The Resilience Recurrent Monitoring System

(RMS)

A Landscape Review

MARCH 2023

USAID FROM THE AMERICAN PEOPLE

REAL Resilience Evaluation, Analysis and Learning

ABOUT THE REAL AWARD

Resilience Evaluation, Analysis and Learning (REAL) is a consortium-led effort funded by the USAID Center for Resilience. It was established to respond to growing demand among USAID Missions, host governments, implementing organizations, and other key stakeholders for rigorous, yet practical, monitoring, evaluation, strategic analysis, and capacity building support. Led by Save the Children, REAL draws on the expertise of its partners: Mercy Corps and TANGO International.

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DISCLAIMER

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Table of Contents

Introduction 1

Objectives 2
Research Questions 3
Methodology 3
Literature Review 3
Key Informant Interviews 5

Current State of RMS 6

RMS FUNDING. 7
Stated RMS Objectives 7
Sampling Approaches 8
RMS Initiation, Frequency, and Duration 9
Key Indicators of Interest 11
Data Collection Methods 13

Respondent Perceived Value of RMS 14

Nuanced Contextual Understanding 14
Identify Program Impacts 15
Fill Information Gaps 16
Improved USAID and Local Government Relationships 16

Challenges and Solutions. 17

Design 17
Data Collection 19
Data Management and Analysis 20
Dissemination and Communication 21
Action and Adaptation 23
Cross-cutting Challenge: Role of Implementing Partners. 23
RMS Cost-Benefit 24
Alternatives to an RMS 26
Are RMSs living up to their potential? 26
Future of RMS 27
Next Steps in the Technical Consultation 28

References 29
Annex 1: Key Informant Interview Protocol 30
Annex 2: Literature Review Research Questions 32
Annex 3: RMS Literature Review Bibliography 33

ACRONYMS

DC	District of Columbia
DEC	Development Experience Clearinghouse
M&E	Monitoring and Evaluation
MEL	Monitoring, Evaluation, and Learning
REAL	Resilience Evaluation, Analysis and Learning Award
RFMS	Rapid-Feedback Monitoring System
RMS	Recurrent Monitoring System
RPM	Resilience Population-Level Measurement Activity
TANGO	Technical Assistance to Non-Governmental Organizations
USAID	United States Agency for International Development
WASH	Water, Sanitation, and Hygiene

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Introduction

Measuring resilience requires tools that can capture how individuals, households, and communities draw on resources and employ strategies to respond to shocks and stresses and how this affects their wellbeing trajectories in the short and long term. A key resilience measurement tool for capturing these dynamics is the recurrent monitoring system (RMS).[1]

Under the Resilience Evaluation, Analysis and Learning (REAL) Award, in 2019 Mercy Corps and TANGO International collaborated on developing of an RMS Practical Guidance Note, based primarily on their own experiences designing and implementing RMS.[2] However, several RMS have been fielded globally by multiple researchers and monitoring and evaluation (M&E) professionals, resulting in a wealth of knowledge and experience that goes beyond the existing guidance. This knowledge and experience have yet to be systematically aggregated, discussed, and documented collectively by resilience researchers and implementers to identify the strengths and drawbacks of different approaches to RMSs for different purposes. To this end, the REAL Award is bringing together a group of global RMS designers and consumers to explore RMS implementation challenges and put forth collective recommendations for RMS application in humanitarian, development, and peacebuilding programs.

This report begins by outlining the objectives of the overall RMS technical consultation, research questions, and methodology employed for the landscape review phase of the technical consultation. The next section describes the current state of RMSs by summarizing the trends and characteristics observed by reviewing RMS reports and protocols. The following sections describe the value, challenges, solutions, and future opportunities of RMSs based on key informant interviews. The report concludes with a section outlining the next steps in this technical consultation.

1 There has been an ongoing discussion over whether to refer to RMSs as recurrent monitoring surveys or systems. Under the REAL Award, guidance has previously referred to them as surveys. However, while conducting of this review, REAL partners agreed that the term system is a more comprehensive term that can include methodologies that do not rely on household surveys but still collect repeated measures from, e.g., key informant interviews and focus group discussions from the same communities.

2 Scantlan et al. (2019).

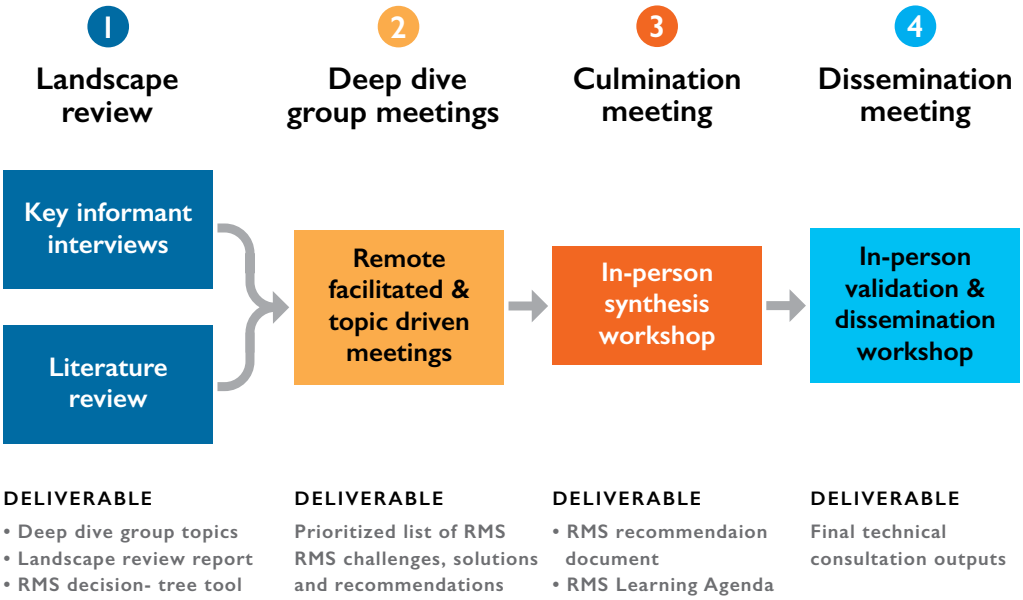
Objectives

Through this work, the RMS technical consultation seeks to:

1. Identify and synthesize promising practices for RMSs that enable the United States Agency for International Development (USAID) Mission and Implementing Partner staff to better appreciate the strengths and limitations of distinct approaches to RMSs, and
2. Identify and prioritize opportunities to further improve RMS methods that researchers and M&E staff can systematically test.

This report synthesizes the initial phase of the RMS technical consultation, a literature review of existing RMSs to date, and stakeholder interviews with RMS designers and users; additional phases are visualized below in **Figure 1**. The insights from this report will inform a series of technical deep dive group meetings to explore challenges and proposed solutions regarding the design, implementation, and use of RMSs. Recommendations from the deep dive groups will be presented during a culmination workshop, where workshop participants will set a global RMS learning agenda for advancing future application of RMSs and inputting into an RMS recommendations document outlining the different approaches to RMSs, their respective strengths and limitations, and recommended best practices. This series will conclude with a dissemination event with a wider group of RMS designers and users, including a presentation and validation session of the draft RMS recommendations and learning agenda.

FIGURE 1: Overview of RMS Technical Consultation Project



Research Questions

This phase of the RMS technical consultation sought to respond to the following questions:

1. What is the range of objective(s) observed in RMS reports? Are RMS meeting stated objectives? Where do we see successes and why?
   Where do we observe shortcomings and why?
2. What are the biggest challenges RMS designers and users face in the design, implementation, analysis, and use of RMSs?
3. What are the biggest opportunities RMS designers and users have in terms of technology, data collection/monitoring, evaluation, and learning (MEL) systems innovations, etc.?
4. How are RMS users planning, budgeting, and integrating RMSs into (R)MEL systems?

Methodology

LITERATURE REVIEW

To begin to respond to the research questions enumerated above, a literature review was conducted looking at RMS reports or protocols. Only studies conducted since 2010 were considered, coinciding with the 2010/2011 drought in the Horn of Africa that invigorated exploration into resilience conceptually and methodologically; it is unlikely that any RMSs (that meet the inclusion criteria described below) were conducted prior to 2010. The review team decided to include completed, ongoing, and planned RMS so long as the methodology and approach were sufficiently documented for detailed review. The following inclusion and exclusion criteria were applied:

Reports (or design protocols) were *included* in the RMS literature review if they met all of the following criteria:

- Repeated measures from three or more points in time, typically (but not necessarily) from the same respondents collected at defined intervals
- Resilience measurement indicators: Must include measurement of resilience capacities, shock exposure, and wellbeing outcome
- Quantitative, qualitative, or mixed-methods
- Data collected as part of M&E of an implementing partner activity or portfolio of donor activities in a geographically defined catchment area
- Original research from low and middle-income country contexts

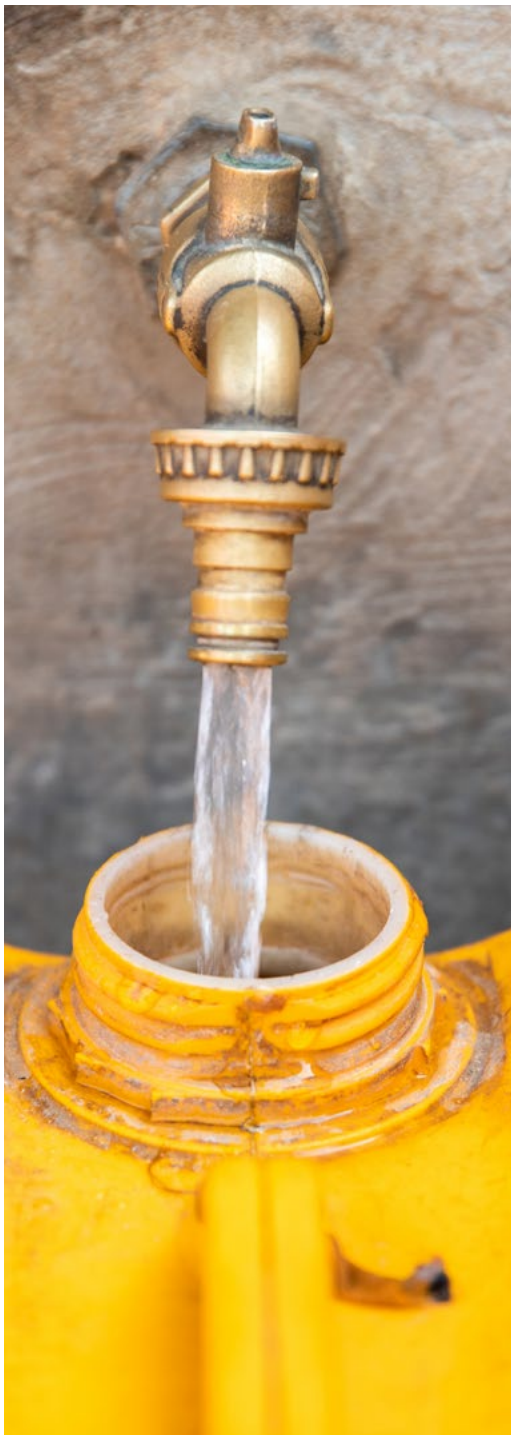
Studies were excluded from the literature review if they met any of the following criteria:

- Data from two or fewer points in time, with no intention of collecting additional data (e.g., cross-sectional research, baseline/endline data, etc.)
- Studies that do not include resilience measurement indicators
- Panel studies done outside of the context of a development/humanitarian assistance project (e.g. ethnographic, demographic, public health research, etc.)
- Original research from upper and middle-income contexts
- Studies with data collected before 2010

The literature review began with RMS documents sourced from REAL partners, including RMS designed and implemented themselves, as well as other known RMSs conducted by others. Next, REAL partners "snowballed" additional RMS reports by asking key informants (described in the following section) to share RMS reports as well as reviewing bibliographies of RMS reports. In addition, the following databases and search terms were queried:

1. Databases
   - EBSCOhost
   - JSTOR
   - ProQuest
   - USAID Development Experience Clearinghouse (DEC)
   - World Bank Open Knowledge Repository
2. Search terms
   - Recurrent monitoring
   - Monitoring resilience
   - Resilience measurement
   - Monitoring shocks resilience
   - Monitoring stresses resilience
   - Panel resilience measurement
   - Resilience panel study
   - Longitudinal resilience measurement

This search strategy yielded an initial pool of 24 RMSs; after the inclusion/exclusion criteria were applied, 15 completed and four ongoing RMSs spanning from 2015 to 2023 for a combined total of 19 RMS were included.[3] While the review team strived to obtain the most up-to-date and comprehensive bibliography of RMSs, it is possible that some RMSs were excluded. Any omission was unintentional, and REAL partners welcome additional submissions that meet the criteria listed above.



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3 See Annex 3 for the available reports related to each RMS referenced for this literature review. Please note there are two additional RMSs that are ongoing, which are using an expanded version of the MIRA methodology in Ethiopia and Madagascar. These are currently not included in the literature review count because there is not a publicly available report, and at this time, the authors have not received the requisite documentation describing the RMS.

KEY INFORMANT INTERVIEWS

In addition to and informed by the literature review, key informant interviews were conducted with select RMS designers and users detailing common methodological, logistical, and practical challenges experienced when implementing RMSs and using RMS results. Three types of respondents were identified that would each bring important and unique perspectives:

1. **RMS Designers,** who lead the technical design of the RMS, usually support RMS implementation in various ways and are responsible for the analysis and reporting. Interviewees came from various consulting/research firms, universities, and other international organizations (e.g., World Bank and the Food and Agriculture Organization)
2. **Activity-Level RMS Users** who use RMS information and work on a specific project or activity as a USAID implementing partner—for example, Chiefs of Party, program managers, headquarters technical sector staff, field coordinators, etc.
3. **Portfolio-Level RMS Users** who make use of information that supports multiple resilience projects/activities. These RMS users were staff either from a regional USAID Mission or District of Columbia (DC)-based USAID staff.

An initial list of key informants (hereafter referred to as "respondents") was compiled by REAL partners and USAID Center for Resilience staff. Additional respondents were identified through the literature review and by suggestions from interviewees. This resulted in a list of 45 potential respondents that were contacted via email to participate in a video call at their convenience. Of the 45 potential respondents, 28 ultimately participated; **Table 1** below presents response rates by respondent type.

TABLE 1: Response rates by respondent type

RESPONDENT TYPE	INVITED TO PARTICIPATE	PARTICIPATED	RESPONSE RATE
RMS Designers	18	11	61%
Activity-Level RMS Users	14	9	64%
Portfolio-Level RMS Users	13	8	62%
TOTAL	**45**	**28**	**62%**

In addition to representing a variety of RMS stakeholders, respondents were also selected to provide insights from different organizational perspectives. Staff representing six USAID Missions, four implementing partners, and nine academic/research institutions were invited to participate. **Table 2** on the next page presents response rates by organization type.

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TABLE 2: Response rates by respondent organizational affiliation

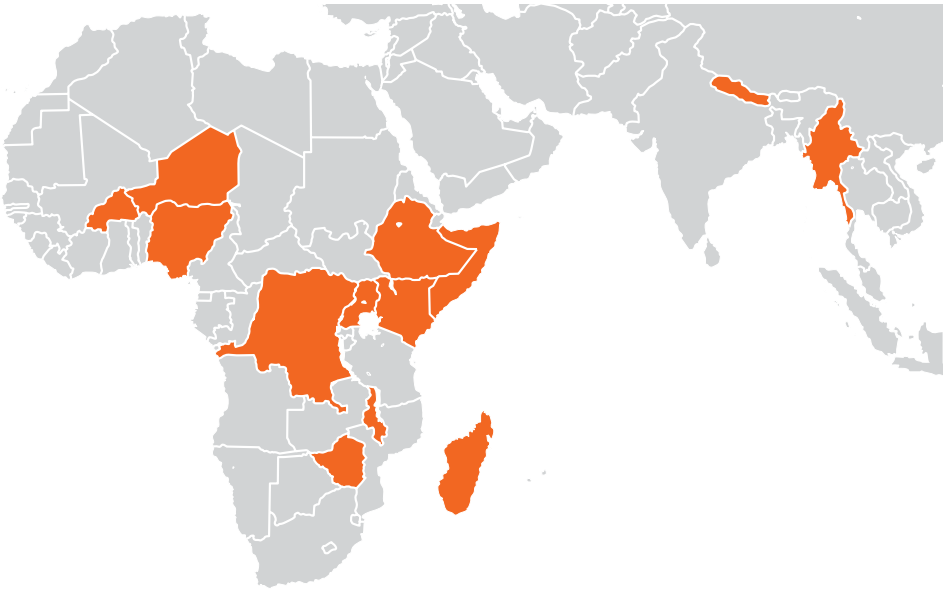
ORGANIZATION AFFILIATION	INVITED TO PARTICIPATE	PARTICIPATED	RESPONSE RATE
Number of USAID Missions	6	3	50%
Number of Implementing Partners	4	3	75%
Number of Academic/Research Institutions	9	6	67%
TOTAL	**19**	**12**	**64%**

Interviews were conducted from December 2022 through January 2023 using Microsoft Teams. Interviews were recorded with respondent consent and automatically transcribed to be inserted into a response matrix to facilitate content analysis. A thematic analysis was conducted to capture the main themes emerging from the interviews, which have been synthesized in this report.

Current State of RMS

Since the publication of REAL's Practical Guidance Note 6, RMS designers have tested new and innovative RMS models, expanding the application and utility of the RMS. This section of the report will describe common features of reviewed RMSs.

FIGURE 2: Map of countries highlighted in which RMSs are completed or ongoing



The REAL Guidance Note 6 highlighted several characteristics that distinguish an RMS from a typical program monitoring system:[4]

1. RMSs are focused on the relationships between shocks and changes in household capacities and wellbeing outcomes over time,
2. RMSs collect data from the same individuals, households, and/or communities over time,
3. RMS data collection is planned around specific shocks and stresses triggered by a shock or collected within specific intervals when shocks/stresses are likely to happen (e.g., during lean and monsoon seasons)

This review of RMSs conducted to date reveals another characteristic to add to this list to further distinguish RMSs from other real-time monitoring systems (e.g., surveillance and forecasting), namely:

4. RMSs are used to understand how Implementing Partner activities strengthen household resilience capacities and wellbeing outcomes and/or to adapt interventions.

RMS FUNDING

This review did not specifically look at detailed budget information to understand the absolute and relative costs of RMSs in activity budgets; while this analysis would yield important insights, negotiating access to this data and developing a comprehensive and comparable dataset to objectively measure these costs was beyond the scope of this activity. However, looking at the donors that typically fund RMSs shows that 79% of RMSs reviewed were funded by USAID, including one instance in which USAID was one of several donors. Other donors funding the RMS reviewed include: other government agencies (European Union, United Kingdom Government, oreign, Commonwealth and Development Office), foundations (Margaret A. Cargill Philanthropies), multi-laterals (World Bank), and non-governmental organizations (Mercy Corps' private donors).

STATED RMS OBJECTIVES

The REAL Practical Guidance Note 6 described two main RMS models. These models were primarily based on if data collection was initiated by a shock (i.e., shock-triggered) or planned around seasons where multiple shocks tended to occur at once (i.e., lean or monsoon seasons). Increasingly (as discussed below) RMSs are moving away from being initiated by a shock and are being linked to a project or portfolio of projects cycle. This review of RMSs to date instead looks at the publicly reported objectives of the RMS.

This synthesis of stated objectives must be interpreted carefully. The literature review and interviews did not seek to rank or evaluate whether a *specific* RMS's objectives were successfully achieved. The review did, however ask respondents via the Key Informant Interviews whether their RMS achieved its intended objectives and included themes from these interviews into the summative report findings. In some cases, objectives were quite general, lacking sufficient detail to convey to the reader what the RMS was measuring. Moreover, it could be the case that there are *explicit* objectives that were not fully integrated or achieved and implicit objectives that, while not being publicly documented, greatly influenced the design and implementation of the RMS. RMS objectives should not be considered mutually exclusive (i.e., each RMS had multiple objectives).[5]

4 Scantlan et al. (2019).

5 Unlike preceding terms, this was only explicitly mentioned in the objectives of two RMSs; one focusing on host and internally displaced people communities in Nigeria and another focusing on caste and gender in Nepal.

1. **Increase understanding of resilience dynamics in a given geography.** The majority (84%) of RMSs reviewed had one or more objectives exploring how households and communities in a specified geography experience and respond to shocks and stresses in terms of:
   - Shock exposure, severity, evolution, and effects (both immediate and downstream)
   - Changes in wellbeing, time to recover
   - Resilience capacities (household response and coping strategies) and their relationships with wellbeing outcomes, and how they evolve over time
   - Marginalized populations and differential vulnerabilities, response strategies, and resilience
2. **Understand the contribution of resilience investments to improved resilience capacities and wellbeing outcomes.** The next most commonly stated objective (68%) was to explore the relationships between participation in a specific intervention (or combination of interventions) and resilience to shocks and stresses or set of shocks—either in terms of changes in wellbeing outcomes or targeted resilience capacities; this includes but is not limited to evaluating the impact of resilience investments
3. **Inform activity design, implementation, and/or monitoring systems.** Just over one-third (37%) of RMSs explicitly mentioned that the RMS was intended to inform program design or investment, implementation, adaptation, and/or input into program monitoring and reporting systems. This may seem low, but it could be the case that this may be an implicit objective of RMS that should be made explicit in the future. Notably, in most cases, how the RMS would feed into specific programming decisions was not explicitly articulated in the report (e.g., which indicators, at what times, etc.).
4. **Inform theory or measurement approach development.** Finally, about one-sixth (16%) of RMS had the stated objective to develop theoretical frameworks and/or methodological approaches for analyzing emerging areas of study in resilience (e.g., subjective resilience, predictive analytics, migration, health, nutrition, etc.), etc.

SAMPLING APPROACHES

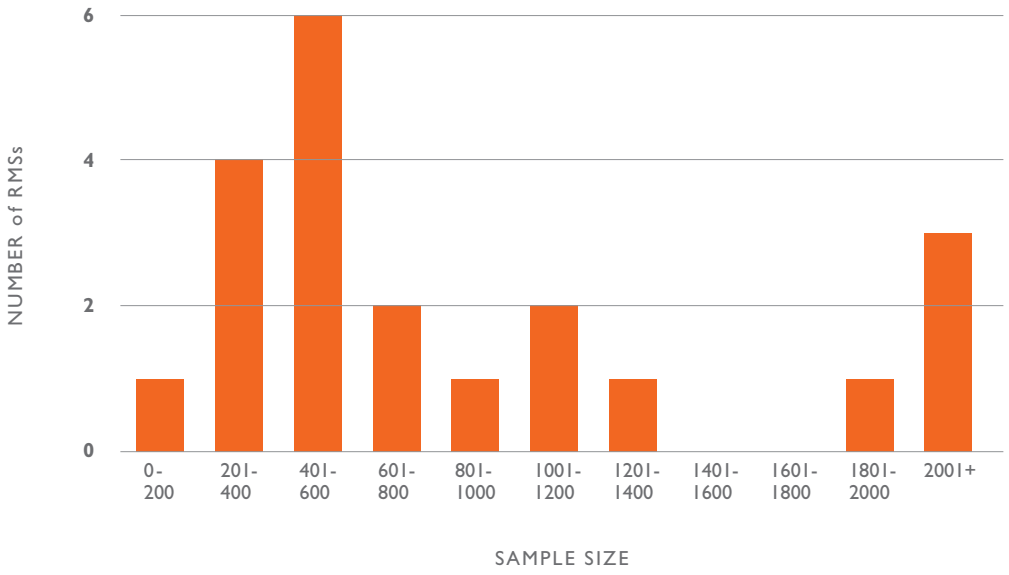
Most of the RMSs reviewed (65%) utilized a sampling frame based on the general population within a specified geographic area, while the remainder (35%) used a participant-based sampling frame. In most population-based sampling frame examples, two-stage cluster sampling was employed. Stratification was common, and the following strata were used:

1. Stratification based on intensity or type of implementing partner interventions received (e.g., water, sanitation, and hygiene (WASH), food security; savings groups; integrated, etc.), particularly in RMSs seeking to investigate the correlation or evaluate the impact of an activity or combination of activities and resilience, wellbeing outcomes, etc.
2. Stratification based on an administrative unit (e.g., district)
3. Stratification based on implementing partner catchment area, in the examples of portfolio-level monitoring RMS

In eight RMSs the sampling frame was comprised of households surveyed as part of a larger baseline effort, meaning the RMS was actually a sub-sample of a larger survey that was followed over time.

One of the often cited features of an RMS is the relatively small sample size. **Figure 3** on the next page shows the distribution of sample sizes used across reviewed RMSs and shows that most tend to have sample sizes of less than 1,000 households, with a median sample size of 600 households. The four RMSs with sample sizes greater than 1,800 households included one impact evaluation that plan to utilize coarsened exact matching (which tends to require larger sample sizes), two portfolio-level monitoring RMSs that monitor multiple implementing partners activities, and another activity-level monitoring RMS that utilizes machine learning to conduct predictive analytics.

FIGURE 3: Number of Households Surveyed for an RMS



RMS INITIATION, FREQUENCY, AND DURATION

Respondents spoke of how the shock-triggered RMS model, where an RMS is only initiated following a significant shock event, has evolved. In one example, a designer noted that while an RMS was initially designed to be shock triggered, they realized that in all of the contexts in which an RMS was implemented, households were exposed to a variety of shocks at any given time. One respondent emphasized this point by saying, *"[Activities] use RMS in environments where shocks are common and will happen. [This] gives a sense of how households connect with systems to support them, which allows for more adaptation and a broader perspective, lending itself to longer-term solutions and strategy"* (activity-level RMS user). Activity-level RMS users also noted the benefits of an RMS in helping to see how households respond to different shocks over time and how their resilience-building activities influence their response and resilience capacities.

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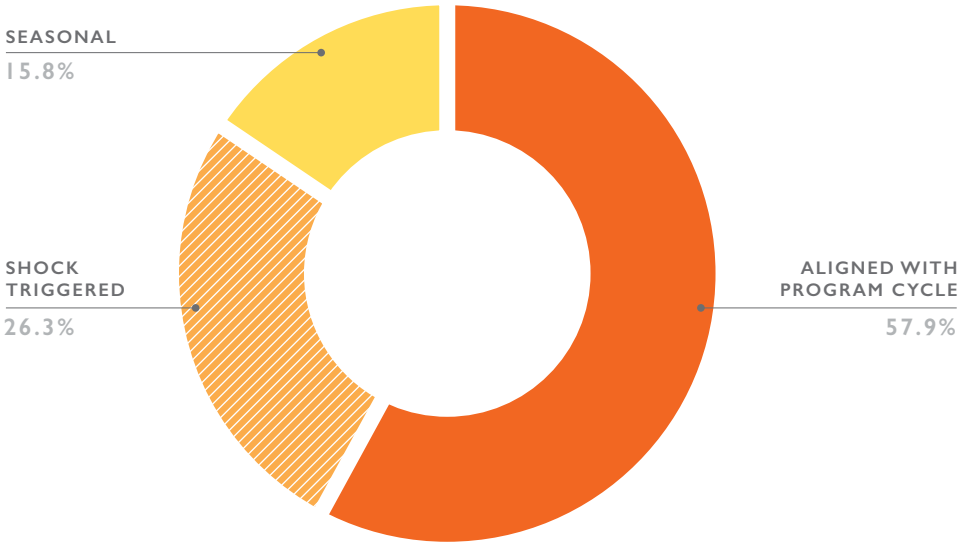
Figure 4 below shows that, according to a review of the 19 RMS reports, RMS initiation now tends to align data collection with the program cycle or portfolio measurement cycles in the cases of portfolio monitoring like the Somalia Resilience Population-Level Measurement (RPM) Activity or Malawi Rapid Feedback Monitoring System (RFMS). In recent years it is becoming less common to initiate an RMS based on a single specific shock experience or along seasonal dimensions, likely due to the growing understanding that, at any given time, households are confronting myriad idiosyncratic shocks and stresses that may not "trigger" an RMS and the increased variability and unpredictability of seasonal trends.

FIGURE 4: Initiation of an RMS



As defined in the inclusion criteria above, an RMS must have at least three points of measurement. The literature review revealed that there was some variety in the number of survey rounds; **Figure 5** on the next page illustrates that as the duration of the RMS increases, the frequency of survey rounds decreases. In other words, an RMS that collects data for less than two years is more likely to collect data more frequently (monthly, bi-monthly, or semi-annually), while an RMS lasting more than 2 years is more likely to collect data on an annual basis.

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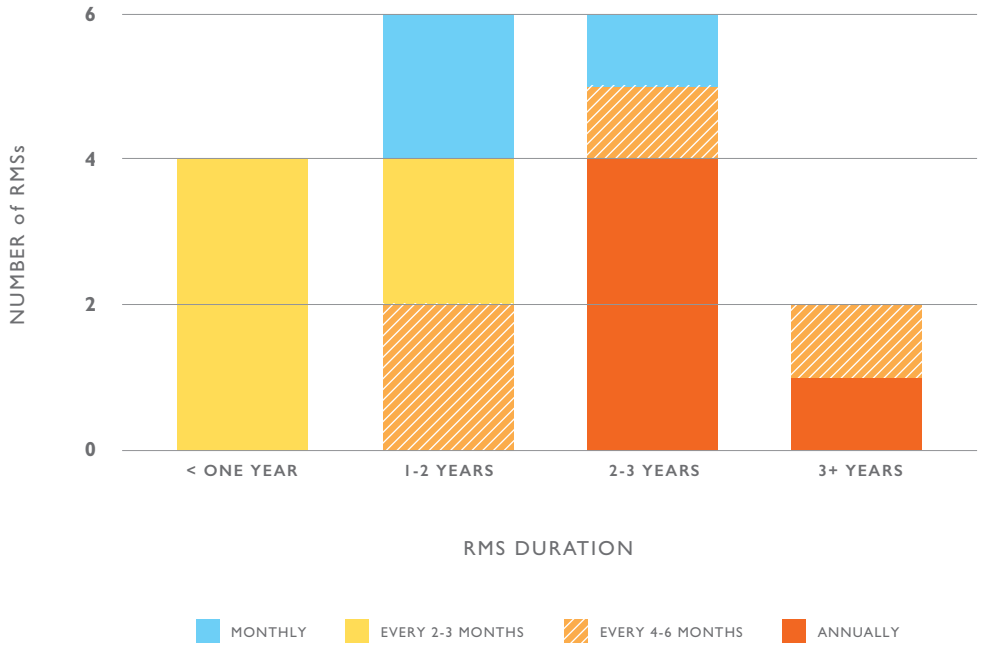
FIGURE 5: RMS duration (in years) and survey frequency



KEY INDICATORS OF INTEREST

The reviewed RMSs collected data against the following types of indicators:

- Resilience capacities
- Shocks and stresses
- Wellbeing outcomes

The following section elaborates on how RMSs were capturing this data.

Resilience Capacities

A resilience capacity is a resource that must be accessed and used in a particular way (i.e., strategy) to address a shock or stress.[6] Resilience capacities can be accessed and used to minimize exposure to shocks through preventative actions (i.e., absorptive capacities), make proactive and informed choices to adapt to changing conditions (i.e., adaptive capacities) or address systemic constraints that prevent access and use of other capacities (i.e., transformative capacities).[7]

The reviewed RMSs included a broad range of resilience capacities of interest at both the household and community level. Some of the most commonly measured capacities include: knowledge/skills/human capital, social capital (bonding and bridging), diversity of livelihoods, assets (land, livestock, house), agriculture practice and access to agricultural services (extension services), access to/ use of financial services and resources, access to markets, access to/use of formal and informal safety nets, presence of a civic group in households' communities, and political capacity (access to and ability to rely on support from politicians and government), which is sometimes referred to as linking social capital.

6 Rex & Jolicoeur (2019).
7 Vaughan & Frankenberger (2018).

To measure resilience capacities with multiple components the reviewed RMS often used indices, such as:

- Productive asset index
- Livestock asset index
- Household asset index (including cash savings)

Shock and Stress Exposure and Impact

The REAL Guidance Note 2 defines shocks as "external short-term deviations from long-term trends that have substantial negative effects on people's current state of wellbeing, level of assets, livelihoods, safety or their ability to withstand future shock." Stresses are defined as "long-term trends or pressures that undermine the stability of a system and increase vulnerability within it." Most RMS measured shock and stress exposure by asking respondents what shocks and stresses they had experienced within a certain time period. This was at times (but less often) paired with secondary data (e.g., rainfall or food prices) to create a composite shock exposure indicator. Several RMS also measured the immediate impact of shocks and stresses on food security and the household's economic situation. RMSs often combine shock and stress exposure and the impact of shocks/stresses on the household's economic situation and food security through the use of the shock severity index.

Wellbeing Outcomes

Wellbeing outcomes are high-level measures tracking key development indicators, often referred to as impact or development goals/objectives. The primary measure of wellbeing among the reviewed RMS was food security. 20 out of 21 reviewed RMSs measured food security through one or more of these indicators:

- Household Hunger Score
- Household Food Insecurity Access Index
- Household Dietary Diversity Scale
- Food Insecurity Experience Scale
- Food Consumption Score

Fewer RMSs measured other non-food security wellbeing outcomes such as psychosocial wellbeing outcomes (e.g., quality of life, subjective resilience measures, and aspirations).

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Other Intermediate Outcomes

The reviewed RMS also measured indicators meant to capture intermediate progress towards wellbeing outcomes. Some of these indicators included:

- (Reduced) Coping Strategies Index
- Shock preparedness and mitigation score
- Crop and livestock production

DATA COLLECTION METHODS

Reviewed RMSs used three primary data collection methods:

1. In-person data collection with local enumerators
2. Remote data collection via mobile phones using local enumerators, and
3. In-person data collection with local enumerators embedded in the communities they survey.

Other methods included in-person or remote data collection with implementing partner staff where capacity exists.

Mobile data collection made high-frequency data collection possible, especially in the context of remote management, and greatly reduced data cleaning time.[8] Enumerators adapted to COVID-19 restrictions by also using mobile phones for remote interviews and surveys.[9] It was also noted that mobile phone surveys are "much less intrusive than in-person surveys, thus more appropriate for food security crisis situations," and are a good option when implemented in a context with a highly developed telecommunications infrastructure.[10]

The hiring and training of community-embedded enumerators reduced costs for transportation and lodging, translators, and security, ultimately leading to reduced overall RMS costs. Using community-embedded enumerators also reportedly helped reduce attrition, ensuring there was not a gap in data collection.[11] There were, however, several limitations highlighted when using community-embedded enumerators, including the limited capacity of enumerators, requiring additional training and oversight (and financial resources), and potential bias of enumerators due to thier relationship with participants or standing in the community.

Qualitative and Mixed Methods

Nine out of 19 RMSs in the Literature Review implemented a mixed methods methodology, and ten implemented a quantitative-only methodology for their RMS. Many respondents cited the limitations of quantitative-only data and the ability of qualitative methods (i.e., key informant interviews and focus group discussions) to go deeper into the results as the reason for including qualitative methods. As an example, an activity-level RMS User described how their mixed-methods RMS uncovered the compounding and cascading disasters and their impacts on the community. They observed that the use of qualitative RMS data allowed them to understand the loss of assets and how households have been able to recover, which they may not have learned from the quantitative survey alone. These qualitative findings also guided the program teams on how and where to implement the next round of surveys on program activities by allowing them to expand activities that were most contributing to participants' ability to cope with disasters.

Analytical Strategies

Virtually all RMSs reviewed employed descriptive statistics to illustrate trends in indicator values over time. In addition, many RMSs reviewed employed some form of multivariate regression (linear, growth, and probit) to analyze relationships between shocks, resilience capacities, wellbeing, and/or activity participation. In some cases, econometric analyses like difference-in-differences, coarsened exact matching, propensity-score matching, and instrumental variables were employed to more rigorously either evaluate the impact or assess the directionality of the relationship being investigated.

8 Poshan Dahal et al., (2018).
9 Bower et al., (2020).
10 Martin, (2019).
11 Knippenberg, (2017).

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Respondent Perceived Value of RMS

Given the significant investment in time and resources to implement an RMS, key informant interviews sought to understand what motivates RMS designers and users to invest in an RMS. While some respondents could not speak directly to the observed benefits of implementing an RMS, most respondents reported notable benefits in the **Design and Adaptation** phases of the program cycle, leading to an improved ability for RMS users to adapt and design their resilience programming and maintain stakeholder relationships. One portfolio-level RMS user emphasized this point by saying *"In my mind, RMS is a way to collect real-time data on risk and resilience to provide information to decision-makers and program managers to be able to take relatively fast action used for adaptive management."* The following sections further describe other perceived values of an RMS.

NUANCED CONTEXTUAL UNDERSTANDING

"We use RMS to deal with shocks in the moment. It really helps to understand how people respond under these circumstances. The RMS gave us a sense of the magnitude and the context for changes [to household resilience coping strategies]." – RMS Designer

In addition to gaining a greater understanding of a community's shock exposure, coping, and adaptation strategies, respondents reported that RMSs provide a nuanced understanding of community dynamics that would not otherwise be identified through alternative measurement tools. One designer described their experience implementing an RMS: as the team collected data, they noticed that, by working with households to distribute resources to more vulnerable households, the head of the village in which they worked played a key role in informal safety net functionality. This system supported the community well until the

village head was so affected by the environmental shock taking place at the time that he needed to leave the village to tend to his animals, resulting in a collapse in these informal safety nets. The designer elaborated, "It was a huge indicator that we had not picked up on before. Some endogenous markers for when a threshold has been passed or reached allow you to understand when a context has changed. [The] RMS opened our eyes up to that."

IDENTIFY PROGRAM IMPACTS

Respondents indicated that RMS are useful in identifying program impacts. A portfolio-level RMS user gave examples of how their RMS helped the program team with adaptive management, uncovering that some households in the program intervention area were not adequately benefiting or participating in the programs as anticipated. The team was also able to see linkages between some interventions, like community participation in the women's solidarity groups, and subsequent benefits like increased women's agency and taking a greater part in household decision-making.

An activity-level RMS user working provided a similar experience, whereby program impact results uncovered by their RMS informed resilience and disaster risk reduction methodologies and strategies. For example, it was found through their RMS that intervention communities in which savings and loan association activities were developed were more able to face shocks and fared better than communities without these interventions. This team went on to adapt their savings and loan association approach to other communities based on these findings.

"If done right, RMS can add a lot of value. It is important to understand how people are reacting [to shocks] in the moment, the extent to which these decisions are facilitated by our programs, and if our programs are helping people to be more resilient. We need to be able to move quickly and be flexible with the RMS."
– Portfolio-Level RMS User

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FILL INFORMATION GAPS

In the key informant interviews, RMS designers described how an RMS builds on evaluation tools to fill critical information gaps. RMS designers described the difficulty of measuring resilience solely at typical monitoring and evaluation intervals (i.e. baseline, mid-line, and end-line) which fails to capture changes in shock exposure, coping and response, and wellbeing, which are constantly fluctuating independently of traditional M&E data collection activities. With continuous shocks and stresses, RMS Designers described wanting to understand how households responded with greater frequency, for example, seasonally, and unpacking the dynamics and sequencing of how households fare and manage shocks and stresses over time.

"It is hard to know what is happening between [a baseline and end-line evaluation]. The RMS brought a lot of meaning to our impact evaluation and without it, we would not have been able to know why things did or did not happen." – Activity-Level RMS User

IMPROVED USAID AND LOCAL GOVERNMENT RELATIONSHIPS

Respondents pointed to the ability of RMS information sharing to strengthen relationships with stakeholders such as USAID Mission staff and country government entities, improving buy-in, program design, and response.

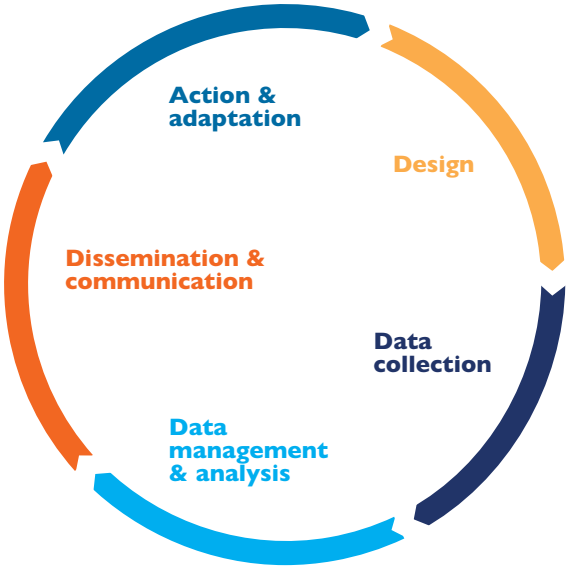
One activity-level RMS user spoke of how RMS results have enabled program activity managers to shape contextualized stories around resilience capacities and program impacts and share that back with Missions, who appreciate having the extra level of information. This user and one other spoke of how the RMS information fed into the redesign of the program's Savings and Internal Lending Community strategy (a similar approach to Village Saving and Loan Associations) and the design of a follow-on activity, respectively.

An RMS designer described providing RMS results to the local health authority, which used that data for its food security analysis. Unable to conduct this analysis without the RMS data, this improved the government's outcome for showing food insecurity and providing a shock response through housing and other aid. Ultimately, this instance led to long-term increased collaboration with the government.

Similarly, an RMS designer described how an RMS was able to document the increasing severity of shock effects on a program intervention community. Through being responsive to this information, the government increased the number of aid transfers happening in the intervention areas. By being receptive to this information, the communities could respond and adapt to this shock through their strengthened resilience capacities.

Challenges and Solutions

FIGURE 6: RMS Challenges along the Evidence Life Cycle[12]



In addition to understanding the value and benefits of an RMS, this study explored the challenges with the RMS, as well as potential solutions to these challenges. **Figure 6** above highlights the challenges most frequently mentioned by those interviewed: setting clear objectives, identifying sampling frames, data quality and depth, RMS timeliness, packaging results to promote learning and decision-making, and relevance for learning. These challenges are then organized according to the phases of the evidence life cycle: design, data collection, data management and analysis, dissemination and communication, and adaptation. The evidence life cycle phases, which correspond to the steps of the research process, provides a framework with which to analyze and later prioritize the challenges to collectively address as a community. Borrowing from the model referenced above in the graphic,[13] we focused on the issues and solutions within each of the key research steps outlined in more detail below.

DESIGN

The **design** phase of the evidence life cycle is where research questions are developed, and the research plan is designed.[14] Within the design phase, respondents raised many challenges around **setting clear objectives** but also proposed several solutions and recommendations to address these challenges. The top challenges related to a (lack of) clear expectations include:

- Unclear, differing, or too many RMS objectives
- Lack of common understanding of an RMS
- Unrealistic about what an RMS can and cannot do

12 Vaughn, & Jacquez (2020).
13 Ibid
14 Ibid

- Not explicitly linked to the Theory of Change, strategy, or learning agenda
- Confusion around whether an RMS can measure the impact of any, all, or just some interventions
- Unclear why some indicators were collected and not others

Designers and users are not always on the same page about what an RMS can and cannot accomplish. As one designer said, there is a need to be *"clear on why an RMS is being done (i.e., we know we have a seasonal shock, the need to pre-set up (a survey) (and) to critically evaluate data when it comes up)."* As discussed previously in this report, however, most RMSs have moved away from being shock-triggered to aligning data collection with the program cycle and/or at regular intervals independent of anticipated shocks. In addition, program staff do not always appreciate the need to balance the design of the RMS with all of the expectations users have of the RMS. One major misconception among RMS users is that the RMS can be used to understand the impact of *all* program interventions, which is usually not the case. Along the same lines, RMS users said they were unclear about the rationale for selecting some indicators over others and wanted designers to explain this more clearly in the design phase. One designer pointed out that there is a *"mismatch between what agencies are told to produce versus what is realistic and what they're given funding (to do)."* This sentiment was echoed by others interviewed.

Suggestions to resolve these issues included involving program teams more intentionally in the design process and anchoring the RMS in a thoughtful theory of change. As one portfolio-level user said, *"The understanding of (the) usefulness of RMS wasn't very strong. In the future, it would be great for there to be more advocacy around how RMS is developed and how they are useful."*

Issues related to **identifying the sampling framework** also came up several times during the key informant interviews. While not everyone who cited this issue called out sampling by name, the review team has grouped together the various challenges raised by respondents here. The top three challenges reported were issues with:

- Mobile populations
- Hard-to-reach or insecure areas
- Heterogeneity of population
- Trade-offs between sample size and budget

Several RMS designers mentioned that displacement of populations and working in insecure areas made it difficult to follow up with the treatment group and limited where the RMS samples could be drawn. As one designer explained, *"The places where we need to understand what we need from high-frequency monitoring are also the places where it's hardest to collect data."* Related to this issue, one portfolio-level user explained that due to displacement and a changing security situation, *"participants moved around and took advantage of the program in different ways and were not behaving as expected."* While there was general agreement that remote data collection has the potential to facilitate better tracking of mobile populations (and bring RMS costs down), it also brought a range of challenges, such as the lack of phones, stable connections, airtime, and stable electricity (to charge phones). A few respondents mentioned workarounds such as providing phones and airtime credit, and, in some cases, access to solar-powered chargers or compensation for participants. Having a dedicated team of enumerators, who could follow up with the same households for all RMS rounds and build rapport with the participants, was highlighted as being very helpful. A small number of respondents, who cited the impact of COVID-19 in forcing data collection to move from in-person to remote, cited delays in data collection and the potential for lower quality data.

Another challenge with identifying the sampling frame focused on the trade-off between the sample size and the available budget. Some respondents stated that RMS samples are intentionally smaller than they have observed in some impact evaluations, and yet the expectations for the RMS to speak to the impact of all program interventions remained high. Increasing sample sizes also has budget implications. These frequently cited challenges will be elevated as a topic for further exploration under this technical consultation.

DATA COLLECTION

In the **data collection** phase of the evidence life cycle, the focus is on assessing community needs, resources, and priorities, collecting the necessary data, and generating ideas to inform the analysis.[15] Challenges in this phase focused on timeliness, quality, and depth of data collection. We recognize, however, that these are not new challenges or unique to the RMS. The most frequently cited **timeliness** issues mentioned were:

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- Long surveys
- Programming & fieldwork delays
- Following up with participants
- Qualitative data is tougher to collect but yields richer insights

RMS data collection tends to take much longer than expected for a variety of reasons, such as delays in programming, difficulties in identifying participants, delays in scheduling field work, as well as the length of the survey, whether in-person or remote, and issues with finding and following-up participants. As mentioned, remote data collection is one area respondents agreed could not only bring down costs but could also help with scheduling and shorten the amount of time needed for fieldwork. In addition to shortening the survey, a few designers described how a modular approach could shorten the length of the survey by not asking about everything the RMS set out to examine in each round of data collection. This approach, where a module on assets, for example, was only asked every other or every third round, was thought to help with survey fatigue. Embedded enumerators were also mentioned in discussions about how to make an RMS more cost-effective, especially with designers. A few designers expressed the desire to be able to compensate participants for their time with small gifts (e.g., tea), which is not currently possible for many research studies.

There was agreement among respondents that quantitative surveys were not sufficient, and that qualitative data needed to be paired with quantitative data. This challenge is tempered by the fact that the majority of RMS currently take a mixed-methods approach. A few respondents recommended collecting more (or exclusively collecting) qualitative data as this yields the richest insights. Qualitative data collection, however, can take longer and has the potential to delay data collection.

15 Ibid

All of this fed into **data quality and depth issues**, such as,

- Shock Recall bias
- Risks of underreporting assets, overreporting hunger
- COVID-19 forced remote data collection, which led to additional issues
- Remote: lack of connectivity, phones, airtime, reliable power

Some respondents called out the tension between balancing participants' ability to recall information and survey fatigue, which can be exacerbated by very frequent rounds of data collection. Respondents, however, mentioned this could be countered by shorter intervals between rounds of an RMS. Recall bias may be somewhat inherent in that an RMS cannot always be perfectly timed to shocks. Additionally, as one activity-level user said, *"Recalling shocks can be a challenge for participants; bigger shocks are easier to recall. [Shock recall] was more of a challenge where there were smaller, idiosyncratic shocks."*

The risk of biased responses was another issue raised by some respondents. As one designer said, *"Participants tend to think they'll get something even if we tell them they won't, which has caused issues with reporting (underreporting assets, overreporting hunger)."* Also, as mentioned previously, the pandemic necessitated a pivot to remote data collection, which posed a challenge for data quality and depth. Nevertheless, we feel that we have made strides in improving timeliness in data collection and do not feel this area is the most pressing challenge to jointly address at this time.

DATA MANAGEMENT AND ANALYSIS

Within the **data management and analysis** phase of the evidence life cycle, the focus is on analyzing and interpreting the data collected.[16] In this area, respondents also focused on timeliness, quality, and depth issues. Respondents named several **timeliness issues**, such as,

- Takes too long to get results from portfolio-level measurement
- Findings (even preliminary) are not shared quickly enough to feed into decisions
- The validation process is not inclusive enough or hard to schedule
- Complex analysis – challenging to do in-house and difficult to understand by non-researchers
- Bandwidth to analyze one round of data and collect the next round in parallel

> ***"My understanding was that [RMS] is fast, and I was surprised at how 'not-fast' they are."*** – Portfolio-Level RMS User

Delays in sharing the preliminary findings with program staff meant these could not feed into timely decisions at the portfolio or activity level. These data analysis delays stemmed from several factors such as the review process (Donor-Designer-Program Staff) for validating findings, which could be improved and happen faster. One portfolio-level user emphasized that *"if we continue to get information…[in an untimely] manner, we run the risk of losing the audience because it'll be harder to get people in the room to hear what is coming out of these research opportunities."*

16 Ibid

When designers did not allocate enough time to validate the findings with a broad group of stakeholders, some, especially program staff, felt disconnected from the process. In cases where the validation process was very inclusive, however, scheduling time to present findings and allow for rounds of feedback from numerous stakeholders was very timeconsuming. Several respondents, designers, donors, and program staff applauded this approach, as they felt it created more buy-in for the RMS, especially when the validation happened after each round of analysis. One designer positively described their move to formalize the process of providing descriptive information about the indicators collected to Implementing Partners and the USAID Mission, which also allowed them to show trends of indicators over each round and keep staff engaged in the process.

There was agreement that the complexity of the RMS methodology and analysis make the data analysis difficult to understand for non-researchers. Moving data analysis in-house could help with turnaround time and buy-in, but respondents mentioned the need to first build program staff capacity to understand the analysis. However, this may not be as easy to carry out in practice. The complexity of the analysis makes the RMS more expensive as well. One activity-level user posited, *"Are the indices and analyses as complex, or are there more simplified tools for projects that don't have big budgets/statistical analyses?"*

Respondents also flagged the limited bandwidth to analyze one round of data and collect the next round in parallel. While most respondents wanted to receive RMS data faster, they were sympathetic to designers' time limitations. As one activity-level user said, *"Since surveys are happening so frequently, it is difficult to share out results when needing to plan for and distribute another survey so quickly."* A solution a few designers and program staff mentioned was to find ways to automate the data analysis and to provide data dashboards to view findings, even when still in the draft stage.

DISSEMINATION AND COMMUNICATION

This phase of the evidence life cycle focuses on **telling and showing** what was learned from the research, as well as **disseminating** the findings and recommendations.[17] Respondents were asked how the RMS is currently being shared with key audiences and about the challenges with the current strategies, as well as ways to resolve these challenges, outlined below.

How is RMS Information Currently Being Shared?

RMS users and designers reported that RMS information is typically shared through a standard report and presentation to donors, program teams, and sometimes community members. In the **dissemination and communication phase**, while respondents cited some issues with RMS timeliness, they emphasized issues with packaging results to promote learning and decision-making as well such as:

- Need more translatable findings
- Recommendations too broad
- Reports long and too academic
- Presentations not engaging enough
- Programs need more time to digest
- Tough to match weighty frameworks with decision-making

Lindsay Murphy for Mercy Corps

17 Ibid

Packaging findings in more translatable (accessible and understandable) ways was a key challenge, especially for program staff and donors. Respondents agreed that the RMS shared useful information, but as one designer said during results presentations, "There is lots of discussion about how what is being presented does not correspond with observations, discussions about some info that is contradictory." Some of this feedback could be linked to issues with a lack of buy-in or common expectations for the RMS, however, there was a feeling that recommendations were too general, too complex to understand, or not contextualized to the area covered by the project/activity or portfolio to translate into program pivots. Respondents expressed a desire for both more specific recommendations and results that were applicable to audiences beyond resilience program staff.

> ***"For users of the information, make this info tangible. Another challenge is helping individuals who work on programming that isn't necessarily "Big R Resilience," especially where the shock has hit everyone (in the community)..... Originally (only) people working on resilience specifically were focused on resilience programming, but everyone needs to be focused on resilience."***
> – Activity-Level RMS User

Results are packaged primarily in reports and presentations, which are long and complex, and do not invite RMS users to engage with the findings. As one respondent said, *"It would help if information could be shared in a language that end-users can understand. A lot of studies are still too academic. This is not to say we should not do academic studies in our sector, but that the RMS should be practical."*

RMS users also expressed a desire for more time to digest the findings. When there was too much information to digest, respondents, especially program staff, did not know what was important within a report or what to take away from presentations. One solution to this issue that several respondents mentioned was how useful they found sensemaking sessions. In the examples shared by respondents, these workshops, carried out by staff who worked closely with the program teams and RMS designers, really helped staff understand how to interpret RMS data and run simple statistics for the implementation area. This is a promising practice that can also help to strengthen the program team's capacity to implement an RMS. The packaging of results to make them relevant for learning also ties back to having clear expectations for the RMS. As a portfolio-level user pointed out, *"While it (the RMS) was not useful for mid-stream adaptations, it was useful for end of program learning and designing new programs."*

Sense-making workshops were noted as key in distilling RMS information and making it into something actionable. Respondents described difficulties in translating RMS results due to reports being lengthy, highly technical, and recommendations being broad. Respondents noted that sense-making workshops or other engaging forms of validation with partners are helpful in understanding RMS results and mapping a way forward to apply them. Similarly, one respondent described trainings that took place after each RMS survey distribution round, including M&E and technical staff, to talk about how to interpret RMS data and run simple statistics for the implementation area as a promising practice to strengthen program team capacity to implement an RMS. More on the challenges involved with information sharing and use are detailed under "Challenges and Solutions" below.

Unpacking results is not only needed for program staff. There are different audiences for the RMS results, and agreement that information should be shared differently with these audiences. As another activity-level user said, *"People don't tend to look at the reports. Need to develop briefs in order to communicate this information to get across the what and the how of resilience for relevant stakeholders. Needs to be in different forms to donors and stakeholders."* For advocacy purposes, national (high) level information can be used to influence policy makers, while at the local level, more detailed indicators presented in dashboards are more useful. RMS results could help local governments with their planning their own interventions, as well as budgeting for these programs and services.

Timeliness was also a challenge in disseminating the information to staff, donors, and partners. When reports are published many months after the research takes place, the ability to apply the findings to decision-making can decrease significantly.

ACTION AND ADAPTATION

In the last phase of the evidence life cycle, **action and adaptation**, the focus is on taking specific actions, including adapting program interventions and approaches based on the RMS results. [18]This is often stated as the main objective of RMSs; however, many challenges were cited that prohibit RMS results from being used. The most common challenges related to using RMS data were:

- Not known how to use RMS findings to inform program adaptation
- Wide variety of understanding of the data /(complex results)
- Limited staff capacity to make sense of and use results for decision-making

There was broad agreement that RMS findings have the potential to inform programming, but *how* to do this was often not clear. RMS users expressed that they need more guidance on how to apply the findings to programming, with several respondents making suggestions to package the findings in more user-friendly formats, such as dashboards, as opposed to lengthy reports that are hard to digest and to connect the findings and recommendations to their work in ways that make it clearer where and how they can act on these.

The complexity of the analysis and results means that there is a varied understanding of the data. Several respondents mentioned limited capacity, especially by program staff, to understand the results and the need for staff skill building. One portfolio-level user emphasized this point by saying, *"From end-user/program staff perspective: [they are] still struggling with resilience framing, matching up conceptually weighty frameworks with decision-making outcomes…[it] is tough…[to] make decisions off of that data quickly."* Several respondents also said that while they recognized the need to balance rigor, timeliness, and actionable recommendations, they wanted to see a lighter version of the RMS that was more aligned with program adaptation needs. As portfolio-level user believed it would be *"ok to sacrifice some of the rigor but better link (the RMS) to some of the questions local players want to answer."*

CROSS-CUTTING CHALLENGE: ROLE OF IMPLEMENTING PARTNERS

In addition to the challenges and solutions organized around the evidence life cycle in the previous sections, respondents also highlighted additional cross-cutting challenges related to the role of implementing partners.

Getting buy-in was a challenge that had relevance for almost every phase of the evidence life cycle. As one activity-level user said, *"(it)..starts with getting the team and donors onboard, but would suggest to not take that process for granted. Often (it) can take some convincing of staff etc. to buy into it."* The level of involvement by program staff in the design and data collection

18 Ibid

varied, but the majority of the respondents agreed that there could be more involvement in the RMS, especially the design and dissemination stages, and more ownership by program staff overall.

Respondents consistently highlighted the **importance of ownership** in the RMS process and its potential for greater impact when program teams have ownership over the product. In examples from two activity-level RMS users, it was found that when an RMS was designed and **implemented by a program in-house**, as opposed to outsourcing, it led to greater knowledge of a particular regional context, thus leading to an increased ability to predict shocks/stresses and data analysis quality through understanding variability. By having an intimate understanding of the context in which an RMS takes place, RMSs are most impactful when program teams are integrated into the design and implementation process of an RMS, regardless of whether an external firm is involved. We recognize that many implementing partners might not have the **capacity** to design and implement an RMS, but RMSs are not exclusively the responsibility of an external firm or even the monitoring and evaluation advisor. In order for RMS to be the most useful for decision-makers, **technical advisors and program leadership must also be involved**.

"RMS is seen as something that's outsourced by partners, consultants, or HQ; not something internal. By the time they do an RMS, most programs rarely use the data since it's being collected by someone else." – Activity-Level RMS User

RMS COST-BENEFIT

As RMSs require a significant investment in resources, this study wanted to understand not only how respondents assessed the value of an RMS but also their opinions on the cost-benefit of an RMS and suggestions for how to make the RMS model more cost-effective. In addition, respondents were asked about the comparative value of RMS as opposed to other sources of data and other types of monitoring and research, which is explained following this cost-benefit section.

When asked for a qualitative assessment of the cost-benefit of conducting an RMS, many respondents expressed that the **value outweighed the cost**. While many respondents could not necessarily speak to the exact cost of an RMS, they felt that compared to other tools available, an RMS is much cheaper to conduct. In one instance, a portfolio-level RMS user noted that even despite the local context being more resource-intensive due to security and moving people around, "RMS is overall much cheaper than other measurement platforms."

"The benefit outweighs the cost here. There's a huge benefit to be gained from an RMS. There are advantages to all types of approaches, but RMS sit in the middle; an RMS doesn't suffer from exaggeration or over-collection of data, and helps to improve responses to shocks through the findings." – RMS Designer

Despite there being an expressed value for money, respondents also emphasized potential cost inefficiencies, notably if RMS information is not shared in a timely manner. One portfolio-level RMS user stated that "there is momentum with RMS data now, but I'm worried we will lose that momentum because the data isn't coming in at an appropriate timeline. If we continue to get information in an untimely manner, that value-add will drop." The user continued to note that if the value-add drops, programs risk losing the engagement of donors and implementing partners working with RMS data. Another portfolio-level RMS user built on this point, emphasizing that there is only a benefit to an RMS if its data is used.

Ways to Improve Cost-Effectiveness

As previously mentioned, the use of local firms or implementing partner staff can improve the cost-effectiveness of the RMS. Respondents recommended other strategies, such as the use of mobile phone surveys and shorter questionnaires, building internal capacity, collecting data seasonally, and better data coordination, which are detailed below.

MOBILE PHONE SURVEYS AND SHORTER QUESTIONNAIRES

Many respondents suggested implementing mobile phone surveys and reducing questionnaire size to speed up survey timing and reduce the cost of survey implementation. One RMS designer reported working in an area where program target intervention areas were far from the city center, making survey costs high due to the logistics of facilitating enumerators' travel to survey sites. By making a survey tool reasonably sized, this designer suggested surveys could be distributed via phone, thus reducing overall survey cost.

Another respondent highlighted the importance of shorter questionnaires leading to more actionable results. This respondent expressed their experience with bloated questionnaires, leading to the inability to act on those results. This respondent suggested focusing on one line of inquiry to obtain actionable data quickly, potentially staggering lines of inquiry to keep the data timely and relevant.

BUILDING INTERNAL CAPACITY

Respondents emphasized the use of local and embedded enumerators or building teams' capacity to conduct RMSs internally as potential cost-saving opportunities. As mentioned previously in this report, typically, the implementation of an RMS is outsourced to consultants or external firms. Respondents suggested, however, that strengthening the skills and capacity of program teams to collect the data and conduct the analysis to implement an RMS in-house would significantly reduce RMS costs.

"So far, we've been relying on external expertise and firms which charge very high rates to conduct this work. Providing this capacity to implementing partners would be much more cost-effective to drastically reduce costs paid to consultants." – Activity-Level RMS User

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REDUCING FREQUENCY OF DATA COLLECTION

Some respondents suggested that spacing out the frequency at which data is collected could reduce overall RMS costs. For example, one RMS designer working in Kenya noted that seasons tend to be three-four months each, and surveying every season instead of surveying every month could drastically reduce RMS costs. This designer suggested that picking up seasonal effects in surveys could also be retained by surveying every 6 months and asking for a 6-month recall. Decisions like this are often driven by the objective(s) of the RMS, the budget constraint, mitigating respondent fatigue, and other logistical considerations.

DATA COORDINATION

Finally, some respondents spoke to the lack of coordination around RMS data use that could be greatly improved, thus reducing cost. One RMS designer, in particular, noted that the overlap with multiple programs trying to measure the same thing resulted in repetitive and unnecessary data collection. This respondent suggested that having a centralized database or coordination mechanism to minimize repetition could reduce the cost of implementing an RMS.

ALTERNATIVES TO AN RMS

In addition to the cost-benefit analysis, respondents were asked whether there were alternatives to an RMS. Fewer than half suggested possible alternatives. Respondents, however, named a variety of potential alternatives. This included:

- Developmental evaluations, where evaluators are embedded with the program teams
- Purely qualitative techniques, such as outcome harvesting
- Using causal dynamics to understand key actors instead of looking at populations in a silo,
- Using household economy analysis based on livelihood profiles and zones
- Better use of secondary sources of data, for example, from a strong National Bureau of Statistics
- Use of high-resolution satellite data to answer questions that do not need to be included in surveys necessarily
- Use of behavioral data (e.g., social media) to understand how people behave during or after a disaster

ARE RMSs LIVING UP TO THEIR POTENTIAL?

This study sought to understand whether **RMSs were successful at meeting their objectives** and if they were living up to thier potential, which is essential for evaluating the relevance and usefulness of the RMS. Respondents had mixed responses to this question. Some respondents reported that RMS perform well at measuring household resilience capacities, providing context and nuance that would not otherwise be gained through traditional monitoring and evaluation. As one designer said, *"At the end of the day it's [RMS] always gonna be much more dynamic. We're not going to be able to see that with a straight baseline endline because we'll miss all the bits in the middle."*

However, respondents said that if an RMS could provide *real-time data,* it would better enable their programs to make *timely decisions* and enable their partners to shape their activities in the face of shocks. While not in real-time, respondents reported several instances where RMSs informed future decision-making, as discussed in the "Benefits" section. When respondents were asked about **the importance of an RMS**, they highlighted the promise of a well-designed and well-executed RMS to ultimately improve outcomes for program participants.

Others felt that RMSs had the potential to be a strong resilience measurement tool but fell short in terms of the timeliness of data and data accessibility. In some cases, the data was not accessible because the findings were not sufficiently explained or contextualized, decreasing their relevance for programming. In other cases, the findings were not broadly shared and did

not get to the right people who could act on the findings. Many respondents expressed the desire for comparability across RMSs, however, there was an acknowledgement that the complexity of the RMS and the areas where programs operate make it difficult to generalize across distinct contexts and that, with one activity-level user saying *"every community and household adopts different patterns/strategies to recover."* A Designer acknowledged the need for a RMS standard tool and methodology, a central database or repository, and for improved coordination across stakeholders involved in the RMS, to enable comparisons. Another Portfolio-Level User, said, *"if done right, RMS could add a lot of value. It is important to understand how people are reacting in the moment and the extent to which these decisions are facilitated by our programs, and if these programs are helping people to be more resilient. We need to be able to move quickly and be flexible with the RMS. Ensuring an RMS is contextually relevant is more important than trying to standardize these."*

FUTURE OF RMS

In addition to the suggestions respondents gave on how to improve the RMS, respondents also had a lot to say about a future, next-generation RMSs. Many suggestions came up in the context of improving elements of the RMS, some previously mentioned, such as connecting to other data sources, including behavioral data (e.g., cell phone use patterns). As portfolio-level user said, *"(it) goes back to what you can do in a household survey, a comprehensive look at household resilience. What can you get in an RMS if you're not connecting it to some other data and other monitoring or evaluation approaches that are underway?"*

One designer stated that as satellite data quality improves, *"Geographic Information System (GIS) work will become more sophisticated and combining an RMS with these other data gathering techniques will give us a fuller picture in terms of behavioral change."* Several respondents expressed hope that this could help data analysis move closer to being real-time and serve to triangulate particpants' perceptions of shocks to actual shocks experienced. Some respondents felt that the RMS was unable to provide the full context without connecting to other data sources. As one portfolio-level user said, *"if we are not looking at process tracing, outcome harvesting, geo coded data, we are not getting the full picture and are trying to paint a picture with one color."*

Automating data collection and analysis (data cleaning, dashboards) was another frequently cited suggested innovation/recommendation that the RMS should be taking advantage of in the future. Regarding the promise of remote sensing data, one portfolio-level user said, *"Hopefully data can be used to help calibrate models that are built off remote sensing data. Built into passive data collection that will make it less necessary to have projects that collect this data."* Reducing the data that needs to be collected by an RMS will also help reduce the timeliness issues.

Other recommendations that excited respondents were the potential to use the RMS for predictive analysis. As one portfolio-level user said, ideally if, *"we know a crisis is about to hit while people are really stretched, here's (RMS results) how to adjust programming to account for that."* This user added that *"currently (we) don't take into account vulnerabilities as much as we could, and predictive work could help with that."*

A few respondents expressed the desire for the RMS to be used more across a portfolio of programs in a country or region, as opposed to one program, improving its ability to be used for decision-making, one portfolio-level user urged the sector to *"think about resilience as the interplay between communities and household and market."* This user explained that the interplay would be missed if RMS only included a household survey and that there is a need to focus on how people interact with markets. e.g., producers and markets in rural settings.

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Next Steps in the Technical Consultation

The next phase of the project is to find ways to address the most pressing challenges with RMS. This rich analysis from the literature review and key informant interviews in this landscape review will inform a series of deep dive discussions with a select group of RMS designers, funders, and users of the information (e.g., program implementers, USAID mission staff). As emphasized in the earlier cost-benefit discussion, there is agreement about the potential value of an RMS, however, there is also a consensus that the RMS has not yet reached its full potential. While respondents named a large number of challenges with the existing RMS, the number of promising solutions, opportunities to improve the RMS, and ideas for what a future RMS might look like give us hope that we can collectively tackle the challenges.

The deep dive topics listed below will delve into these three initial areas aligned to the respective phase of the evidence life cycle. These discussions will take place March – June 2023 and will be socialized with the resilience community in a variety of ways (briefs, blogs, and workshops).

- **Sampling frame identification** (Design)
- **RMS timeliness** (Data Management and Analysis)
- **Packaging results to promote learning and decision-making** (Dissemination, Communication and Adaptation)

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Annex 1: Key Informant Interview Protocol

1. Introduction

a. Thanks for agreeing to this interview!

b. As mentioned in the introductory email, the purpose of this interview is to gain the perspectives and experiences of recurrent monitoring system (RMS) designers and users to better understand the value of RMS, challenges and opportunities, and the future of RMS for resilience measurement. In addition to conducting interviews like these, we are also reviewing existing RMS reports and study protocols to understand the full range of RMS designs deployed to date. This literature review and key informant interviews will inform a series of technical consultations (which you may be invited to attend if you are interested!). There will be several outputs of this work including:

i. A literature review detailing methodological approaches of RMS to date (tentatively available March 2023)

ii. A brief narrative report of these key informant interviews, detailing major themes and issues (tentatively available March 2023)

iii. A typology or menu of RMS to date (tentatively available September 2023)

iv. A learning agenda for future RMS (tentatively available September 2023)

We commit to sharing all outputs of this work with you for your generous participation.

c. We would like to record this conversation for transcription and note-taking purposes. We will not attribute anything you say to you personally—and we want you to feel comfortable speaking freely about RMS. All recordings and transcripts will be erased after 90 days. These recordings and full transcripts will only be accessible to the two interviewers conducting the interviews (Jenny Morgan and Ashton Bitton) and only anonymized interview matrices with transcribed responses to individual questions will be accessible to the larger team (Jill Scantlan and Brad Sagara). Do I have your permission to record?

2. Background

a. In your own words, tell me what an RMS is

i. Probe: In your experience, what are the primary objective(s) of an RMS? How effective/successful would you say RMSs have been in meeting these objectives

b. Tell me about your engagements with RMSs in the past – what was the nature of your role, how many RMSs have you worked on/with, etc. and who was the funder?

i. Can you tell me a bit more about the methodology used in the RMS?

ii. Probe: Was the survey shock-triggered or aligned with the program cycle? Number cycles/rounds (frequency of data collection)? Method of data collection (remote, embedded numerators, etc.)?

3. RMS Value Proposition

a. What benefits have you personally observed/experienced as a result of information and analysis provided through an RMS? Please provide specific examples (RQ1)

i. Probe: who was the intended audience? How was the information shared? And used (that you know of)?

b. Under what conditions do you think RMSs are particularly useful to meet stated objectives? This could be in terms of geographic and programmatic context, policy environment, organizational structure/culture, etc. (RQ1)

c. What's your opinion on the cost-benefit of RMSs?

i. Probe: What do you think would make RMSs more cost-effective?

ii. Probe: What is the comparative value of RMSs as opposed to other sources of data, annual monitoring, and impact evaluation?

4. **RMS challenges and opportunities**

   a. From your perspective, what have been the biggest challenges you've confronted in your role with RMSs in the past that were difficult or impossible to resolve? (RQ2)

      i. Probe: were these within your control? Do you have ideas for possible solutions to these challenges?

   b. From the perspective of RMS designers / end-users, what were some of the challenges they confronted?

   c. What do you wish RMSs could do that to date it hasn't currently done? Put differently – where do you think there is unrealized potential for RMS? (RQ1)

5. **The future of RMSs**

   a. From your perspective, are there any innovations RMSs should be taking advantage of? (RQ3)

   b. What does the future of RMSs look like? (RQ3)

   c. What alternatives are there to RMSs?

6. **Key resources and next steps**

   a. Is there anybody else we should meet with to discuss RMSs?

   b. Are there any RMSs that you know of beyond the bibliography I've shared with you?

   c. Are you interested in participating in a working group focused on RMS?

7. **Thank you for your time!** We will share the outputs of the literature review / Key Informant Interviews when publically available (tentatively March 2023) and the menu/typology and learning agenda when publicly available (tentatively September 2023)

Annex 2: Literature Review Research Questions

1. What are the stated RMS research questions/objectives?
2. Where have RMSs been conducted to date, and over what time period?
3. What sampling strategy do RMSs tend to employ in terms of timing, frequency, duration, project v. portfolio, sample size considerations, etc.?
4. What outcomes, resilience capacities, and other indicators of interest do RMS to date typically measure? How are these captured quantitatively/qualitatively?
5. What shock contexts have RMS to date typically been deployed in, and what are the primary shock indicators?
6. What are common units of analysis (e.g., household, community, etc.) and what analytical strategies do RMS to date typically use?
7. How have RMSs leveraged digital data capture, embedded enumerators, and other data collection technology/innovations?
8. Cost?

Annex 3: RMS Literature Review Bibliography

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