COSA Committee On Sustainability Assessment

Sustainability Intelligence

IVR Interactive Voice Response Guideline

Programme	Agile Data
July 2026	
Publication Code	SI-G-001
Version 1.0	

An interactive voice response (IVR) system is an automated telephone system that guides farmers through pre-recorded messages, menus, and voice prompts through the simple feature phones they have in their pockets. By navigating a series of 'listen and choose' steps, and using a touch tone keypad selection it allows even low literacy respondents to complete surveys on their own. This empowers development organizations to ask questions directly to their farmers and to receive actionable data from the field in near real-time.

IVR technology is suited for limited information-gathering such as feedback surveys, quick monitoring, and short pulse surveys.

The Agile Data Approaches and Innovations for Monitoring (ADAIM) project explored the viability of IVR as a tool for monitoring and evaluation in agricultural development programs. Through pilot implementations in multiple contexts, ADAIM assessed IVR's potential to collect timely, low-cost data directly from farmers. In Zimbabwe, IVR was used to measure participation in a dual-purpose poultry program, while in Sudan it was deployed to gather near real-time farmer feedback on program implementation. These pilots provided valuable insights into the strengths, limitations, and practical considerations of using IVR for Agile Data collection.

What we Learned

IVR is a cost-effective channel when compared to traditional in-person data collection, costing on average 82% less, and can easily scale due to ease of implementation especially in ongoing engagements.

Despite these advantages, IVR is not suitable for all contexts. It is generally less effective for long or complex surveys, as respondent engagement tends to decline as survey duration increases. IVR performance can also be constrained in areas with poor network coverage or frequent service interruptions, resulting in lower response rates and higher levels of survey attrition. In addition, it may not be appropriate in contexts where farmers frequently switch SIM cards, share phones, or keep devices turned off, as these factors can make it difficult to reach the intended respondents consistently. Finally, IVR may be unsuitable in fragile or conflict-affected settings where security concerns, displacement, or disruptions to telecommunications infrastructure limit reliable participation.

Best Use Cases

Good For	Less Suitable For
Short, simple, pulse surveys	Long or complex surveys
Rapid feedback collection and routine monitoring	Studies requiring in-depth information or sensitive information requiring enumerator support
Large-scale data collection	Areas with poor network coverage or unreliable phone access
Ongoing programs with known respondents and repeated data collection needs	Very low educated population

Design Considerations

When designing an IVR 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 it Simple

IVR surveys should use clear, conversational language that is easy to understand when heard rather than read. Avoid technical jargon, abbreviations, and complex wording. Questions should be concise and response options limited to a manageable number (typically 3–5 choices) to reduce respondent burden and confusion.

Keep Surveys Short

Respondent engagement tends to decline as call duration increases. IVR surveys are most effective when focused on a small number of priority indicators that 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 in-person administered surveys, IVR 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 IVR 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. Short awareness campaigns or pulse surveys can also be used to verify active phone numbers and familiarize respondents with the IVR system.

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.

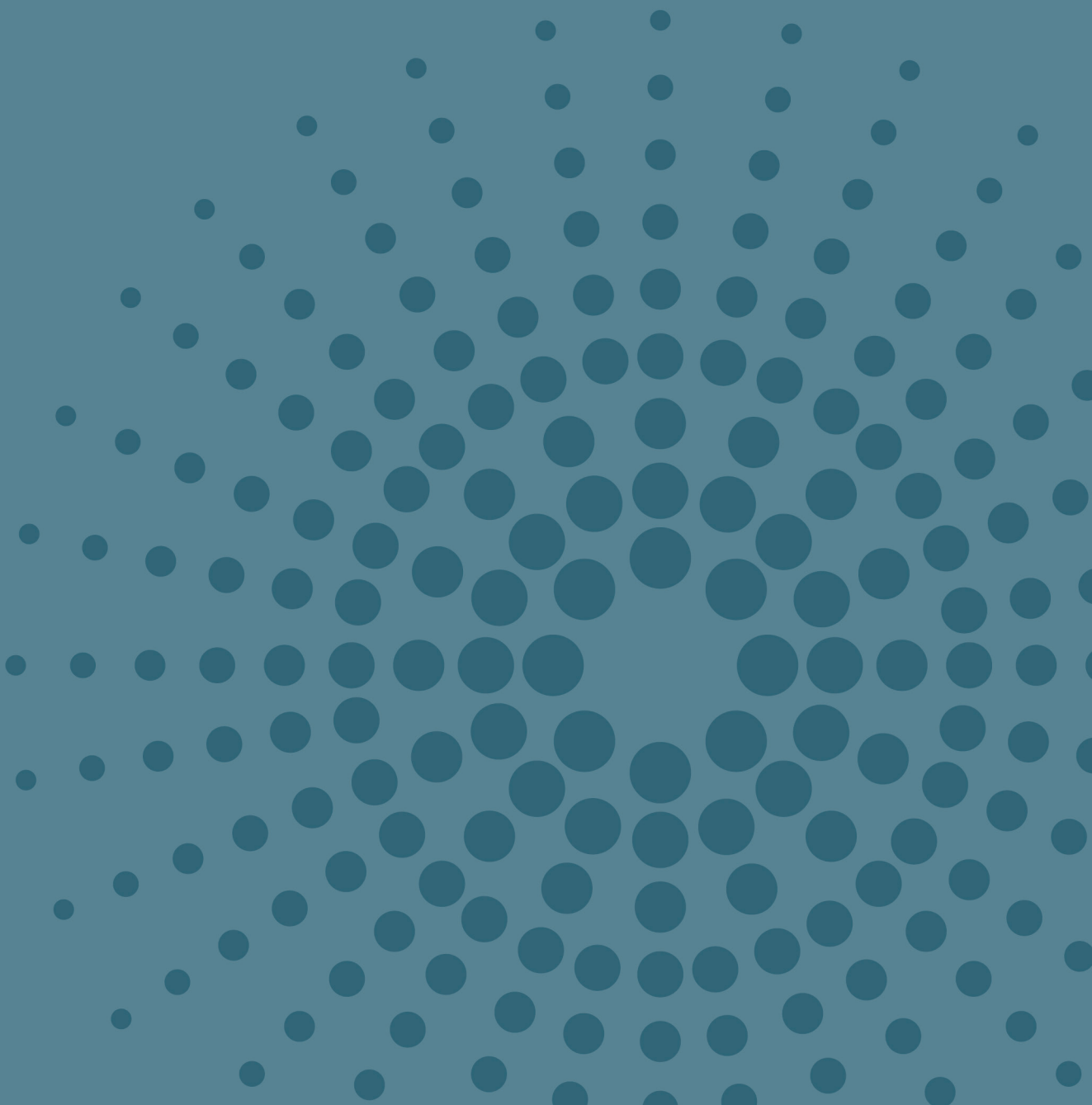
Key takeaway

In our pilots IVR demonstrated that automated voice surveys can be a valuable addition to an Agile MEL approach when used in the right context. While IVR is not a replacement for traditional data collection methods, it can significantly improve the speed, cost-efficiency, and scale of data collection when designed appropriately.

- IVR is more cost-effective than CAPI or CATI data collection, but it is less effective
- IVR increases data collection efficiency allowing programs to identify emerging issues early and respond more quickly
- IVR can easily scale once the right design systems are established
- Participation must be designed for and not assumed for IVR.
- Human support remains important for building trust and encouraging participation. Programs that combine automation with human support achieve stronger results.
- Simplicity is key. Design for respondent experience is essential; short surveys, clear language, and straightforward response options.
- Data quality depends on context. The effectiveness of IVR is heavily influenced by factors such as network coverage, digital literacy, education, local norms and others. Understanding these contextual factors is critical when determining whether IVR is an appropriate data collection channel.
- IVR can be used to shift monitoring from periodic measurement to continuous learning

IVR vs CATI

Lessons From The Field



The Agile Data Approaches and Innovations for Monitoring (ADAIM) project tested Interactive Voice Response (IVR) technology in Zimbabwe and Sudan to assess its effectiveness as a data collection tool in comparison with Computer-Assisted Telephone Interviewing (CATI). While IVR offers substantial cost advantages, the results from both pilots indicate significantly lower response rates relative to CATI.

Across the two contexts, IVR consistently underperformed despite variation in survey length. In particular survey duration, often considered a key constraint in remote data collection, does not appear to fully explain the low response rates observed. Even relatively short IVR surveys (22 questions) yielded poor completion rates, suggesting that additional factors play a critical role in shaping respondents' engagement with this technology.

Our analysis identifies several individual-level characteristics associated with response behavior. In particular age, years of schooling, and household wealth are significantly correlated with the likelihood of survey completion. Furthermore, respondents' level of prior involvement in the implementation program emerges as a key determinant of participation, pointing to the importance of familiarity and trust in technology-mediated survey modes.

	IVR	CATI
Sudan (22-question survey)	**7% completed**	**66% completed**
Zimbabwe (70-question survey)	**0% completed** 0 questions 22% 1-15 questions 56% 16-30 questions 7% 31-50 questions 7% 51+ questions 8%	**95% completed**

The pattern of number of questions answered in Zimbabwe indicates that attrition occurs predominantly at the early stages of the IVR survey, with none of the respondents reaching completion. This distribution suggests that respondent fatigue, limited engagement, or difficulties in interacting with the IVR system may significantly hinder survey completion, particularly for longer questionnaires.

These stark differences highlight the limitations of IVR as a standalone data collection method in these contexts. While IVR may reduce operational costs, its effectiveness is severely constrained by low respondent engagement, particularly among populations with lower levels of education, wealth, or prior exposure to the program intervention.

Overall, the findings suggest that, although IVR can be a cost-efficient tool, its deployment in similar settings should be carefully evaluated against the risk of substantial non-response bias. Hybrid approaches or complementary engagement strategies may be necessary to improve participation and ensure data quality.

Published by

COSA

Committee on Sustainability Assessment (COSA)

Editorial and production support
Afronaut Press

Authors and Contributors
Authors: Emilie Akkermans, COSA
Elena Serfilippi, COSA
Editor: Louise Salinas, COSA

Programme
Agile Data Approaches and Innovations for Monitoring (ADAIM)

Funding Acknowledgement

Gates Foundation

This publication was developed under the ADAIM programme, funded by the Gates Foundation.

Copyright
© Committee on Sustainability Assessment (COSA), 2026. All rights reserved.