, but only at household level (and not even that, if for example the head of household were to report different numbers during different registrations or if phone were to be borrowed from a neighbour or other relative).

Conclusions and recommendations

In this section, we discuss the main implications emerging from the findings of this brief scoping study. We start with a set of considerations on the status-quo: what could be done in the short-term given the status of the data and databases of the main humanitarian actors operating in Somalia. We then turn to potential recommendations moving forward, aimed at leveraging the work done so far and feeding into systems that are longer term and used for multiple uses beyond the humanitarian and displacement contexts.

Short-term: what can we do with what we have?

Opportunity to harmonize registration and enrolment methods and data collected

Developing and agreeing on common variables (five –seven) with a unique identifier and biometrics could improve the ability to verify identity until a national system is developed. Once agreement among humanitarian partners is reached on the common variables and

¹⁰ Magdalena Sepulveda, “*Is biometric technology in social protection programmes illegal or arbitrary? An analysis of privacy and data protection*”, 2018, ILO

biometrics, a set of protocols should be developed for enrolment, registration and common data collection as well as data sharing.

Potential for data sharing and interoperability

As briefly discussed in the section on ‘Unique Identifiers’ above, when different databases share the same identifiers they are able to better ‘communicate’ with each-other, either through full interoperability or through other approaches to data sharing. The advantages of this include the potential for deduplication; better monitoring, reporting and planning (e.g. of trends across organisations and over time); improved coordination of response efforts, and; improved efficiency of response.

Given the lack of a common approach to establishing unique identifiers across existing organisations, and the lack of a national ID number, this cannot be fully done at this stage. Several organizations, in particular those collecting biometric data, could however already do regular deduplication exercises to cross check data and avoid potential overlap.

Thanks to the availability of mobile phone numbers across all respondents’ databases, it is theoretically possible to conduct partial analysis on the different actors’ beneficiary populations. However, this analysis would have necessarily a degree of inaccuracy, as phone numbers are not sufficiently precise and not uniformly registered, limiting their use to ensure unicity of identity records between the multiple databases.

Potential for use of existing data in other ways: scalability for shock response

There is a trend in the humanitarian sector towards establishing so-called “shock-responsive social protection systems”. One potential option in such systems is to establish registries that allow organisations to scale up their responses (especially cash-based transfers) by relying on previous registration exercises rather than registering beneficiaries afresh for every single intervention. Alternatively organisations can ensure that existing approaches to registration allow for speedy updates of variables for households whose livelihoods have substantially deteriorated, so their status can be revised. Besides the ability to scale up the number of calls by call centres for good planning during the registration and enrolment process (high risk districts) and increase the number of vulnerability criteria that is collected on a regular basis, can help to allow for a rapid response to shocks. The potential for an effective¹¹ and timely response depends on the nature of existing registries and registration systems (as discussed extensively in Barca and O’Brien (2017)), including:

- Their coverage, including the extent to which they retain data on non-beneficiaries.
- The extent to which they collect or store operationally relevant data (e.g. names, locations, and account numbers, mobile phone numbers, etc).
- The extent to which they collect or store data that can be used to sketch households’ risk and vulnerability profiles.
- The process they adopt for data collection (e.g. census survey or on-demand), affecting how up-to-date the data is.

¹¹ E.g. adequately covering affected population and meeting their needs.

From the responses received within this assessment, it seems clear that very few agencies currently record and store a level of detail on the households they register that would help create shock-responsive systems. As explained above, the reason for this is that current registries (or databases of current and past beneficiaries) are not designed to enable targeting post-registration, but rather are based on the idea that those registered have already been selected to receive assistance prior to registration.

Improving data storage and security

From the responses received, it appears that a significant percentage of beneficiary data is still stored and managed in systems or databases that either do not have any “segregation of duties” (i.e. access to data or functionality in the system limited by the role the individual has been assigned to perform) at all or do not segregate access by programme or geographic area. As much as possible, systems should limit any one operator’s access to only that data which is relevant to their ability to perform their role. It is also important for systems to be designed in such a way as to set strict limits on (or not allow at all) the downloading of beneficiary data to files that can then be shared outside the system.

Finally, cybersecurity is of concern for those registries that can be accessed from the internet to protect personal data. The collection and storing of vast amounts of digital identity records in central repositories is a recent development in the humanitarian sector, and most agencies are still in the process of giving themselves rules and standards of conduct, as well as setting up their systems in a way that not only maximises operational gain but also adequately protects beneficiary privacy and personal data.

Longer-term: what could be changed going forward?

It is clear from this assessment that, if organisations in Somalia are truly committed to 'using existing resources and capabilities better to shrink humanitarian needs over the long term' ('Grand Bargain', 2016), a shift in existing approaches to data and information management will be needed in the medium-long term.

Making biometric collection standard

The use of mobile phones to enhance data sharing, can only be a partial, short term and incomplete solution, as previously explained. In the longer term, integration and harmonisation across agencies – and government – would require a shift towards a common approach to establishing a unique identifier for individuals and households.

Biometric authentication during benefit collection or redemption is used for most of humanitarian assistance provided in Somalia, albeit by only few partners (WFP, UNICEF, FAO, Cash Consortium to some degree). The benefits of deploying biometric technology (controlled by the humanitarian agencies themselves) to the point of transaction are clear: 1) it increases trust that benefits go to the intended beneficiaries; and 2) there is a detailed transaction record, including of the location where the transaction took place. Given the importance of tracking the movements of beneficiaries from one area to another to be able to profile vulnerability and coping strategies seems particularly relevant in the Somalia context.

However, it should be acknowledged that biometric authentication at the point of transaction requires technology to be installed there, and possibly for that technology to be integrated with other systems that are present (e.g. mobile network operators' mobile money agent solutions if transfers are done in mobile form). Agencies and donors may be reluctant to impose this additional burden if it increases time and complicates the process to provide assistance.

The approach to collect biometrics or an iris scan systematically across the board, if done properly, would involve collecting all ten fingerprints (and/or iris scans) for all household members¹². While few agencies have gone as far as UNHCR and WFP, their experience shows it is possible to adopt operational models and contract (or build) software services that offer biometric “de-duplication” and/or interoperability across diverse databases in a way that facilitates the benefits discussed in sections above, even in contexts as challenging as Somalia. Since (at least for the time being) de-duplication services involve significant economies of scale, there are incentives to collectivise the acquisition of such services.

Setting up a single registry for Somalia

Setting up a biometrics-backed single registry would seem to make sense in Somalia, and the wide experience and knowledge from the humanitarian community can be used to support the development of a national system.

The development of a (biometrics-backed) social registry for Somalia, supporting the national entities that would own, populate and administer such a registry could be an important building block for development in general as well as for the emerging social protection sector in particular.

With momentum growing in the Somali government and a coalescing of initiatives including the Digital ID study by the World Bank, the voter registration work by UNDP and the World Bank, IDP registration by federal and regional governments, the time does seem ripe to bring the efforts of the humanitarian systems and the governmental and development systems together in some way shape or form. The key will be to understand what type of a single registry would be supported by the Government of Somalia, who in the Government would be tasked with establishing and managing a system and what could be the best use of the efforts to meet the multiple needs of the population.

¹² WFP has conducted a study in Somalia to show that this is feasible even for infants. Standard practice is to collect fingerprint images from individuals five years of age or older.

Annex 1: Table Summary of Systems and Capabilities

Organization	Programme Type (Humanitarian, Resilience, or Both)	Type of System/Database	# of entries	HHs, Individuals, or both	Fields Captured (name, gender, birth, mobile number, # of HH members)	Vulnerability profiling or targeting conducted (before or after registration)	If yes to Vulnerability Criteria, which ones?	Verification of data (Y/N)	If verified by who
Puntland Ministry of Interior	Both	Online system from US vendor	150,000	Individuals	n/a	Yes, after registration	n/a	n/a	n/a
Puntland Social Welfare Agency	Safety nets (cash and in kind)	Paper based registry (2009-14)	12,500	Individuals	Not available	Yes, before registration	Disabled, mentally ill, orphans	Not available	n/a
FAO	Both for Livelihood programming (CFW, Cash + with AG, Fish, Livestock)	Online, own development. Open source mobile data capture solution for registration	645,350	Households (1 individual in the database per household)	Name of Beneficiary; Name of HH head; number of members in the household; specific information on livelihood, livestock, agricultural activities; contact	Yes, before registration	<ul style="list-style-type: none"> • Districts falling under IPC3 and IPC4 classification • Residents/IDPs of the designated local village • HH that have lost their herd and have no food reserves • Pregnant women and those 	Y	n/a

					details.		<ul style="list-style-type: none"> with small children below 5 years • Vulnerable female-headed HHs • HHs with one or more malnourished members • Other programme-specific criteria (e.g. relating to fisheries) 		
WFP	Both, for emergency, resilience, nutrition, and livelihood programming, and multi-purpose cash transfers.	Online, own development. Mobile extensions for registration and payments	4,200,000	Individuals	Household Name, Location, Address, Household Size, Document Type, Document Number, Last Name, First Name, Middle Name, Household Role, Recipient, Gender, Marital Status, Date of Birth/Age, Phone Number, Mobile Number	Yes, before registration	<ul style="list-style-type: none"> • First level of targeting is geographic targeting (IPC Phase) • For food security interventions, the second level of targeting is community-based targeting. • For treatment of malnutrition, malnutrition status of the target beneficiary is used while for prevention of malnutrition, all pregnant and lactating women and children under 2 are targeted. • Disability status • IDPs • GBV survivors • Women headed households • Patients living with TB/HIV 	Y	Cooperating Partner
BRCiS Consortium	Resilience	Online system from vendor (ONA) with dedicated mobile data collection tool for registration	179,773	Households (1 individual in the database per	Household size, household composition segregated by age groups, livelihood zone of the household, residency status.	Yes, before registration	Geographical targeting, community-based targeting, HH level targeting depending on the activity	Y	Implementing agency

				household)	Beneficiary's name, age, gender, region, district, community, role in the HH.				
Cash Consortium	Humanitarian cash transfers (multipurpose)	Online system from vendor (ONA) with dedicated mobile data collection tool for registration	300,000	Individuals	Region District Village Name of the respondent Gender of the respondent Age of the respondent Phone number for the registration of the cash transfers.	Yes, before registration	Children m/f under 5 Children/teens m/f 5-17 Adults m/f 18-59 Adults m/f 60 and over Unaccompanied or separated children Disabled persons Family members not present IDP household	Y	Implementing agency
UNHCR	Both, cash transfers (multipurpose)	Corporate systems for registration and case management (from vendors)	146,184	Individuals	Household or family size, age cohorts broken down by sex for household or family, location and physical address of household or family, names of household or family representatives (male and female "heads of household"), country of origin of household or family, special needs within household or family; Members: Name, sex, date of birth, current location (address), place of origin (address), date of arrival, special protection and assistance needs, marital	"UNHCR does not register beneficiaries for a specific programme/activity/intervention but rather, registration is a fundamental component of international protection, and it is the right of persons who may be of concern to	Household vulnerabilities such as: <ul style="list-style-type: none"> • Female-headed households, single parents with no social/family support • Elderly/older person at risk (60+) with no social/family support and/or with chronic illness/unable to cope • Single female with no social/family support (alone) • Unaccompanied and separated children with no/limited support or coping mechanisms • Pregnant or lactating women no/limited support or coping mechanisms • GBV survivors with no/limited 	Y	n/a

					status, citizenship, education level, occupation/skills, religion, photograph, biometric, permission to share information, names of spouse(s), name of father, mother and spouse, additional personal names, names of all children, place of birth, existing personal documents, languages, documentation issued locally, specific events related to individuals	UNHCR to be registered.” Targeting is then applied following registration for UNHCR-administered programmes.	<ul style="list-style-type: none"> support or coping mechanisms • Survivors of violence and torture no/limited support or coping mechanisms • Security threatened cases and individuals/families at heightened risk who are unable to cope • Serious medical conditions • Malnourished children and individuals no/limited support or coping mechanisms • Persons with disabilities no/limited support or coping mechanisms • Families larger than five persons, families with children no/limited support or coping mechanisms 		
UNICEF	Humanitarian, multipurpose (nutrition, education, protection)	WFP’s system	113,274	Individuals	HH size, names and biometrics of lead and alternate, location, phone numbers, status; individuals: name, age, sex, location	“Beneficiaries jointly targeted by WFP and UNICEF. Targeting selection and registration currently done by WFP implementing partners. Currently evaluating expansion to	Category-based targeting for IDPs: IDP population in target areas	Y	Implementing partner

						criteria-based targeting with UNICEF implementing partners.”			
Somalia Red Crescent	Both, multipurpose	Open source data collection tool with online data management solution	5,270	Households (1 individual in the database per household)	Age, sex, phone number, HH size, name (four names), vulnerability indicators, assets or livestock	Yes, before registration	<ul style="list-style-type: none"> • Families who have lost livestock, • No source of income including remittances • Families with malnourished children • Families with pregnant or lactating mothers • Disabled and chronically ill members • orphans 	n/a	n/a
CRS	Humanitarian, multipurpose	Online/offline system from vendor (Red Rose)	9,000	Households (1 individual in the database per household)	Serial number, beneficiary name (head of HH), mother’s name, gender, age, number of adults in HH, number of children in HH, number of children currently in treatment for malnutrition, phone number for head of HH, new SIM card phone no, number of children/PLW from HH screened for malnutrition during registration, number of children from HH referred for malnutrition treatment during registration	Yes, before registration	<ul style="list-style-type: none"> • Vulnerability criteria established with Resilience committees in each location: Female-headed HHs prioritized 	N	n/a

African Disability Association	Resilience, multipurpose	Dedicated system with biometrics (other features not clear)	1,700	Individuals	n/a	Yes, before registration	<ul style="list-style-type: none"> • People with disabilities and their families 	Y	n/a
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Annex 2. Terms of Reference

TERMS OF REFERENCE: SOCIAL PROTECTION AND INFORMATION MANAGEMENT SYSTEMS REVIEW

Duty Station: WFP Somalia Liaison Office in Nairobi, with travel to Somalia Country Office in Mogadishu and other area offices in Somalia

Duration: 12 weeks

1. BACKGROUND and CONTEXT

Social protection can be defined in different ways, and there are a variety of approaches taken in different contexts and by different groups. In Somalia social protection was defined by the government in 2015 by the Social Protection Sub-Working Group under Peace and State Building Goal 5 (PSG5), as *Government-led policies and programs which address predictable needs throughout the life cycle in order to protect all groups, and particularly the poor and vulnerable, against shocks, help them to manage risks, and provide them with opportunities to overcome poverty, vulnerability, and exclusion. By addressing the root causes of poverty, risk, and vulnerability, social protection is expected to contribute to poverty reduction, social cohesion and inclusion, and economic growth as part of a cost-effective, sustainable, and comprehensive national system*¹³. Social Protection definitions can also be found with the World Bank, and other development partners¹⁴.

There was no formal social protection system operating in Somalia between 2013-2015 prior to the current crisis, including no government-led safety nets. The government of Somalia was committed however to the development of social protection before the current crisis. There was general recognition of the need for social protection in Somalia, supported by the fact that the 2010/2011 famine occurred despite the humanitarian community working for more than 20 years in the country. The scale of the current crisis further supports the strong rationale for establishing long term and predictable social protection that will help address chronic poverty and vulnerability in Somalia, moving away from the recurrent cycles of humanitarian support alone.

The current social protection gap in Somalia has been partially (though inadequately) filled both before and during the crisis by the strong informal systems of support, including the various types of traditional community assistance in Somalia, some based on reciprocal support between neighbours, others on circulation of animals and other assets, and a significant level of remittances from diaspora populations of about 1.4 billion USD¹⁵ accounting for an estimated 23 per cent of GDP. Informal

¹³ PSG5 Social Protection SWG "Somalia Social Protection Definition and Concept Note November 2015"

¹⁴ The World Bank definition is "*Policies, projects and programs to reduce social and economic risks and vulnerability caused by conflict, climate, poverty, food insecurity, lack of education and health services, gender inequality, and age, and to promote resilience through appropriate, predictable, and reliable interventions in income and food security for a population that is defined by pastoralism but rapidly urbanizing and mainly young.*"

¹⁵ Quartz Magazine, December 2016.

systems are however stretched in an environment of exhausted recurrent shocks, exhausted coping mechanisms and widespread poverty. There are also many vulnerable families that are not reached by remittances, as this community social assistance tends to be given along kinship and clan lines meaning those new to the area (such as displaced households), minorities and the marginalized often do not receive it¹⁶.

Humanitarian and development actors have also played a role in filling the space of some safety nets. Resilience programming underway in Somalia has aspects of safety net support, some basic service provision programming includes conditional transfers (both cash and in-kind) as incentives. There is also significant investment in the case of development actors working with and supporting local and federal government in the building up of accessible basic services. This includes: education where there is infrastructure, governance, curriculum, and incentivized transfers such as school feeding, take home rations, and school grants are utilized; water and sanitation; health, including infrastructure, training, maternal health, and immunization drives; nutrition, with large numbers of community workers trained, and assistance for moderate and severe acute malnutrition (MAM & SAM), among others¹⁷. In the case of shocks, including seasonal shocks that impact on livelihoods and food consumption, humanitarian assistance has historically stepped in, including during the current crisis.

In December 2017, a Call for Expression was issued by WFP headquarters for catalytic programmes particularly in technical and capacity support for the development or improvement of social protection systems. The call, which is supported by ECHO funding, was for initiatives complementing ongoing social protection efforts. WFP Somalia expressed interest and consulted with various stakeholders including donors, UN and NGOs working within the cash sector as well as with humanitarian and resilience programming partners. The requested technical assistance needs to contribute to efforts by a range of partners (government, major multilateral and bilateral partner organizations) to advance the linking of humanitarian action and social protection in the country.

This initiative will contribute to and complement an ongoing programme from the Italian Cooperation was secured for a joint programme, on which WFP and UNICEF are working to develop a social protection policy and framework and identify strategies to reach the most vulnerable populations.

Moreover, a review commissioned by the European Union will seek opportunities to envision how the current humanitarian assistance and development cooperation in Somalia, especially through cash transfers, could be an option on which to build the foundations of a transitional large-scale shock responsive safety net programme in the protracted crisis for chronically food insecure households, including internally displaced people. The review also drew up a road map to transition from the current cash-transfers programme to a longer term, safety net programme with an envisioned timeframe of 3 years. DFID is undertaking a similar study on humanitarian transfer systems; this programme will meet and coordinate with DFID to ensure a no duplication of efforts. Finally, Somalia donors namely ECHO/DEVCO, DFID, USAID, World Bank and numerous other development donors met to discuss harmonization and options for transition from emergency cash to a safety net and later a social protection system in Somalia on the 20th of February. The current work is seen as complementary to all of these efforts.

2. RESPONSIBILITIES

¹⁶ UNICEF 2014 Designing Social Protection Frameworks for Three Zones of Somalia

¹⁷ See relevant sector reports for more information on service provision both before and during the drought.

The Social Protection and Information Management Systems Team will carry out their responsibilities under the oversight of WFP (Head of Programmes) and in partnership with the members of the Interagency CWG. The Advisor will also receive support from the WFP Social Protection and CBT units as well as the FAO CBT and IM units based in Nairobi and the Area Offices as necessary.

The activity will inventory information systems (databases, platforms, etc.) used for the registration and management of beneficiary and activity information as well as systems of cash transfers that are used by various UN agencies, NGOs and Government by (see details in Annex I):

Analysing the types of information collected by each database.

Evaluating the capacity of the databases, particularly in terms of numbers of beneficiaries or beneficiary households, and the ability to scale up.

Reviewing of targeting processes used in registration, understanding the processes used to register beneficiaries or households and the time involved, as well as method of authentication (e.g. whether biometrics are used).

Understanding the scale of transfers in monetary values per beneficiary or households per time period.

Considering issues of data security: where and how data is stored and the safety of data in relation to privacy issues.

Understanding key characteristics of vulnerable households associated with poverty and including barriers to access to nutritious food and social services.

Perform other related duties as required.

3. DELIVERABLES

The activity is intended to be limited in scope and will compare the features and options of various information management and cash transfer systems, cataloguing each database and information system to review the: number of entries/beneficiaries, type of data collected, targeting and registration processes, money transferred in total and per beneficiary, how transfers are made (directly or with a financial provider). One of the deliverables will be a summarized, clear overview of the databases, geographic focus, the capacity of the database as well as potential scalability. In addition, a short narrative report with analysis to support the findings, with recommendations for data harmonization in registration and other processes should be provided. In terms of the vulnerability analysis, this will entail a review of the datasets and parameters to understand the key features of vulnerable households also take the form of a short narrative report.

4. COMPETENCIES, EDUCATION AND EXPERIENCE REQUIRED

One expert will have experience in MIS and transfer systems within the context of Social Protection systems. Knowledge of SCOPE, WB and other systems will be an advantage. One expert will have research experience on how delivery systems can facilitate responsiveness, efficiency and effectiveness and will provide external quality assurance of final report/deliverables. The team should also have an excellent understanding of issues related to social protection national data systems, and should have an understanding of fragile and conflict affected humanitarian settings, particularly in Africa, is preferred. The team should possess strong skills in research, analysis,

synthesis and report writing, and excellent written and oral skills in English. The ability to work effectively with people of different national, cultural and religious backgrounds is essential.

Annex 3. Overview of Questions/Categories of Questions

The task would involve creating an inventory of each programme managed by various UN agencies, NGOs and Government and, for each, understanding the following questions:

Category	Description
Overarching targeting strategy	<ul style="list-style-type: none"> Overarching approach adopted for targeting: who is being targeted, why and how (e.g. community based targeting, means testing, PMT, geographical targeting, etc – or combinations), informing all other elements below. Should include description of approach adopted to determine eligibility (e.g. variables used for PMT).
Registration*	<ul style="list-style-type: none"> Process used for initial registration of potentially eligible households (household survey, community level selection, on demand, mobile desks – time and capacity involved, etc.) Variables collected at registration stage Approach to identification (if any – e.g. ID card, biometrics)
Enrolment*	<ul style="list-style-type: none"> Process used for enrolment of households that have been deemed eligible, i.e. beneficiaries (household visit, community selection, referrals, on demand, mobile desks – time and capacity involved, etc.) Additional variables collected at enrolment stage (vulnerability criteria) Approach to identification (if any – e.g. ID card, biometrics)
Data verification & validation	<ul style="list-style-type: none"> Approach to deduplication (if any) Internal consistency checks (if any) Approach to quality assurance, e.g. supervisions, spot checks, etc. (if any) Validation/cross-check against other databases (if any) Ensuring standardisation of content/formats, etc.(if any)
Updating	<ul style="list-style-type: none"> Approach to maintaining data up to date to the extent possible (will depend on overarching approach to targeting, registration and enrolment)
Coverage of the resulting database	<ul style="list-style-type: none"> Number of individuals and households registered and/or enrolled Geographic coverage of database Potential for scaling up of database
Data management,	<ul style="list-style-type: none"> How data is stored and managed (including details on database properties, software

including data security/privacy	<p>used, etc.)</p> <ul style="list-style-type: none"> • What data is stored and managed (what variables are retained beyond their initial use) • Approach to guaranteeing data security and data privacy (including assessment of adequacy vis-à-vis global standards)
Data processing and analysis	<ul style="list-style-type: none"> • Approach to data reporting/M&E (if any) and key insights from M&E
Interoperability and data sharing	<ul style="list-style-type: none"> • Access rights for different categories of users (UN/NGO/government, including decentralised units) • Approach to data sharing (e.g. how is data shared in practice, if it is) • Approach to interoperability (if any) • Potential limitations to data sharing and interoperability in the future
Functionality for supporting programme operations	<ul style="list-style-type: none"> • Beyond targeting, how the database and information system support programme operations (e.g. payments/delivery and case management). <ul style="list-style-type: none"> a. Delivery of payments b. Authentication of payments c. Reconciliation of payments d. Monitoring e. Other uses
Type/value/frequency transfer or delivery	<ul style="list-style-type: none"> • Type of transfer (cash, in kind etc.), value (monetary) per relevant unit (e.g. individual, household) and frequency of delivery – including a basic understanding of how delivery process is structured (e.g. in house or through private contractor)

* Note that certain approaches to targeting (e.g. community based targeting) condense the phases of registration and enrolment). In this case these two would be reported jointly (acknowledging no information is being retained on non-beneficiaries)

Further categories may emerge as relevant during the assignment and will be integrated. Moreover, a final assessment will be made of how these compare across programmes, with a particular focus on the variables collected and stored and the underlying registration and enrolment processes.

Annex 4. List of persons interviewed for this study

Danielle Trotter, UNICEF, Social Policy Specialist

Kevin Mackey, Somalia Food Security Cluster, Senior Food Security Advisor

Hiba Abou Swaid, Cash Transfer Programming Coordinator and Alexandra Davis, Information Systems Specialist, FAO

Mark Agoya, Humanitarian Advisor, DFID

Johan Heffinck, Head of Office, ECHO Somalia

Dustin Caniglia, Cash Consortium Director, Concern Worldwide Somalia

Simon Makono, Cash and Food Assistance and M&E Manager, World Vision Somalia

Philip Ndekei, Country Manager, World Vision Somalia

Kaitlyn Scott, Emergency Cash Project Manager, Norwegian Refugee Council Somalia

Mohamed Ali Nor, Director General (DG), Ministry of Interior, Puntland

Kirsten Young, Human Rights Advisor, UNSOM

James Ferguson, Associate Protection Officer, and Urayayi Mutsindikwa, Cash Based Interventions Expert, UNHCR Mogadishu

Mohammed Moallim, Permanent Secretary, Ministry of Humanitarian Affairs and Disaster Management, Mogadishu

Isabella Hayward, Research & Liaison Officer, World Bank Somalia

Filip Warnants, Project Manager – Elections, UNDP Mogadishu

Daniel Kuria, Information Management Officer, IOM Somalia, Mogadishu

Annex 5. Questionnaire

Programme/intervention summary

What is the name of the programme/activity/intervention you are registering beneficiaries for?

How many beneficiaries do you have registered under that programme?

Please indicate whether the number above represents individuals or households. If you are making an assumption about household size (e.g. all households in programme assumed to have six members), please provide details.

What is the definition you use for "household" under this programme?

Where is this programme active (please list all the areas)?

What type of benefit does this programme transfer (cash, in-kind, voucher, ...)?

How often do you transfer benefits in this programme (e.g. weekly, monthly, ...)?

What is the value of the weekly/monthly/... transfer in USD per individual or household?

Which delivery mechanism and which service provider do you use for this programme (e.g. mobile money through Hormuud)?

Targeting

Which targeting method does this programme use (e.g. community-based targeting, proxy means testing, geographical, by category)
Please list the indicators/eligibility criteria for inclusion in the programme.
If there is regular re-targeting or verification of the caseload: How often does this happen?
Please provide a brief description of targeting process

Registration process

How do you register beneficiaries? (e.g. house-to-house, large registration sites with multiple desks, ad hoc, ...)
Which registration solutions and tools do you use (e.g. paper, smartphone/tablet/laptop; MS Excel, smartphone/tablet app)?
Before beneficiaries are registered electronically, is there a check that they have been selected?

How does that check work?

How long does it take to register one beneficiary/one household?

Registration data captured

Please list every single field you capture *per household*

Please list every single field you capture *per individual*

Do you capture "household roles" (e.g. "head of household", "main benefit collector", "alternate benefit collector", ...) during registration?

What do you use as the *unique identifier* of a person or household in your database?

Do you collect fingerprints?

If yes, do you collect them for all hh members registered?

How many fingerprints do you collect per person?

Do you collect iris scans?

If yes, do you collect them for all hh members registered?

Use of mobile phone numbers

Do you collect mobile phone numbers?

Whose mobile phone numbers do you collect (e.g. all phone numbers in household, head of household's, the main benefit collector, ...)

For any mobile phone number you register, do you capture who that phone number belongs to?

Enrolment of registered households/individuals into transfer interventions

Do you sometimes enrol existing beneficiaries from your database into programmes *other than the one they were originally registered for*?

If so: Is additional data collected at this stage (e.g. reasons for enrolment, such as vulnerability indicators)?

If so, which additional data?

Data verification/validation

Which approaches do you take to ensuring your database does not contain duplicates?

If you have a way of checking for duplicate registrations, is it just *within* programmes or also *between* them?

Please describe any checks you perform to ensure data consistency (e.g. to ensure telephone numbers have the right number of characters, in general that data makes sense as entered)?

Do you *automate* any of these checks (i.e. let the solution you use automatically check for data consistency)?

Do you validate/cross-check data against other data sources or databases? If yes, please describe.

If you collect biometrics during registration: Do you use an automated solution to identify duplicates using the biometrics collected?

If you *store* biometrics, do you store just templates/minutiae or also raw images?

Keeping data up to date

Do you follow a particular approach to keeping beneficiary data up to date?

Beneficiary data management solutions

Do you use a particular application for assessments/hh surveys?
When registering beneficiaries, do you have access to assessment/survey data?
How does the solution/application you use for registration communicate with your main database?
Do you rely on a third-party solution provider for your beneficiary data management tools?
Do you have in-house capacity to develop/maintain your beneficiary data management tools?
What kind of database do you use?
Where is this database hosted?
Do you enforce "role-based access" to beneficiary data (i.e. for any one user, which data and tasks they have access to depends on their role in the programme)?
If so, how is role-based access enforced?
Is beneficiary data organised by programme/intervention, or is it one large pool (e.g. per country/geographic area)?

Data handling and storage policies

What forms of beneficiary sensitisation on registration and personal data collection do you use?
How do you capture beneficiary consent to storing their data?
What specifically do you ask for consent on?
Do you have a policy on handling and storing beneficiary data within your organisation?
In terms of long-term beneficiary data storage, do you discriminate between different types of data?

Use of beneficiary data in operations

(How) Is beneficiary data used in the following transfer cycle operations?
<ul style="list-style-type: none">• Planning of distributions/transfers each cycle
<ul style="list-style-type: none">• Tracking whether beneficiaries have fulfilled conditions (if applicable) for their transfer (e.g. work or training)

- Generation of payment/transfer instructions (e.g. for a financial service provider) or vouchers

- Verification of the beneficiary's identity at the point of transfer

- Reconciliation at the end of a transfer cycle (i.e. planned vs. actual transfers)

Is there an interface between your M&E tools and your beneficiary data management tools?

Is there an interface between your beneficiary help desk/hotline tools and your beneficiary management tools?