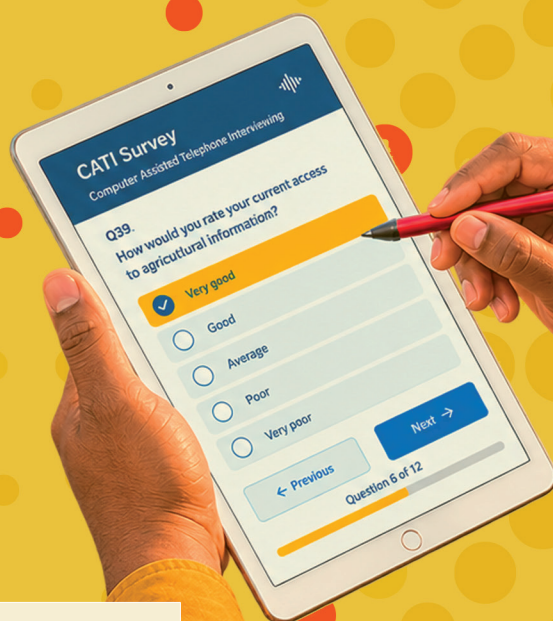


CATI

Computer- Assisted Telephone Interviewing Survey Guideline



Programme	Agile Data
June 2026	
Publication Code	SI-G-002
Version 1.0	

What This Tool Is

Computer-Assisted Telephone Interviewing (CATI) is a data collection method where trained enumerators conduct surveys over the phone while entering responses directly into a digital questionnaire platform. By combining the flexibility of human-led interviews with the efficiency and structure of digital data capture, CATI has become a widely used tool for monitoring, evaluation, and learning (MEL) in development programs.

As an Agile Data approach, CATI provides a practical balance between speed, cost, and data quality. It enables programs to collect information remotely and at regular intervals, generating timely data that supports adaptive management and evidence-based decision-making. Unlike fully automated survey methods, CATI allows enumerators to build relationships with farmers, clarify questions, and support more nuanced conversations.

CATI is also particularly valuable in contexts where in-person data collection is costly, time-intensive, geographically challenging, or disrupted by external factors such as climate events, political instability, or public health restrictions. By enabling continuous feedback throughout implementation, CATI helps programs identify emerging challenges, monitor progress, and adjust interventions in near real time rather than relying solely on infrequent baseline and endline studies.

At the same time, CATI is not a one-size-fits-all solution. Its effectiveness depends heavily on factors such as phone ownership, network stability, gender dynamics, literacy, trust, and local communication norms. Understanding these contextual factors is essential for designing inclusive, representative, and reliable CATI-based monitoring systems.



What Agile Data Tested

The Agile Data Approaches and Innovations for Monitoring (ADAIM) project explored the viability of CATI as a tool for monitoring and evaluation in agricultural development programs. Through pilot implementations across diverse contexts, ADAIM evaluated the potential of CATI to collect timely, cost-effective data directly from farmers. In Zimbabwe, CATI was used to assess participation in a dual-purpose poultry program, while in Sudan it enabled the collection of near real-time farmer feedback on program implementation and resilience. In Malawi and Uganda, CATI supported the monitoring of subsidized fertilizer adoption, and in India it was used to assess the resilience of cotton farmers. These pilot studies generated valuable lessons on the effectiveness, limitations, and operational considerations of using CATI as a tool for agile data collection.

What we learned (strengths & limitations)

CATI offers several important advantages for Agile Data collection. First, it is a cost-effective approach. Within ADAIM pilots, CATI demonstrated approximately a 72% cost savings compared to in-person data collection by eliminating many of the travel and logistical expenses associated with field-based surveys. Second, it enabled faster data collection and analysis. Rather than deploying enumerators in the field, surveys were conducted remotely, with farmers successfully reached in an average of only 3 calls attempts, allowing the programs to generate timely evidence and support rapid feedback loops. Third, CATI has proved to be a viable data collection method as it achieved strong response rates (71%), substantially outperforming more automated digital tools such as Interactive Voice Response (IVR, 5%). Finally, CATI has demonstrated data validity when compared with data collected through in-person interviews as reported values were broadly consistent across the two methods.

From an inclusivity perspective, CATI lowers several common barriers associated with digital data collection. Respondents only need access to a basic mobile phone; smartphones, internet access, and literacy

are not required. This makes CATI more accessible for populations with low literacy levels or limited digital skills. However, the effectiveness of CATI depends heavily on maintaining accurate and up-to-date contact lists, as disconnected numbers, shared phones, or outdated records can reduce participation and data quality.

At the same time, CATI introduces important limitations and potential biases. Because interviews are conducted remotely by phone, there may be underrepresentation of populations without reliable phone access, poor network connectivity, or limited phone ownership. Certain groups may also be less likely to participate due to cultural preferences for in-person interactions, distrust of unknown callers, gender dynamics affecting phone access, or competing demands on time. In addition, phone-based interviews may limit the depth of responses or reduce the ability of enumerators to observe contextual information that would be visible during in-person visits. These factors should be considered carefully when designing CATI-based monitoring systems and interpreting results.

Best use Case

Good For	Less Suitable For
Short, simple surveys and rapid feedback collection	Long or complex surveys
Large-scale data collection	Areas with poor network coverage or unreliable phone access
Context with low literacy levels	Equity and inclusion analysis

Design considerations

When designing a CATI survey, implementers should consider both the technical environment and the respondent experience. Survey content, call timing, language, and network coverage all influence participation rates and data quality.

Keep Surveys Short

Respondent engagement tends to decline as call duration increases. CATI surveys are most effective when focused on a small number of priority indicators and can be completed in a few minutes. Where more information is required, consider splitting data collection into multiple shorter surveys rather than one lengthy questionnaire.

Plan for Extended Collection Periods

Unlike surveys administered in person, participation depends on respondents answering their phones and having reliable network access. Extending the data collection window can help compensate for missed calls, network disruptions, and other contextual factors that may affect response rates.

Maintain Contact Databases

Accurate and up-to-date contact information is critical for successful CATI implementation. Regularly verifying phone numbers and expanding contact databases can improve coverage and increase the likelihood of reaching the intended respondents.

Prepare Respondents

Pre-survey outreach can improve participation rates by informing respondents about the purpose of the survey and when to expect the call.

Use Familiar Languages

Survey content should be delivered in the language most commonly spoken by respondents. Local terminology, accents, and expressions should be considered during script development and testing to ensure questions are easily understood.

Use a Local Phone Number

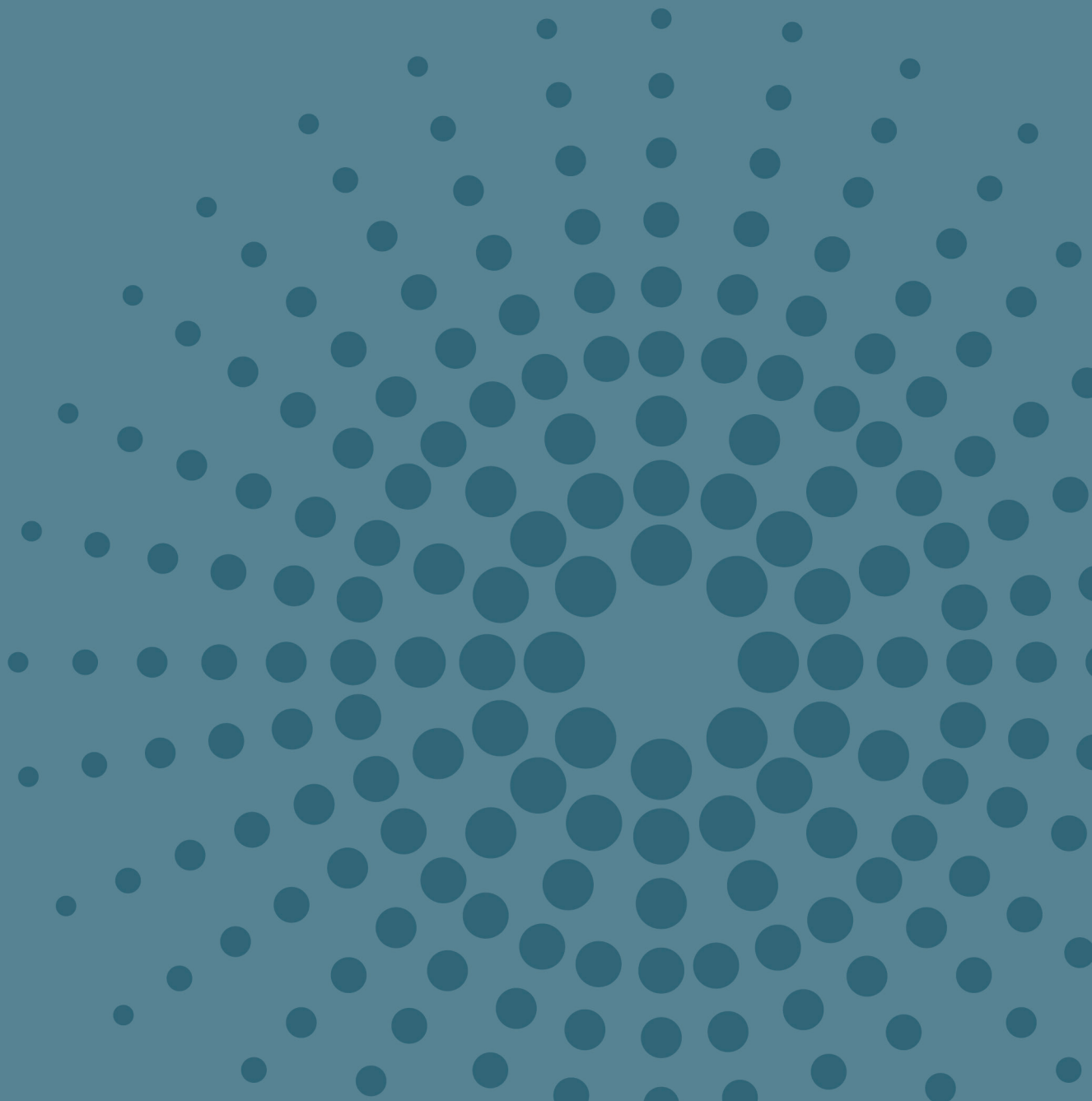
Respondents are more likely to answer calls from recognizable local phone numbers than from international or unknown numbers. Using a local number can increase trust and improve response rates.

Key takeaway

- * **CATI is more cost-effective than in-person data collection,** reducing operational costs while maintaining the ability to collect data at scale.
- * **CATI increases data collection efficiency,** enabling programs to identify emerging issues earlier and respond more quickly to changing circumstances.
- * **Simplicity is key.** Survey design should prioritize the respondent experience through short questionnaires, clear language, and straightforward response options to maximize participation and completion rates.
- * **Data quality depends on context.** The effectiveness of CATI is strongly influenced by factors such as mobile network coverage, local norms, conflict exposure, and trust in the implementing organization. Understanding these contextual factors is essential when assessing the suitability of CATI as a data collection modality.
- * **Trust is fundamental.** Respondents are more likely to participate when they recognize the implementing organization, understand the purpose of the survey, and perceive the process as credible and relevant.
- * **The validity of CATI-generated outcomes was confirmed.** Across the pilot studies, findings were broadly consistent with those obtained through conventional data collection approaches, indicating that CATI can generate reliable and actionable evidence when appropriately designed and implemented.

CATI

Lessons From The Field



The Agile Data Approaches and Innovations for Monitoring (ADAIM) project evaluated the use of Computer-Assisted Telephone Interviews (CATI) technology across multiple country contexts to assess its suitability as a data collection modality and to compare its performance with Computer-Assisted in Person Interviews (CAPI) or other technologies such as Interactive Voice Responses (IVR) or App based technologies. The findings indicate that CATI offers considerable cost efficiencies and scalability relative to more traditional interviewer-administered approaches, while maintaining the validity of outcome measures. However, important challenges related to inclusivity and representativeness remain, particularly among populations with limited access to mobile phones. These considerations highlight the need to carefully assess the trade-offs between cost, data quality, response rates, and respondent coverage when selecting remote data collection methods.

Response rates to CATI surveys were influenced by several respondent characteristics, although the specific determinants varied across contexts. In Sudan, the analysis revealed significant differences in participation according to gender, geographic location, and socioeconomic status. Specifically, male respondents were approximately six percentage points more likely to answer a CATI call than female respondents. Response rates were also higher among respondents residing in relatively safer areas and regions less affected by conflict. In particular, farmers in Butana exhibited a greater likelihood of participating than those in Kordofan and Sennar. Wealth was also positively associated with response rates, with wealthier respondents more likely to answer calls than poorer households. These findings suggest that gender, conflict exposure, and socioeconomic status may contribute to non-response bias in telephone-based surveys.

In India, non-response was primarily driven by operational constraints and respondent refusal. Among unsuccessful contact attempts, 45% were attributable to telephone numbers that were no longer in service, while 38% resulted from farmers declining to participate in the interview. Survey refusals were assessed to determine whether it varied according to respondent characteristics, including gender,

landholding size category, and state. The analysis found no significant differences in refusal rates by gender or farm size. However, state-level differences were observed, with farmers in Telangana significantly more likely to refuse participation than farmers in Karnataka. These results suggest that contextual factors may play a more important role than individual demographic characteristics in shaping participation in CATI surveys.

The evidence regarding the validity of measures collected through CATI is encouraging. In India, the accuracy of CATI-collected data was assessed by comparing farmers' responses on cotton area and production collected through telephone interviews (CATI) with data collected through in-person surveys (CAPI). As both datasets referred to the same farmers and the same production year (2023-2024), differences between the two measures can largely be attributed to the data collection approach.

The results indicate that respondents interviewed by telephone reported, on average, 16% more land allocated to cotton than respondents interviewed in person. Similarly, respondents reported yields that were, on average, 11% higher in the CATI interview than those reported through CAPI.

Despite these differences in magnitude, the overall patterns observed across the two survey approaches were broadly consistent, suggesting that CATI can generate valid estimates of key agricultural indicators.



