



OFFICE OF INSPECTOR GENERAL
U.S. Agency for International Development

USAID Was Not On Track To Achieve Performance and Cost Savings Goals for the Development Information Solution System

AUDIT REPORT A-000-21-001-U
MAY 6, 2021

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MEMORANDUM

DATE: May 6, 2021

TO: USAID, Chief Information Officer, Jay Mahanand

FROM: Deputy Assistant Inspector General for Audit, Alvin A. Brown /s/

SUBJECT: USAID Was Not On Track To Achieve Performance and Cost Savings Goals for the Development Information Solution System (A-000-21-001-U)

Enclosed is the final audit report on USAID's deployment of the Development Information Solution (DIS) system. The Office of Inspector General (OIG) contracted with the independent certified public accounting firm of CliftonLarsonAllen LLP (CLA) to conduct the audit. The contract required the audit firm to perform the audit in accordance with generally accepted government auditing standards.

In carrying out its oversight responsibilities, OIG reviewed CLA's report and related audit documentation and inquired of its representatives. CLA is responsible for the enclosed auditor's report and the conclusions expressed in it. We found no instances in which CLA did not comply, in all material respects, with applicable standards.

The objective of the audit was to determine to what extent USAID was on track to achieve selected performance goals of the DIS. The selected performance goals were (1) adoption of a single program portfolio management platform for Washington and missions overseas, resulting in the retirement of redundant systems and (2) creation of a Portfolio Viewer that would enable advanced reporting to improve evidence-based decision making.

To answer the audit objective, CLA reviewed system development documentation and reports generated from DIS. CLA also interviewed the DIS development team, end users, and program managers. The audit included inquiries and analysis into the adequacy of the end user experience, user adoption, and DIS training feedback. Audit fieldwork covered USAID's headquarters in Washington, DC. In addition, the following overseas missions had DIS deployed as of May 2020 and were included in CLA's samples: El Salvador, Ethiopia, Nepal, Peru, Rwanda, South Africa, and Vietnam. Fieldwork was conducted and covered the period from October 17, 2019 to January 11, 2021.

The audit firm concluded that although USAID was making progress in the development and implementation of DIS, the Agency's deployment of DIS was behind schedule and not on track to timely achieve the selected performance goals. The initial business case for DIS had planned for development and implementation to be completed in fiscal year (FY) 2019; however, the revised schedule indicates global deployment will not be complete until FY 2022. CLA found major challenges remain to (1) ensure adoption of a single program portfolio management platform for USAID Washington and overseas missions, resulting in the retirement of redundant systems and (2) create a Portfolio Viewer that would enable advanced reporting to improve evidence-based decision making. Consequently, CLA identified three weaknesses that could prevent DIS's performance goals from being fully achieved. The weaknesses relate to USAID's need to address the following:

- Strengthen cost savings realization of redundant systems.
- Strengthen mission adoption and system integration prior to deployment.
- Reduce use of redundant systems and external information technology resources.

Although CLA noted positive aspects of the Agency's implementation of DIS, such as a robust development program and continuous monitoring, without addressing the above weaknesses, USAID may incur unexpected costs when decommissioning the remaining systems or additional operations and maintenance costs the longer they remain in use.

To address the weaknesses identified in CLA's report, we recommend that USAID's Chief Information Officer:

Recommendation 1. Revise the Development Information Solution system's cost savings plan in accordance with Office of Management and Budget's Capital Planning Guidance to determine the effects that the delayed decommissioning of redundant systems may have on the related costs to maintain the systems longer.

Recommendation 2. Document and implement lessons learned for system users that incorporates the successes achieved by the past deployments in adopting the Development Information Solution system.

Recommendation 3. Develop and implement a process to validate the data between Foreign Assistance Coordination and Tracking System Info and the Development Information Solution system to maximize its value per GAO's Agile Assessment Guide.

Recommendation 4. Develop a plan in coordination with mission executive officers, program offices and bureaus to validate participation and adoption of the Development Information Solution system to reduce reliance on external systems or components for tracking, monitoring, or reporting performance data as called for by the DIS Business Case.

In finalizing the report, the audit firm evaluated USAID's responses to the recommendations. After reviewing that evaluation, we consider recommendations 1, 3 and 4 resolved but open pending completion of planned activities and recommendation 2 resolved but open pending OIG's verification of the agency's final actions. For recommendations 1, 3, and 4, please provide evidence of final action to the Audit Performance and Compliance Division.

We appreciate the assistance provided to our staff and the audit firm's employees during the engagement.



United States Agency for International Development

Development Information Solution (DIS) Audit

Final Report



CliftonLarsonAllen LLP
CLAconnect.com

May 3, 2021

Mr. Mark Norman
Director, Information Technology Audits Division
United States Agency for International Development
Office of the Inspector General
1300 Pennsylvania Avenue, NW
Washington, DC 20005-2221

Dear Mr. Norman:

CliftonLarsonAllen LLP (CLA) is pleased to present our report on the results of our audit of the United States Agency for International Development's (USAID) implementation of the Development Information Solution (DIS).

We appreciate the assistance we received from the staff of USAID and appreciate the opportunity to serve you. We will be pleased to discuss any questions or concerns you may have regarding the contents of this report.

Very truly yours,

Sarah Mirzakhani, CISA
Principal



CliftonLarsonAllen LLP
CLAconnect.com

Inspector General
United States Agency for International Development

CliftonLarsonAllen LLP (CLA) conducted a performance audit of the United States Agency for International Development's (USAID) implementation of the Development Information Solution (DIS) system. The objective of the audit was to determine to what extent USAID was on track to achieve selected performance goals of the DIS. The selected performance goals were: (1) adoption of a single program portfolio management platform for Washington and overseas missions, resulting in the retirement of redundant systems, and (2) creation of a Portfolio Viewer that would enable advanced reporting to improve evidence-based decision making.

Audit fieldwork covered USAID's headquarters located in Washington, DC. In addition, the following overseas missions were included in our samples: Ethiopia, Vietnam, El Salvador, Nepal, South Africa, Peru, and Rwanda. Fieldwork was conducted from October 17, 2019 to January 11, 2021, and covered the period from October 17, 2019, through January 11, 2021.

We conducted this performance audit in accordance with Generally Accepted Government Auditing Standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

We concluded that although USAID was making progress in the development and implementation of DIS, the Agency's deployment of DIS was behind schedule, and therefore, not on track to timely achieve the selected performance goals. Major challenges remain to: 1) ensure adoption of a single program portfolio management platform for USAID Washington and overseas missions, resulting in the retirement of redundant systems, and 2) create a Portfolio Viewer that would enable advanced reporting to improve evidence-based decision making. Consequently, we noted weaknesses related to cost savings realization of redundant systems, strengthening mission adoption and system integration prior to deployment, and use of redundant and external IT resources. Without addressing these weaknesses, USAID may incur unexpected costs when decommissioning the remaining systems or additional operations and maintenance costs the longer they remain in use. Therefore, we have made four recommendations to assist USAID in strengthening its implementation of selected performance goals of the DIS.

Our work did not include an assessment of the sufficiency of internal control over financial reporting or other matters not specifically outlined in the enclosed report. CLA cautions that projecting the results of our performance audit to future periods is subject to the risks that conditions may materially change from their status. The information included in this report was obtained from USAID on or before May 3, 2021. We have no obligation to update our report or to revise the information contained therein to reflect events occurring subsequent to May 3, 2021.

The purpose of this audit report is to report on what extent USAID was on track to achieve selected performance goals of the Development Information Solution and is not suitable for any other purpose.

Additional information on our findings and recommendations are included in the accompanying report. We are submitting this report to USAID Office of Inspector General.

CliftonLarsonAllen LLP

A handwritten signature in black ink that reads "CliftonLarsonAllen LLP". The script is fluid and cursive, with the letters connected in a continuous line.

Arlington, Virginia
May 3, 2021

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SUMMARY OF RESULTS

Background

The United States Agency for International Development's (USAID) Office of Inspector General (OIG) engaged CliftonLarsonAllen LLP (CLA) to conduct a performance audit of the Development Information Solution (DIS) system. The objective of the audit was to determine to what extent USAID was on track to achieve selected performance goals of the DIS. The selected performance goals were:

1. Adoption of a single program portfolio management platform for Washington and missions overseas, resulting in the retirement of redundant systems.
2. Creation of a Portfolio Viewer that would enable advanced reporting to improve evidence-based decision making.

USAID is developing the DIS to streamline and support portfolio management, including strategic planning, design, budgeting, procurement, implementation, monitoring, evaluation, and reporting of USAID's portfolio of development activities. Once fully deployed, the goal of the DIS is to provide a common portfolio management platform for use by USAID Washington and USAID mission operating units to capture program data. DIS will also collect operations data from existing financial and procurement systems and provide its data to an Agency Portfolio Viewer, enabling a cohesive story view of the entirety of USAID's portfolio. Currently, each operating unit deploys its own portfolio management solution for monitoring development program contracts and agreements, resulting in redundant systems and significant costs to the agency. The true value DIS may bring to USAID is the monitoring and evaluation of all development program contracts and agreements (approximately \$12 billion in 2019).

The development of the application was performed using an Agile-like project management and design methodology.¹ The modules of the system were scoped based on business areas including: Performance Monitoring and Evaluation, Budget Planning and Monitoring, Project Design and Acquisition and Assistance Planning, Portfolio Viewer and Reporting, and Development Data Library (DDL). Additional modules including budgeting were in development as deployment continues. DIS was initially deployed to seven pilot missions followed by 13 missions within the Asia Bureau which were completed in November 2020. See Appendix I for additional background information on the project.

To answer the audit objective, CLA reviewed system development documentation and reports generated from DIS. CLA also interviewed the DIS development team, end users and program managers. The audit included inquiries and analysis into the adequacy of the end user experience, user adoption and DIS training feedback. In addition, for a sample of the pilot missions, CLA sampled mission reports to evaluate the use and adoption of DIS. Further, CLA reviewed DIS's Agile development and release process which included gaining an understanding of how user stories were collected and migrated

¹ Agile methodology leverages developer and customer collaboration to make the development progress transparent, provide improved decision making, and deliver more timely and accurate information. In addition, Agile methodology is done in pieces (sprints), with each sprint building and improving off the lessons from the previous sprint.

to bi-weekly sprints for development, testing, and release. CLA tested a sample of the changes which included analysis of the monthly release cycle, applicable change management testing, and how USAID monitors changes in the DIS development process. CLA also reviewed and analyzed USAID's expected cost savings, cost avoidance, and measures of performance that impacted the estimated costs.

The audit was performed in accordance with Generally Accepted Government Auditing Standards (GAGAS). Those standards require that the auditor plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for the findings and conclusions based on the audit objective. CLA believes that the evidence obtained provides a reasonable basis for CLA's findings and conclusions based on the audit objective.

Audit Results

Although USAID was making progress, the Agency's deployment of DIS was behind schedule, and therefore, not on track to timely achieve the selected performance goals. Major challenges remain to: 1) ensure adoption of a single program portfolio management platform for USAID Washington and overseas missions, resulting in the retirement of redundant systems, and 2) create a Portfolio Viewer that would enable advanced reporting to improve evidence-based decision making.

The initial business case for DIS had planned for development and implementation to be completed in fiscal year (FY) 2019; however, the revised schedule indicates global deployment will not be complete until FY 2022. As of October 2020, DIS rollout had only been completed at the pilot missions and the Asia Bureau deployments. USAID Bureau of Management, Office of the Chief Information Officer (M/CIO) officials indicated that the primary delay in the pilot deployment was the lack of organized and complete indicator data.²

In addition, USAID was behind schedule in retiring a majority of DIS's redundant systems as they could not be decommissioned until DIS replaced their functionality or their system data is archived as required. Further, DIS has shown that it will be capable to function as a Portfolio Viewer for missions that will enable advanced reporting to improve evidence-based decision making; however, Bureau level reporting had not been fully implemented. M/CIO indicated that Bureau level reporting would be part of the system's future functionality.

The challenges identified and a constantly changing system are inherent to the Agile development methodology. While challenges remain for the full deployment and use of DIS, from our audit, CLA noted the positive impacts that DIS's implementation has made to date. For example, USAID:

- Developed a robust development program that was founded by an authorized business case.
- Established an authorized project charter that included continuous monitoring and project management.
- Adapted the Agile system development methodology to scope and develop the custom DIS system.

² Indicators are metrics used to track the results of development activities.

Although there have been positive impacts, CLA identified three weaknesses that could prevent DIS's performance goals from being fully achieved. The weaknesses relate to USAID's need to address the following:

- Strengthen Cost Savings Realization of Redundant Systems.
- Strengthen Mission Adoption and System Integration Prior to Deployment.
- Reduce Use of Redundant Systems and External Information Technology (IT) Resources.

Without addressing these weaknesses, USAID may incur unexpected costs when decommissioning the remaining systems or additional operations and maintenance costs the longer they remain in use. Thus, the projected cost savings and cost avoidance by the adoption of a single program portfolio management platform, for USAID Washington and overseas missions, and the retirement of redundant systems may not be achieved in a timely manner. Therefore, we are making four recommendations to help USAID in achieving its goals for the DIS project.

In response to the draft audit report, USAID agreed with the four recommendations and outlined its plans to address recommendations 1, 3, and 4. For recommendation 2, USAID stated that they completed final action and requested closure upon issuance of the final report. Based on our evaluation of the Agency's comments, we do not agree with closure for recommendation 2 because there has not been sufficient time to determine if the corrective actions have been fully implemented. Therefore, we consider recommendation 2 open-resolved pending OIG's verification of the Agency's final actions. Further, we acknowledge management's decisions on recommendations 1, 2, 3, and 4. USAID's comments are included in their entirety in Appendix III.

The following section provides a detailed discussion of the audit findings. Appendix I provides background information on the DIS project, Appendix II describes the audit scope and methodology, and Appendix III includes USAID management comments.

AUDIT FINDINGS

1. USAID Needs to Strengthen Cost Savings Realization of Redundant Systems

Government Accountability Office's (GAOs) *Agile Assessment Guide*, September 2020 (GAO-20-590G), states that cost estimates for the development of an Agile application should be well-documented, comprehensive, accurate, and credible.

USAID's *Decommissioning Process Description Document*, describes the decommissioning planning process as follows:

"Decommissioning planning documents all activities related to the secure transition and/or migration, and physical shutdown of the Business Service and underlying infrastructure. This activity will ensure that there are no unintended interruptions to business processes and that all necessary requirements are met in connection with federal mandates (e.g., [Federal Information Technology Acquisition Reform Act (FITARA)], [Federal Information Security Modernization Act (FISMA)]), regulations and ADS policies. In addition, planning for decommissioning also involves estimating the potential [Information Technology (IT)] cost avoidance, cost savings, and/or any incremental costs incurred, from decommissioning the Business Service."

The Office of Management and Budget's *FY 2021 IT Budget – Capital Planning Guidance* states the following regarding return on investment:

"Briefly describe the Investment's quantitative and qualitative return on Investment (ROI), including primary and secondary costs and benefits (internal and external to the government) and outcomes achieved or planned. The quantitative analysis should compare the investment's planned life cycle cost with any projected or realized cost savings, cost avoidance, and relevant justifications."

The guidance also requires performance metrics for investments to be updated:

"Updates to the IT Dashboard should be maintained to reflect the most current information available for performance metrics, risks, projects, and/or activities [...]. Frequency of reporting is based on the contents of a given Investment. For example, an Investment with the required monthly performance metric for [Operations and Maintenance] spending should have monthly performance actuals to report while investments with only Development, Modernization, and Enhancement (DME) spending may be less regular in the updates they have available to submit."

USAID M/CIO was not on track to complete the development and deployment of Development Information Solutions (DIS) and retire redundant systems as planned in the FY 2015 DIS IT Capital Planning and Investment Control Exhibit 300A. Our review of decommissioned systems as of November 2020 found that USAID had decommissioned only one system, AidTracker+, prior to the deployment of DIS, and one system, GeoMIS, during deployment. In addition, USAID had not begun the process of decommissioning the remaining redundant systems. From a sample of five additional systems out of 33

planned for decommissioning, two were scheduled to be decommissioned in fourth quarter FY 2020 and three were scheduled in second quarter FY 2021. While one of the five systems was on schedule for second quarter 2021 decommissioning, the other four systems required modification to their expected decommissioning timelines due to the delays in the global rollout. Specifically, three of the systems decommissioning were adjusted approximately two quarters, and one system did not have a scheduled date for decommissioning.

USAID's DIS business case dated May 9, 2014, indicated that DIS was expected to have \$126.4 million in cost savings or avoidance. However, in January of 2018, USAID's return on investment revalidation reduced that expected cost savings and avoidance by approximately \$36 million to \$90.4 million. The reduction in cost was mainly attributed to the lower cost of full-time government employee time on overseeing the redundant systems. Included in the estimates, M/CIO identified cost avoidance benefits by not renewing the licensing for AidTracker+ which required Salesforce (licensing costs were expected to increase by 7% a year) as well as additional labor costs. In addition, M/CIO indicated that there may be additional cost avoidance from ending development of other redundant systems and not implementing additional requested systems.

M/CIO indicated that DIS is designed to enforce all operating units to conform with federal and Agency policies and standards, not to custom build and satisfy unique or non-compliant requirements for the missions. However, the decommissioning of redundant systems is planned after either business functions are incorporated into DIS or required system data is archived following data retention requirements. The process for decommissioning redundant systems is outlined in USAID's *Decommissioning Process Description Document* and includes the development of a decommissioning plan with stakeholders of a business service, executing the plan, and validating and decommissioning the business service.

DIS pilot mission rollouts were initially delayed due to several factors, including a lack of standardized templates to upload data to the system and a lack of authoritative direction to adopt the system. Although these issues were subsequently resolved, global rollout had slowed down due to the impact of the COVID-19 pandemic. With the COVID-19 outbreak, missions were focused on adjusting their operations for the emerging tasks needed for the global pandemic, including teleworking, program officers on ordered or authorized departure, and reprogramming of funds. While USAID M/CIO expects the rollout to remaining missions to speed up after successes with the Asia Bureau deployment, the impact of cost savings or avoidance were not adjusted to reflect the delayed retiring of redundant systems.

Without potential decommissioning cost savings realized, USAID may incur unexpected costs when decommissioning the remaining systems or additional operations and maintenance costs the longer they remain in use. Thus, the projected cost savings and cost avoidance by the adoption of a single program portfolio management platform, DIS, for Washington and overseas missions, and the retirement of redundant systems may not be achieved in a timely manner. As a result, we are making the following recommendation.

Recommendation 1: We recommend USAID's Chief Information Officer establish a revised Development Information Solution cost savings plan in accordance with Office of Management and Budget's Capital Planning Guidance to determine the effects of delayed decommissioning of redundant systems may have on the related costs to maintain the systems longer.

2. USAID Needs to Strengthen Mission Adoption and System Integration Prior to Deployment

COBIT³ 2019 identifies the following as a critical success factor for enterprise governance of information technology: publish positive outcomes and lessons learned to help establish and maintain credibility.

The Project Management Institute's *Project Management Book of Knowledge* states that during the project life cycle, the project team and key stakeholders identify lessons learned concerning the technical, managerial, and process aspects of the project. It also explains that lessons learned identify project successes and project failures, and include recommendations to improve future performance on projects. It adds that lessons learned are compiled, formalized, and stored throughout the project's duration and provide future project teams with information that can increase the effectiveness and efficiency of project management.

NIST SP 800-160, *System Security Engineering*, November 2016, states the following regarding the integration process:

"The purpose of the Integration process is to synthesize a set of system elements into a realized system (product or service) that satisfies system requirements, architecture, and design."

GAO's *Agile Assessment Guide*, September 2020 (GAO-20-590G), states the following regarding Agile adoption:

Work is prioritized to maximize value for the customer:

- Agile teams use user stories to define work.
- Agile teams estimate the relative complexity of user stories.
- Requirements are prioritized in a backlog based on value.

Strengthen Mission Adoption

At the time of our testing, seven pilot missions had completed DIS deployment as of June 2020. For a sample selection of five missions from the seven missions, only one mission had used the system to assist with FY 2019 Performance Plan and Report (PPR) reporting.⁴

While DIS appears to be the tool of the future for USAID to see its Development Program in a Portfolio Viewer by the Agency as a whole and by individual Bureaus, the pilot missions' adoption was slow and behind schedule. This was due to several factors, such as a lack of organized and complete performance indicators and results data for loading into DIS and the various COVID-19 pandemic restrictions and barriers, including funding and local socio-economic issues that occurred. In addition, there was an initial lack of authoritative direction regarding the adoption of DIS by missions and implementing partners (IPs). Further, from discussions held with mission program officers, CLA identified concerns with a lack of IP contract language where IPs were reluctant to participate in DIS's use.

³ Control Objectives for Information and Related Technology (COBIT) is a framework created by the Information Systems Audit and Control Association (ISACA) for IT governance and management.

⁴ Performance Plans and Reports (PPR) aggregate mission development activities and indicators for reporting into US Department of State's Foreign Assistance Coordination and Tracking System (FACTS Info).

However, CLA found that USAID had largely addressed the above factors that caused implementation delays. For example, during the pilot phase, multiple pilot missions indicated that they helped other missions deploy the system and perform initial data loading. In addition, with the push in the Asia Bureau and strong management support, the adoption rate has increased. Specifically, with the Asia Bureau, 13 missions deployed the system within 3 – 4 months compared to 4 – 8 months for the seven initial pilot missions. USAID also issued authoritative guidance. Specifically, on October 7, 2020, USAID issued the 'Global DIS' Agency Notice from the Office of the Administrator, which announced DIS's worldwide deployment. In addition, on October 28, 2020, USAID updated the Automated Directive System Chapter 201, *Operational Policy for the Program Cycle*, to include the following: "Beginning in FY 2021, USAID [Operating Units (OUs)]⁵ must use the Agency-wide portfolio-management system, the DIS." This further solidified DIS's requirement for agency-wide adoption.

In regard to a lack of contract language, as part of the DIS rollout process, mission personnel requested what contractual language they should add to their awards with IPs to enter results in DIS. Although the data elements for the results submission are the same as the IPs are currently submitting, USAID could not mandate the IPs use DIS without undertaking the Federal rulemaking process and related Paperwork Reduction Act (PRA) requirements. M/CIO indicated that the process for PRA clearance had begun. To further support program offices with IPs not using DIS directly, M/CIO developed spreadsheets for IPs to provide to Agreement Officer's Representatives (AOR) and Contracting Officer's Representatives (COR) not directly accessing DIS to enter data offline that AORs/CORs can upload the data on behalf of the IPs.

In addition, USAID issued *DIS Deployment: Implementing Partner Engagement Frequently Asked Questions (FAQs) for Missions* on voluntary usage of DIS. Voluntary usage includes a variety of information on how missions may engage with IPs regarding preferred (but optional) file formats and templates (e.g., spreadsheets) when providing data to missions, in accordance with their current contracts. However, the Agency noted that this FAQ guidance does not have the force or effect of law.

Although the Agency has taken actions to address mission implementation delays and expects the adoption rate for DIS to increase, lessons learned during the rollout were not fully documented and implemented. It was not clear why this occurred, yet without documenting and implementing lessons learned to share the successes achieved by past deployments of DIS, the agency has little assurance that the adoption rate will continue to increase, as expected.

Improve System Integration

Prior to the 2.0 release in October 2020, DIS did not have functionality with Foreign Assistance Coordination and Tracking System (FACTS) Info,⁶ which created the potential for redundant data entry work for mission monitoring and evaluation personnel. However, with the 2.0 release, DIS was able to automate data entry into FACTS Info to allow facilitation from DIS to FACTS Info, without redundant manual entry. To illustrate, if an

⁵ Operating Units (OUs) implement foreign assistance programs with funding from relevant foreign assistance accounts.

⁶ FACTS Info is the United States Department of State data collection system used to integrate foreign assistance planning, budgeting, and performance management from State, USAID and President's Emergency Plan for AIDS Relief into one location.

initial submission of data was rejected by FACTS Info, users could correct the issue in DIS and re-upload the results. However, once the results are accepted in FACTS Info, any changes made in FACTS Info after the automated data entry must also be made manually in DIS to ensure data remains accurate. Since updates can be made in either system without syncing; there is the possibility for inconsistent data to exist. M/CIO indicated that full two-way system integration between DIS and FACTS Info is planned for the FY 2021 PPR reporting.

Without the two-way synchronization between DIS and FACTS Info, data in one system may be updated without the other reflecting the update which may lead to inaccurate information in one or both systems. In addition, without a mechanism in place to validate DIS adoption enforcement with the inclusion of all required indicators, future deployments may risk adoption delays. Therefore, we are making the following recommendations:

Recommendation 2: We recommend USAID's Chief Information Officer document and implement lessons learned for system users that incorporates the successes achieved by the past deployments in adopting Development Information Solutions.

Recommendation 3: We recommend USAID's Chief Information Officer develop and implement a process to validate the data between Foreign Assistance Coordination and Tracking System Info and Development Information Solutions to maximize system value per GAO's Agile Assessment Guide.

3. USAID Needs to Reduce Use of Redundant Systems and External IT Resources

Control Objectives for Information Technologies (COBIT) 2019 Framework: Governance and Management Objectives, states the following regarding data conversion and integrity:

Build, Acquire and Implement (BAI) 07.02 Plan business process, system and data conversion.

Prepare for business process, I&T service data and infrastructure migration as part of the enterprise's development methods. Include audit trails and a recovery plan should the migration fail.

...

6. Coordinate and verify the timing and completeness of the conversion cutover so there is a smooth, continuous transition with no loss of transaction data. Where necessary, in the absence of any other alternative, freeze live operations.
7. Plan to back up all systems and data taken at the point prior to conversion. Maintain audit trails to enable the conversion to be retraced. Ensure that there is a recovery plan that covers rollback of migration and fallback to previous processing should the migration fail.
8. In the data conversion plan, incorporate methods for collecting, converting and verifying data to be converted, and identifying and resolving any errors found during conversion. Include comparing the original and converted data for completeness and integrity.

The *DIS Business Case: Capital Asset Summary*, states the following as of March 30, 2020:

“The DIS will enable USAID to have a comprehensive point in time picture of program, financial, and procurement data in a way not currently possible. USAID currently has an estimated 34 off-the-cuff, program portfolio management systems, none of which are Agency-wide, and all of which were developed by operating units to respond to their specific needs. The DIS proposes to improve standards for systems with centralized oversight that will also meet new transparency and open data requirements. The DIS will also incorporate functionality currently captured in [redundant] systems that will result in eventual phasing out of such systems. The continued proliferation of [redundant] systems poses significant risks and will cost the Agency an estimated \$218.9M over the next five years. These legacy systems do not provide a corporate view of USAID's portfolio, and none have been aligned with USAID's Program Cycle.”

Two out of five sampled pilot missions from a population of seven indicated that they continued to use additional IT resources such as supplemental spreadsheets to compensate for functionality and data entry purposes not fully addressed in DIS. The following examples were identified:

- USAID El Salvador mission indicated that a spreadsheet is used to track indicators previously stored in AidTracker+.
- USAID Ethiopia mission indicated a Google sheet is used to track custom tags that were not easily tracked in DIS.

M/CIO indicated that some missions may have a spreadsheet or other method to collect indicator results, but not all missions have an existing repository / application or business process to systematically collect results in a more standardized format on a regular basis. In addition, since the DIS development team is utilizing the Agile methodology, system functionalities are developed and deployed according to management prioritization.

If missions continue to use external means for tracking performance indicators, there is a risk that DIS will not be fully adopted throughout the agency. In addition, data duplication and data integrity issues will continue due to the lack of a centralized system for data entry and reporting. As a result, we are making the following recommendation.

Recommendation 4: *We recommend USAID's Chief Information Officer in coordination with mission executive officers, program offices and Bureaus develop a plan to validate participation and adoption of the Development Information Solution (DIS) system to reduce reliance on external systems or components for tracking, monitoring, or reporting performance data as called for by the DIS Business Case.*

EVALUATION OF MANAGEMENT COMMENTS

In response to the draft report, USAID agreed with the four recommendations and outlined its plans to address recommendations 1, 3, and 4. For recommendation 2, USAID stated that they completed final action and requested closure upon issuance of the final report. Based on our evaluation of the Agency's comments, we do not agree with closure for recommendation 2 because there has not been sufficient time to determine if the corrective actions have been fully implemented. Therefore, we consider recommendation 2 open-resolved pending OIG's verification of the Agency's final actions. Further, we acknowledge USAID's management decisions on recommendations 1, 2, 3, and 4. USAID's comments are included in their entirety in Appendix III.

In regards to recommendation 2, USAID management agreed with the recommendation to document and implement lessons learned for system users that incorporates the successes achieved by past deployments in adopting the DIS system. USAID management also indicated that it continues to be committed to continuous learning based on user feedback which is supported by their DIS Stakeholder Feedback Loop. The DIS Stakeholder Feedback Loop is a method of continuous improvement from stakeholders through the project lifecycle; however, documented results from the strategy were not clearly identified as they tied to deployment achievements and lessons learned. In addition, the documentation provided to support the agency's use of After-Action Review process for the Asia Regional Deployment and Performance Plan and Report interface with FACTS Info were implemented after the audit period concluded. Therefore, there has not been sufficient time to determine if management has fully implemented the After-Action Review process. We consider recommendation 2 open-resolved pending OIG's verification of the Agency's final actions.

BACKGROUND

USAID is developing the DIS to streamline and support portfolio management, including strategic planning, design, budgeting, procurement, implementation, monitoring, evaluation, and reporting of USAID's portfolio of development activities. DIS will provide a common portfolio management platform for use by USAID Washington and mission operating units to capture program performance data.

DIS will also collect operations data from existing financial and procurement systems and will provide its data to an Agency Portfolio Viewer, enabling a cohesive story view of the entirety of USAID's portfolio. Prior to DIS, each operating unit deployed its own portfolio management solution, resulting in redundant systems and significant costs to the agency.

M/CIO maintains two methods of project development methodology. The first is the waterfall methodology which typically is used for infrastructure projects where defined cut off times are required. The second is an Agile methodology to support application development. M/CIO chose to develop DIS using the Agile methodology which supports stakeholder and developer collaboration and rapid prototyping in order to bring usable software to production.

As documented in the DIS IT Capital Planning and Investment Control Exhibit 300A from FY 2015, USAID anticipated that DIS will achieve the following benefits:

- Standardization and streamlining of USAID business processes related to program portfolio management.
- Adoption of a single program portfolio management platform for Washington and missions overseas, resulting in the retirement of redundant systems.
- Integration of operational and programmatic data from corporate systems.
- Creation of a Portfolio Viewer that will enable advanced reporting to improve evidence-based decision making.

The high-level objectives were further documented in the DIS Program Charter on September 18, 2018, as:

- Increase the use of high quality evidence to improve development programming: DIS will help staff harness the richness of USAID's data by providing accurate, detailed evidence allowing managers to make well-informed decisions, resulting in more effective international development programs.
- Increase efficiencies across the entire program cycle, resulting in time saving for staff and reallocation of staff time: DIS is being built to improve efficiencies across the entire program cycle, resulting in time saving for Agency staff and providing them with tools to report and analyze data quickly and efficiently.
- Tell one cohesive story, from strategy to results to the Agency's internal and external stakeholders: DIS will facilitate (in a way not currently possible) the integration of budget, procurement, geographic and results data to present compelling evidence to both internal and external stakeholders about the nature and impact of USAID's foreign assistance programming.

DIS is in development and planned to be implemented under five work streams:

1. Performance monitoring and evaluation supports monitoring and evaluation within the ADS 201 Program Cycle and best practices. Implementing Partners will be using Partner Portal in DIS to submit their narratives and results and track their progress.
2. Budget planning and monitoring - enables missions to manage program funds, perform quarterly financial reviews, and other financial reporting.
3. Project Design & Acquisition and Assistance Planning - supports project design process and procurement planning conducted at missions.
4. Portfolio Viewer & Reporting - provides an at-a-glance view of activity results, supporting standard reporting needs and allowing users to create custom reports.
5. Development Data Library (DDL) - serves as USAID's central repository for all development data on USAID-funded projects to support learning and adoption.

The initial business case for DIS had planned for development and implementation to be completed in FY 2019; however, the revised schedule indicates global deployment will be complete in FY 2022. As of November 2020, DIS has deployed to seven pilot missions including nine operating units and the Asia Bureau's 13 missions including over 15 operating units. Additional missions and operating units have also decided to begin adoption ahead of scheduled deployments. M/CIO has trained approximately 995 DIS users both in person and virtually. DIS was developed and deployed with a focus on the performance monitoring and evaluation work stream. Components of the budget and portfolio viewer and reporting were also developed and implemented through monthly releases.

SCOPE AND METHODOLOGY

Scope

CLA conducted this performance audit in accordance with GAGAS. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on the audit objective. CLA believes that the evidence obtained provides a reasonable basis for CLA's findings and conclusions based on the audit objective.

The audit was designed to determine to what extent USAID was on track to achieve selected performance goals of the Development Information Solution. The selected performance goals are: (1) Adoption of a single program portfolio management platform for Washington and overseas missions, resulting in the retirement of redundant systems, and (2) Creation of a Portfolio Viewer that would enable advanced reporting to improve evidence-based decision making.

The scope of this performance audit was to assess whether DIS will meet its performance goals through review of the following areas:

- Determine what processes USAID has in place to ensure that program data in DIS is accurate and complete.
- Evaluate the processes USAID has to validate data migrated to DIS from existing monitoring and evaluation programs.
- Evaluate cost savings USAID will realize from the decommissioning of existing monitoring and evaluation systems.

Audit fieldwork covered USAID's headquarters located in Washington, DC. In addition, the following overseas missions had DIS deployed as of May 2020 and were included in our samples: Ethiopia, Vietnam, El Salvador, Nepal, South Africa, Peru, and Rwanda. Fieldwork was conducted from October 17, 2019 to January 11, 2021 and covered the period from October 17, 2019, through January 11, 2021.

Methodology

CLA conducted an initial survey to gain an understanding of the current development and deployment status of DIS. As a result of the survey phase and based on the audit objective, we refined our audit approach with a focus on selected DIS performance goals. To determine to what extent USAID was on track to achieve the selected performance goals of the DIS, CLA interviewed the key DIS stakeholders regarding system goals and performance, observed performance monitoring solutions and reviewed documentation supporting DIS performance monitoring, quality control monitoring and cost monitoring. In addition, CLA evaluated how USAID is measuring cost savings from decommissioning of existing monitoring and program evaluation systems.

CLA reviewed system development documentation, reports generated from DIS, interviewed the DIS development team, end users and program managers. Testing included inquiries and analysis into the adequacy of the end user experience, user adoption and DIS training feedback. In addition, for a sample of the pilot missions, we sampled mission reports to evaluate the use and adoption of DIS. Further, CLA reviewed

DIS's Agile development and release process which included gaining an understanding of how user stories were collected and migrated to bi-weekly sprints for development, testing, and release. CLA tested a sample of changes which included analysis of the monthly release cycle, applicable change management testing, and how USAID monitors changes in the DIS development process. CLA also reviewed and analyzed USAID's expected cost savings, cost avoidance, and measures of performance that impacted the estimated costs.

Where appropriate, CLA compared documents, such as USAID's system development documentation, to requirements stipulated in NIST special publications, best practices noted in GAO's *Agile Assessment Guide*, and the *COBIT 2019 Framework: Governance and Management Objectives*. In addition, CLA performed tests of system processes to determine the adequacy and effectiveness of those controls. In testing for the adequacy and effectiveness of controls, CLA exercised professional judgment in determining the number of items selected for testing and the method used to select them. Relative risk and the significance or criticality of the specific items in achieving the related control objectives was considered. In addition, the severity of a deficiency related to the control activity and not the percentage of deficient items found compared to the total population available for review was considered. In some cases, this resulted in selecting the entire population. However, in cases where entire audit population was not selected, the results cannot be projected and if projected may be misleading.

To perform our audit of USAID's implementation of DIS, we used the following guidance:

- NIST SP 800-53, Revision 4, *Security and Privacy Controls for Federal Information Systems and Organizations*
- NIST SP 800-53A, Revision 4, *Assessing Security and Privacy Controls in Federal Information Systems and Organizations*
- NIST SP 800-160, Volume 1, *Systems Security Engineering*
- *COBIT 2019 Framework: Governance and Management Objectives*
- GAO's *Agile Assessment Guide* (GAO-20-590G)

MANAGEMENT COMMENTS



MEMORANDUM

TO: Deputy Assistant Inspector General for Audit, Alvin A. Brown

FROM: USAID, Chief Information Officer, Jay Mahanand /S/

DATE: April 15, 2021

SUBJECT: Management Comment(s) to Respond to the Draft Audit Report Produced by the Office of Inspector General (OIG) titled, *USAID Was Not On Track To Achieve Performance and Cost Savings Goals for the Development Information Solution (DIS) System* (A-000-21-00X-U)

The U.S. Agency for International Development (USAID) would like to thank the Office of Inspector General (OIG) for the opportunity to provide comments on the subject draft report. The Agency agrees with the recommendations, herein provides plans for implementing them, and reports on significant progress already made.

Management Comments On Report

M/CIO acknowledges that the projected cost savings goals as a result of the adoption of the DIS portfolio management platform have not yet been fully realized. This is primarily because the Agency is still in the process of implementing the DIS system which includes deploying the performance management module globally by the end of FY 2021. Another significant contributing factor has been the inadequate and inconsistent funding for the implementation of the system. Uncertainty around funding since the inception of the program has slowed deployment efforts, which in turn has delayed realization of cost savings from decommissioning M&E systems. Ensuring that DIS has consistent and sufficient funding sources will be key to

realizing the cost savings goals.

An important point about the realization of costs savings relates to Page 2 of the Summary of Results which states, “In addition, USAID was behind schedule in retiring a majority of DIS’s redundant systems as they could not be decommissioned until DIS replaced their functionality or their system data is archived as required.” Here, it is important to point out that while redundant system decommissioning is part of the overall strategy, it is not the objective for DIS to fully replace functionality of existing systems. Per our previous response in the DIS Audit Review meeting held 30 Nov 2020 as well as the 11 Jan 2021 exit conference, M/CIO is building DIS as an enterprise portfolio management system to manage complex development activity operations, reporting and planning tasks in one place. Additionally, DIS operates as a FISMA and FITARA compliant platform, to ensure USAID meets federally mandated requirements. The goal of DIS is to ensure all operating units conform with Agency policies and standards, not to custom build and satisfy unique or non-compliant requirements for OUs.

Technical Comments On Report

Recommendation 2 Technical Comment: The DIS Program Team continues to be committed to continuous learning based on user feedback and to improving its deployment processes to facilitate adoption of the system. The DIS team is providing additional documentation in Tab B to support this commitment along with documentation previously provided to the audit team. This is in response to page 7 of the Summary of Results which states, “Although the Agency has taken actions to address mission implementation delays and expects the adoption rate for DIS to increase, lessons learned during the rollout were not fully documented and implemented.”

RESPONSE TO RECOMMENDATIONS BY THE U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID) ON THE REPORT RELEASED BY THE USAID OFFICE OF THE INSPECTOR GENERAL (OIG) TITLED, *USAID Was Not On Track To Achieve Performance and Cost Savings Goals for the Development Information Solution System (A-000-21-00X-U)*

Please find below the management comments from the U.S. Agency for International Development (USAID) on the draft report produced by the Office of the USAID Inspector General (OIG), which contains four recommendations for USAID:

Recommendation 1:

Revise the Development Information Solution system’s cost savings plan in accordance with the Office of Management and Budget’s Capital Planning Guidance to determine the effects that the delayed decommissioning of redundant systems may have on the related costs to maintain the systems longer.

- **Management Decision:** USAID agrees with Recommendation 1 and outlines the following proposed corrective actions for implementing the recommendation.

Updated Cost Savings Plan - The DIS Program Team will review its January 2018 cost savings plan based on additional information gained since implementing the program and update as needed. Per OMB guidance, the Return on Investment will include primary and secondary costs and benefits (internal and external to the government) and outcomes achieved or planned.

Updated Legacy M&E Systems Decommissioning Plan - The team will also revise its legacy M&E systems Decommissioning Plan to better align with the current DIS Deployment Schedule. Both of these actions will allow for a more accurate trajectory for when cost savings/avoidance resulting from system decommissioning can be realized.

Operating Units (OUs) with legacy systems scheduled for decommissioning will be required to provide an estimate of current operations and maintenance (O&M) labor support costs, and/or equipment costs (e.g., servers), that will go away and result in savings as a result of decommissioning any legacy applications. Finally, OUs intending to run legacy M&E systems in parallel with the new deployment of DIS for a period of time will provide an estimate of any additional costs incurred that would offset any original cost savings estimates.

- **Target Completion Date:** Updated Cost Savings Plan, as needed, but no later than December 31, 2021; Updated Legacy M&E Systems Decommissioning Plan, December 31, 2021.

Recommendation 2:

Document and implement lessons learned for system users that incorporates the successes achieved by the past deployments in adopting the Development Information Solution system.

- **Management Decision:** USAID agrees with Recommendation 2 and requests that it be closed upon Report issuance based upon the following completed corrective actions and the artifacts included in Tab B.

The DIS Program Team continues to be committed to continuous learning based on user feedback and to improving its deployment processes to facilitate adoption of the system. Specifically, between the initial Pilot and Asia region deployments, calculable improvements were made as a result of capturing lessons learned and implementing change. Most notably, the templates used during the Asia Bureau deployment were less complex by requiring 48% fewer fields while still gathering the necessary data. This resulted in a significant decrease in the onboarding process by 13 weeks - 2.5 times faster than the pilot Missions.

The DIS team introduced this regional deployment approach to promote efficiency in data onboarding, communications, training, and user support. The regional deployment approach improved change management efforts by sharing the management of the deployment process with Regional Bureau POCs and Bureau leadership. This Regional Bureau buy-in helped facilitate the Mission/Operating Units' commitment to the DIS deployment goals and agreed upon timelines. As a result, leadership at Missions dedicated the necessary resources to support the DIS deployment. This regional approach impacted the overall adoption of DIS at Missions significantly.

From the beginning of the program, the DIS Stakeholder Feedback Loop document outlined

multiple ways DIS collects feedback from stakeholders. The team also conducts After Action Reviews (AARs) for major processes, including the use of the Performance Plan and Report (PPR) Interface, to capture comprehensive feedback from users, business owners, and leadership. The DIS team conducts a thorough analysis of feedback and shares the findings and recommendations back with users and other stakeholders.

Currently, the DIS program uses a variety of additional mechanisms to collect feedback including participant feedback during training, user surveys, feedback solicitation during monthly meetings with DIS users, user support sessions (recurring office hours), and 1:1 meetings to coach and/or troubleshoot with Missions users. These venues allow the team to gather user input in real time and quickly make adjustments. For example, the DIS team regularly reviews and updates its training materials and creates new resources on-demand to help facilitate user learning and adoption.

As the Agency continues to roll out DIS, the team will refine its existing processes to document and incorporate lessons learned. This will be accomplished by holding an After Action Review with each Regional Bureau after they deploy DIS, documenting feedback from training, office hours, help desk tickets, user surveys, and governance meetings, quickly sharing feedback with appropriate parties within the DIS program, setting clear actions to address stakeholder feedback and reporting AAR findings with timelines for completion, and monitoring the success of the implemented change/adaptation.

- **Target Completion Date:** We request that this recommendation be closed upon Report issuance.

Recommendation 3:

Develop and implement a process to validate the data between Foreign Assistance Coordination and Tracking System Info and the Development Information Solution system to maximize its value per GAO's Agile Assessment Guide.

- **Management Decision:** USAID agrees with Recommendation 3 and outlines the following proposed corrective action plan for implementing the recommendation.

PPR Interface Data Validation Plan - The DIS Program Team will work with State/F to develop and implement a process to validate data being transmitted via an interface between DIS and the Performance Plan and Results (PPR) module of the FACTS Info system. This process will be documented in a PPR Interface Data Validation Plan approved by both M/CIO, USAID/PPL, and State/F. Based on best practices from the GAO Agile Assessment Guide, work being performed in both systems will be prioritized to maximize value for the customer. Stakeholder and user feedback will be synthesized to understand scope, complexity and business value.

The respective technical environments for both systems already enable Agile development, and their system designs support iterative delivery. As was done for the FY 2020 PPR Interface, the scope will be sliced into features with associated user stories. Each user story is assigned complexity points and are prioritized based on business value add. Repeatable processes are

already in place, including a regular sprint cadence where the team demonstrates the capabilities delivered at the end of every sprint. Communication channels and forums are already in use by both teams to work collaboratively on the interface.

- **Target Completion Date:** PPR Interface Data Validation Plan, September 30, 2021

Recommendation 4:

Develop a plan in coordination with mission executive officers, program offices and bureaus to validate participation and adoption of the Development Information Solution system to reduce reliance on external systems or components for tracking, monitoring, or reporting performance data as called for by the DIS Business Case.

- **Management Decision:** USAID agrees with Recommendation 4 and outlines the following proposed corrective action plan for implementing the recommendation.

DIS Global Adoption Plan - The DIS Program Team will work with the DIS governance boards (both the Change Control Board and Executive Steering Committee) to develop a DIS Global Adoption Plan to validate participation in and adoption of DIS. The plan will rely on the reporting of adoption metrics to ensure OUs are on track with their DIS implementation. The plan will also address the organizational change management (OCM) needed - not only for user confidence in the DIS system but also for ensuring users shift from their existing comfort zone of practices currently in use.

- **Target Completion Date:** DIS Global Adoption Plan, December 31, 2021

In view of the above, we request that OIG inform USAID when they agree/disagree with our management comments.

Tab B

Attachment B:

This attachment provides OIG and the audit team with documentation from the DIS team that directly aids in OIG's understanding of the closure request to Recommendation #2. The documents will fall into one of the following categories: Artifacts Already Provided and New Artifacts. Artifacts Already Provided will highlight documents that have been requested during the audit discovery phase; New Artifacts are documents that, while not directly asked for during the audit discovery phase, provide support to the DIS management response. Please let us know if you have any additional questions.

Artifacts Already Provided:

- **Document:** [111 Asia Missions vs. Pilot Mission Deployment Stats](#)
 - **Description:** This document was provided during the final round of PBC asks from the OIG and audit team. The original purpose of the document was to provide empirical statistics on how DIS data onboarding improved.

New Artifacts:

- **Document:** [Pilot Lessons Learned](#)
 - **Description:** This document is a distillation of the lessons learned from the DIS Pilot deployment.
- **Document:** [Asia Regional Deployment AAR](#)
 - **Description:** This document describes the after action process taken post-Asia Bureau deployment and the lessons learned from it.
- **Document:** [DIS Stakeholder Feedback Loop Strategy](#)
 - **Description:** This document describes the process that lessons learned action items will take once identified.
- **Document:** [FY20 Performance Plan and Report \(PPR\) Interface with FACTS Info AAR](#)
 - **Description:** This document describes the after action process taken post-Asia Bureau deployment and the lessons learned from it.