

Guide for Adopting Remote Monitoring Approaches During COVID-19

BACKGROUND

The U.S. Agency for International Development (USAID) maintains staff and operations in more than 80 countries around the world, all of which the COVID-19 pandemic will disrupt. USAID remains committed to protecting the health and safety of our staff, while continuing appropriate oversight of our programs and ensuring the accountable and effective use of U.S. taxpayer funds.

In the current operating environment, USAID and implementing partners face new challenges in implementing activities, monitoring progress, collecting data, and tracking indicators. As we adapt our approaches, we will work with implementing partners to find innovative, responsible, and safe ways to monitor and evaluate programming. Digital tools can support novel approaches to remote monitoring. Responsible use of digital tools also supports Operating Unit (OU) alignment with the Digital Data Collection mandate in the Agency's new Digital Strategy.

OBJECTIVE

This guide aims to provide information for Agency staff and implementing partners on remote monitoring techniques and when they can be employed. We encourage use of this guide to identify and pursue appropriate remote-monitoring approaches for your needs.

CORs/AORs and Activity Managers should work with implementing partners to document updated approaches in each agreement's plans for monitoring, evaluation, and learning (MEL), and should upload these amended Activity MEL Plans into the Agency Secure Image and Storage Tracking System (ASIST) as soon as possible. This can be done in collaboration with Mission and Washington Bureau M&E Specialists, as appropriate.

This guide will take you through a few major questions to ask when working to identify and deploy remote monitoring tools:



[What information do we want to collect?](#)



[What should we consider when monitoring remotely?](#)



[What tools will allow me to continue monitoring remotely?](#)



[What geospatial tools will help with remote monitoring?](#)



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What information do we want to collect?



Remote monitoring can be used for performance monitoring and context monitoring.

Different methods of remote monitoring can yield different types of information. Knowing the type of information you need and who you need it from will help to narrow what kind of tool should be used.

For performance monitoring needs, COR/AORs, Activity Managers, M&E specialists, and implementing partners should discuss which key performance indicators can be collected remotely to monitor progress toward expected results, while considering what needs to be done to ensure compliance to award conditions. If implementation of an activity has been altered, missions and partners may want to gather feedback from beneficiaries on their current needs and on the level of service provision.

Remote monitoring can also be used for context monitoring. As situations evolve, collecting context-specific data can help USAID and partners identify changes in the operating environment. Partners may want to collect information on how policies to combat COVID-19 are affecting people in the country or region they operate in. For example, lockdowns and social distancing requirements can affect household income, thereby necessitating adaptation of USAID programming to meet new needs.

Reporting validation can be done through a combination of tools. For example, information collected from individuals by SMS could be supplemented by phone calls to trusted individuals in the community.



CASE STUDY

Remote monitoring by phone in Ethiopia

To understand the food security and socio-economic impacts of the COVID-19 crisis, USAID/Ethiopia has developed a community of practice with DFID, NGO partners, World Bank, and IFPRI. They have regular check-in calls to coordinate data collection efforts.

What have they done to harmonize data collection efforts?

USAID/Ethiopia began simply. They started by adding a small number of new questions to activity phone surveys. They then shared these questions with other organizations to reuse. Organizations that had already collected beneficiaries' phone numbers through their activities were able to move quickly. They identified the percentage of beneficiaries they had contact numbers for in different areas of operation. This allowed the community of practice to interview a subset of beneficiaries across the country.

What did this result in?

Due to the crisis, some donor-funded activities had been paused or delayed. The phone surveys are helping partners understand how they need to adapt their activities to meet the changing needs of the population. This will assist them to hit the ground running when they are able to continue working.

If you would like to collect information on the economic impact of COVID through your data collection efforts, this [International Growth Center \(IGC\) questionnaire](#) provides a template.

Please look out for further Agency notices on monitoring resources and requirements that may affect your activities.

What should we consider before monitoring remotely?



Before adapting a monitoring approach to include remote monitoring, ask yourself:

1. **How were we collecting data before COVID-19?** Review existing MEL plans and take inventory of what data our activities were collecting, how they were collecting it, and how they were reporting it.
2. **How are we collecting data now?** Have a conversation to review how MEL practices have changed over the last months and update relevant MEL and context monitoring plans.
3. **What are the current gaps in the MEL plan?** Review the updated MEL plan and discuss gaps in performance and context monitoring. For example, some routine data collection methods such as site visits may no longer be possible.
4. **How can the existing MEL plan be adapted to address gaps?** Depending on the indicators and the status of the activity, remote approaches may complement other data collection methods.
5. **What is the best cadence to check in on our monitoring approach?** As the operating environment shifts, planned check in calls with colleagues and counterparts can assist organizations to adapt.

While discussing how the MEL plan can be adapted, consider the following:

1. **Could existing communication systems be adapted for monitoring?** For example, if a partner is already sending project beneficiaries SMS (text) messages (e.g., on crop prices, vaccination campaigns, project activities), consider if it makes sense to adapt that system to collect information. Informed consent, [access](#), cost, and [privacy](#) should be considered.
2. **What monitoring systems are still operating outside of our activity?** Consider what other organizations or projects are collecting relevant data that can be leveraged; these could include partners or other organizations using institutional monitoring systems or third party data.
 - Consider conducting a rapid analysis to identify existing **institutional monitoring systems**. For example, Famine Early-Warning Systems Network (FEWSNET) has data that range from market economics to crop yields that are measured both remotely and directly. Where possible, leverage existing institutional monitoring systems that continue to operate in-country.
 - **Third Party Monitoring (TPM)** mechanisms may have already switched over to remote monitoring techniques and have valuable insights to share with other activities.
 - **Data-sharing agreements** with local institutions (e.g., universities, ministries, community based organizations) could reduce the need for duplicate data collection. Identify reliable partners that are continuing to collect relevant data (e.g., community based information systems). USAID representatives can discuss data sharing agreements with RLOs, GC, or other Agency legal representatives to ensure alignment with data protection and other policies. Consider whether the data - in whole or in part - could be responsibly shared with host-country counterparts or the wider development community.
 - Partnerships with organizations that specialize in the **collection and analysis of big data sources** could provide analysis for reporting and decision-making. For example:
 - i. [Flowminder](#) used near-real-time meta-data from mobile phones to monitor and analyze population displacement after the earthquake in Nepal in 2015 and continues to make its software available in a wide range of instances, including with respect to health programs; and
 - ii. [HOT COVID-19 Response](#) from Humanitarian Open Street Mapping has a three-pronged approach to identify populations and places most at-risk, and to support governments, civil-society organizations (CSOs), and non-governmental organizations (NGOs) with daily maps.

- **Local private-sector call centers** that can be used to conduct computer assisted telephone interviews (CATI) or interactive voice response (IVR) surveys, or data collection and analysis firms can be leveraged to continue collecting data remotely.
 - **Local media and communication firms** that invest in regular market research and media consumption surveys could aid missions and implementing partners in understanding the information preferences of beneficiaries. Open source media consumption research may be available, in addition to fee-based services. Consider when such firms might be able to address remote data collection needs across an entire Mission portfolio or CDCS, thereby driving economies of scale, deeper insights and effectiveness.
3. **Are there trusted key informants¹ in areas that our activity operates in?** In the case that beneficiaries cannot be reached by phone or mobile internet, monitoring through key informants (e.g., field-based project staff, extension workers, community health workers, non-governmental groups) may be an option if the key informants have access to SMS, voice calls, or mobile internet. If necessary, partner M&E specialists may be able to remotely train key informants to collect monitoring data. Most digital data collection apps are able to be used offline to collect data. This enables enumerators to collect information on their device while offline, and then send it at a later time, when the device has connectivity (e.g., on top of a hill, back at the regional office). Consider incorporating geolocated data to allow data quality checks.
 4. **Does our activity or Mission have a GIS specialist?** If so, consider asking if the Mission has updated USAID Activity locations, imagery for those locations, and if any projects have used or are currently using remote sensing for monitoring.

If Missions or activities need to collect data from beneficiaries, consider:

1. **What are the levels of connectivity in areas of interest? What are mobile phone ownership demographics?** Many digital data collection tools require mobile or internet connectivity to send data. Some populations that do not use mobile phones or the internet could be left out of data collection efforts. When building out a strategy to collect data directly from beneficiaries, consider issues of access, security, use, and affordability of mobile phones and internet: someone may live in an area with mobile connectivity, but cannot afford to buy phone credit or chooses not to use mobile internet.

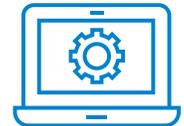
Families may share one phone among multiple people. Implementing partners may have one phone number for multiple beneficiaries in their database, e.g., a husband and wife attending different events may sign in using the same number.

Think about who might be missing from any data collection efforts and consider how this may bias results. Consider how these issues can be mitigated (e.g., are there other data sources that can help to triangulate information collected?).
2. **How will demographics of the target population affect access and use of digital technology for remote monitoring?**
 - **Gender:** There is a gender digital divide in many countries where USAID operates. In countries where mobile phone ownership and internet use is lower among women than men, consider how this will affect any monitoring efforts. With the above example in mind, how might shared family phones impact how a woman or man responds to surveys if their privacy cannot be guaranteed? Account for any biases that monitoring remotely could introduce.
 - **Age:** Mobile phone ownership and internet use is generally lower among older populations than youth. Consider how this will affect monitoring efforts and account for biases.
 - **Disability:** Hearing impaired and visually impaired individuals may face difficulties accessing and using mobile phones or mobile internet without assistive technologies. Consider how best to include persons with disabilities before choosing a remote monitoring tool.

¹ Key informants are respondents chosen for their first-hand knowledge about a topic of interest.

3. **How will literacy levels affect remote monitoring efforts?** Consider the literacy level of the target population before choosing a remote monitoring tool. If working in low literacy settings, consider using Interactive Voice Response (IVR) or voice calls.
4. **How will we ensure data privacy and security of my target population?** Safeguarding data and ensuring informed consent is obtained is necessary. Consider potential privacy and security risks and mitigation efforts at every point in the data management lifecycle. USAID has put out a [guide](#) to help Mission and partners think through responsible data use. Also review [ADS 200mbe](#) for more information on informed consent, and [ADS 508](#) for USAID's Privacy Policy.

What tools will allow us to collect data for remote monitoring?



A number of tools² can be employed for remote monitoring, including phones, Internet-enabled mobile phones, and satellite imagery. To decide which tools are best suited to your need, ask the following questions:

1. **Can our population of interest be reached by mobile phone?**³ Use of mobile phones may differ due to a number of factors including accessibility, affordability and adoption, as well as demographics such as gender and age. Mobile coverage in one area does not necessarily mean you can reach those that live in the broader region by phone.
 - ⊗ **NO.** In areas of low or no connectivity, it will be difficult to collect data remotely. Consider using a key informant that has access to your population of interest if they have connectivity. Other approaches include [remote sensing](#) or using existing data sources.
 - ⊙ **YES.** Consider using SMS and voice calls for remote monitoring. If you have already collected your beneficiaries' phone numbers as a mode of contact, this can be a quickly deployed method of data collection. If your population of interest has low literacy rates, consider using IVR or voice calls.

If implementing partner staff are still managing activities then voice or video calls can be considered for a virtual site visit. This method can also be considered for context monitoring. For example, in partnership with a research firm that can collect information from a random sample of respondents in the area of interest.

For more information, see USAID's resources on mobile data collection [From Paper to Mobile](#). Additionally, J-PAL has published guidance on [Best Practices in Conducting Phone Surveys](#), specifically focused on collecting data using voice calls.

- i. **SMS Data Collection** enables data collection through mobile phone-based SMS surveys. SMS surveys are most suitable for short surveys, no more than 5-7 questions, to decrease dropout rates. Incentives can help increase responses, as well as arrangements with mobile operators to ensure that it is free for respondents to respond. Many countries have local providers available. Illustrative regional/international providers include [Viamo](#), [RapidPro](#), [Frontline](#), [Magpi](#), and [Geopoll](#). Illustrative providers working in beneficiary feedback include [Kuja Kuja](#).
- ii. **Interactive Voice Response (IVR)** enables data collection through mobile phone-based structured voice surveys. IVR surveys are also suitable for short surveys, no more than a few minutes, to decrease dropout rates. They can also be used in low literacy contexts. Generally less expensive than voice calls, but set up costs can be expensive. Many countries have local providers available. Illustrative regional/international providers include [Viamo](#), [EngageSpark](#), and [Magpi](#).

² In many countries where USAID operates, local firms are available for remote monitoring services.

³ Check data sources like [GSMA Mobile Connectivity Index](#) to find this information.

- iii. **Computer-Assisted Telephone Interviewing (CATI)**⁴ is a telephone surveying technique in which the interviewer follows a script provided by a software application. This can be done through call centers and local research firms. It requires enumerators to make and record individual calls, which will be more resource intensive for a large target population. The calls can be longer than IVR, but should still be short to ensure high response rates. Call center workers are likely working from their homes. To ensure data quality, consider how metadata such as length of phone calls can be analyzed, and how phone numbers can be verified. Providers may include local research firms and call centers.
 - iv. **Phone surveys** can also be conducted without computer assistance. This would require enumerators to make and record individual calls, to conduct short surveys, and to record the responses on paper, and to transcribe electronically. This option becomes more difficult at scale.
2. **Does the population of interest use mobile Internet/WiFi?** Use of mobile internet differs widely due to accessibility, affordability, and adoption. Although a map may show that a region has access to mobile Internet, actual coverage may vary significantly within the area. If the population does have access to mobile Internet, gender, age, and literacy levels should be taken into account when choosing a tool.
- ⊗ **NO.** Avoid deploying any solution that requires an internet connection to areas without mobile internet coverage. Consider using a remote monitoring tool that uses SMS, phone calls, or remote sensing. For example, satellite imagery if you are looking to assess crop yields.
 - ⊙ **YES.** Consider using internet-enabled mobile solutions, such as a mobile web survey, two-way messaging applications, and mobile applications.
 - i. **Web Surveys** can be used to collect information through a link that respondents open in their mobile phone's Internet browser. These surveys can be accessed by mobile phone or computer. Illustrative providers include local firms, [GeoPoll](#), [YouGov](#) and [RIWI](#).
 - ii. **Mobile Apps for Two-Way Communication** can be used to collect structured and unstructured information from target populations or push information out. Two-way messaging apps work best if a population is already using them as a mode of communication. This lessens any issues in uptake of a new application. Consider identifying the most popular messaging apps for the target population. For example, UNICEF's [U Report](#) sends polls on Facebook Messenger to voluntary respondents on issues, including COVID-19. Illustrative platforms include Facebook Messenger, Viber, and WhatsApp. Please note that many of these apps are not approved by USAID's CIO for use by USAID staff, but partners may propose monitoring using these apps.
 - iii. **Mobile Apps** can also be used to collect data. It is not recommended to develop and deploy a new app that would require funding, training, and uptake unless the situation warrants it. In alignment with the USAID-endorsed [Principles for Digital Development](#), existing products could be re-used. If there are mobile applications already in use to collect data (e.g., mobile applications that collect information from health workers), they could be adapted to collect additional information.
 - iv. **Media Content Analysis** can be used to track trends in online news articles, comment threads, and public social media conversations around topics of interest. Data collection efforts should be guided by the Terms of Service agreements between users and platforms.

4 J-PAL [Best Practices in Conducting Phone Surveys](#)

What geospatial remote monitoring tools are available to help track activities?



Geospatial tools can support activity and context monitoring across an entire portfolio. This set of questions can help determine what is possible.

1. **Do we know the location of our activities?** Knowing the location of USAID activities allows better management, monitoring, and coordination of activities. It opens up the ability to request geographically targeted reporting and to monitor projects through remote sensing.
 - ⊗ **NO.** Since 2014, USAID has been contractually empowered to receive the geographic locations of all USAID activities from implementing partners. USAID OUs are required to have Activity Location Data collected at the most detailed geographic level appropriate for each activity they implement and to include activity location data collection and submission requirements in awards, as appropriate (see ADS 201 and ADS 579 Mandatory Reference on Activity Location Data). The COR/AOR works with the implementing partner to mutually coordinate this effort. COR/AOR can consult with Missions/Bureaus GIS specialists and/or the [GeoCenter](#) for both logistical and technical assistance in this process.
 - ✓ **YES.** This will enable geographical monitoring of projects. The extent to which this is possible has a few dependencies:
 - i. **How implementing partners report their activity locations.** Activity locations are typically reported to COR/AORs through emails and spreadsheets. Organizing this data can take time, which impacts the usefulness of the data. USAID staff can reach out to Mission GIS specialists and staff at the [Lab's GeoCenter](#) to help with this process and can support a centralized interface for IPs to report USAID activity locations, thus greatly increasing the value of the data for near real-time monitoring. This has been done or is in process for USAID Missions in India, Madagascar, Ukraine, and Cambodia, allowing the collection of information on their mission portfolio and the locations of all activities in a single afternoon.
 - ii. **Specificity of the location.** The greater specificity of the location of the USAID activities (i.e. settlement vs province), the more tools will be accessible for remotely monitoring those activities. Both the locations of implementation and the locations of impact can be reported for different indicator metrics. Keep in mind the need for appropriate and responsible data and personally identifiable information protection when determining who needs to have access to this data and how it will be controlled.
 - iii. **Frequency of updates to activity locations and site visits.** A centralized interface and database can help implementing partners update and share their activity location information more frequently and at less of a burden to both IP and Mission/Bureau staff. Tools that are already in place can quickly be modified for more frequent reporting in order for USAID staff to remotely monitor their projects. As is often the case, IPs may be monitoring their activities at a higher frequency and specificity than is usually reported to USAID. It may be possible to have the IP share the data or interface that they are using with the COR/AOR for the project at hand.
2. **Do we expect our activity to result in any changes in the physical landscape in the locations of implementation or impact?** Any changes to the surface of the earth can be detected through satellites or aerial imagery at scales from whole countries to individual cars. This is Remote Sensing. For example, Remote Sensing can detect changes in infrastructure (i.e. buildings and roads), natural habitat (i.e. forests, savannas, etc.), agricultural lands, and even the movement of heavy equipment.
 - Consider using satellite imagery or tools derived from satellite imagery to analyze change of your project area over time. For over 40 years, satellite imagery has been collected every 16 days or less for nearly every spot on Earth. This provides a history of man-made structures and landscape use. USAID and IPs have access to a high-resolution satellite imagery archive available through Maxar Technologies. You can order images through the

USAID GeoCenter’s [request form](#) at no charge to USAID projects. Imagery requested through the GeoCenter has helped the Agency to remotely monitor 57 USAID activities in 48 countries and leveraged more than \$67 million for USAID and IPs.

There are additional remote sensing services used to identify phenomena such as floods and droughts, crop yields, deforestation, reforestation, air quality, urbanization, and even human population (e.g., [SERVIR](#) and [FEWSNet](#)). Changes in the trends of any of these metrics may provide indication of or information for your USAID project.

- i. Many USAID projects and most all surveys require an estimate of population and dwellings for the areas of interest. These can be obtained through Remote Sensing data. Remote monitoring methods (e.g., phone surveys) may also require an estimate of population and dwellings which can be obtained through Remote Sensing data.
- ii. Heavy and frequent cloud cover can preclude the use of Remote Sensing. Since 2014, satellite radar data, which can see through clouds, has been collected weekly for most every area of the Earth and is available at no additional cost. Higher resolutions satellite radar data, which can detect construction equipment through trees, is available commercially and on [request](#).
- iii. All activities, regardless of their sector, can impact the landscape. Don’t underestimate the impact of democracy and governance programs on detectable landscape changes. Changes in local, regional, and national policy can have a significant impact on land use. This land use can be detected through Remote Sensing. Cases in point include illegal gold mining and logging, production of illicit crops, and land tenure reform, and land management practices. Therefore, knowing the locations of implementation of democracy and governance programs can help USAID to detect landscape changes through Remote Sensing and assist us in supporting local governments.

Where can we find additional public resources?



1. USAID Learning Lab: [Monitoring, Evaluation and Learning during the COVID-19 Pandemic](#)
2. Considerations for USAID Mission Staff for Programmatic COVID-19 Preparedness and Response: Digital Technologies and Data Systems
3. [COVID-19 Guidance for Implementing Partners](#)
4. DHS Data and COVID-19: [possible prevention indicators](#) related to COVID-19
5. World Bank blogpost on M&E during COVID-19: [Bowling in the dark: Monitoring and evaluation during COVID-19](#)
6. PopCouncil article on knowledge, attitudes, and practices related to COVID-19 in PEPFAR areas/critical populations in Kenya: [Kenya: COVID-19 Knowledge, Attitudes & Practices](#)
7. International Advisory, Products and Systems Ltd. (i-APS)’s [Guidelines for adapting third-party Monitoring](#)
8. ODI Reports on Mobile Phone Surveys: [Using mobile phone surveys to track resilience and post-disaster recovery: a how-to guide](#) and [How does resilience change over time? Tracking post-disaster recovery using mobile phone surveys](#)

ANNEX**ANNEX 1: PEPFAR Technical Guidance during COVID****Excerpt: Reporting and SIMS****Is the PEPFAR Quarter 2 reporting deadline still the same?**

Recognizing challenges with site-level access in countries across the world, the PEPFAR Quarter 2 reporting deadline has been moved to Friday, June 5th. Detailed guidance is forthcoming from SGAC_SI. We will closely monitor PEPFAR program implementation in the ensuing weeks and provide updated guidance as needed for Quarter 3 reporting.

Are we expected to continue SIMS implementation and reporting?

All PEPFAR programs are under Chief of Mission authority therefore country teams and implementing partners should follow Embassy Front Office direction on all programming that requires personnel movement. There are updated WHO guidelines and public health recommendations regarding personal safety to determine the feasibility of in-person site monitoring visits during the COVID-19 response. Please also refer to the Operational Issues and Infection Prevention and Control sub-sections of this guidance document. We recognize that SIMS implementation and reporting has, and will continue to be, affected during this time. Similar to guidance issued regarding MER, the SIMS Q2 reporting deadline has also been extended. The SIMS FY20 Q2 import deadline is extended to May 29, 2020 (as per usual, this is one week prior to the quarterly DATIM data entry close deadline; now June 5 for FY20 Q2).

Additional SIMS reporting guidance is forthcoming from SGAC_SIMS@state.gov