ACKNOWLEDGEMENTS

This report was written by Mr. Daniel Skillings and Mr. Kamran Parwana from Altai Consulting with the support of Dr. Kevin McNamara from Purdue University. The authors would like to thank Mr. Eric Davin, Mr. Iqbal Habibi, Mr. Zlatko Hurtic, Mr. Ahmad Rateb Nabizadeh, Mr. Zabiullah Tasal, and the rest of the ADCUS team for their contributions.

The authors gratefully acknowledge the assistance of representatives from the United States Department of Agriculture and Purdue University in the design and structure of the Agricultural Data Collection and Utilization (ADCUS) program, and for their continued support and advice throughout the entire process. The ADCUS team would also like to thank the Ministry of Agriculture, Irrigation, and Livestock (MAIL), and in particular, the Agricultural Statistics and Management Information Systems (AS MIS) Directorate staff who were dedicated to the program and who demonstrated tremendous growth in designing, implementing, and managing comprehensive surveys, as well as in analyzing and reporting agricultural data. The AS MIS Directorate staff should be proud of their achievements.

This publication was produced by Altai Consulting for review by Purdue University, the United States Department of Agriculture (USDA), and the Ministry of Agriculture, Irrigation, and Livestock (MAIL) in Afghanistan. Opinions expressed in the report are those of the authors and do not necessarily reflect the views of Purdue University, USDA, or MAIL.
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<td>APR</td>
<td>Agriculture Prospect Report</td>
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<td>ASMIS</td>
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<td>CBR</td>
<td>Capacity Building for Results</td>
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FOREWORD

ADCUS: A Program to Build Capacity for the Afghan Ministry of Agriculture, Irrigation and Livestock to Collect, Analyze and Use Agricultural Data

The Afghan Ministry of Agriculture, Irrigation and Livestock (MAIL) has faced many challenges over the past 10 years rebuilding both its research and extension capacities, and providing policy leadership for the development of the Afghan agriculture sector. A key challenge faced by MAIL leadership has been its ability to establish policy to guide national redevelopment with limited available information on the state of Afghan agriculture. A number of donor supported projects assisted MAIL through efforts that supported the collection and analysis of national and regional agricultural production data to give leadership the information it needed for effective policy formulation. While these efforts provided important, short-term aid to MAIL, the efforts did little to assist MAIL with the development of in-house capacity for MAIL to collect and analysis data for itself. As MAIL began developing its outreach, research and administrative capacities, its ability to collect and analyze data lagged, hampering MAIL leadership’s ability to develop and implement research, extension and policy programs to guide and meet the needs of Afghanistan’s growing agricultural sector.

Recognizing the increasing need for agriculture data within MAIL, the United States Department of Agriculture (USDA) began to work with MAIL leadership on a strategy for developing capacity within MAIL to collect, analyze and share reliable national and regional agricultural production data that could be utilized by MAIL to support its programs and policy decisions. With support from USDA, the Agricultural Data Collection and Utilization System (ADCUS) project was initiated. Purdue University, working with USDA and MAIL leaderships, worked with Altai Consulting to design the ADCUS program as a first step towards building the professional capacity within the Agricultural Statistics Unit (ASU) to meet the agricultural production data needs of MAIL.

Working within the Agricultural Statistics and Management Information Systems Directorate (ASMIS), and with its leadership, Altai crafted a capacity development program that built on the remnants of prior donor funded data collection efforts to focus on building capacity within the ASU to operate as a professional, stand alone, agriculture statistics office within MAIL--ADCUS. The project began with a realistic assessment of the professional capacities of the ASU staff to develop a systematic program for building the ASU capacity while engaging the staff in ADCUS and having them assume increasing ownership and responsibility for MAIL’s data collection program.

The following report documents the ADCUS program’s design, implementation and success. As documented in the report, the training efforts initiated under ADCUS have been successful and have helped the ASU staff develop professional capacities related to data collection and analysis, substantially professionalizing the ASU. ADCUS has also heightened awareness of the importance and value of timely, reliable data to MAIL for its effective development of research and extension programs, and for the development of agriculture and development policy.

While successful, ADCUS was a starting point for developing the ASU’s capacity. Looking forward, the authors of this report outline a strategy or approach for the continued development of MAIL’s ASU, discussing continued training and professional capacity needs as well as organizational and policy issues related to the development of an effective agriculture statistics team. This Roadmap is intended to highlight organizational and staffing
issues MAIL needs to address, as well as institutional, operational, and management capacities that need further development. Continued, timely investment in the ASU is needed to maintain and build the organization’s capacity, and help build it into a professional organization recognized for its ability to meet MAIL data needs with timely, reliable data.

On behalf of MAIL, USDA, Purdue and Altai Consulting, we would like to thank the many people in MAIL and elsewhere who committed their time and energy toward the success of ADCUS, and, to the thousands of Afghan farmers who were willing to share their time and information with MAIL and ASU staff to help the ministry develop a clearer understanding of Afghanistan production agriculture.

Dr. Kevin T. McNamara  
Assistant Director of International Programs in Agriculture  
Purdue University
EXECUTIVE SUMMARY

Concept and Overview

Senior leaders need timely and credible data for evidenced-based policy creation, for strategic planning purposes, and in order to properly allocate resources to the development of the county and to improve the livelihoods of its citizens. Like many fragile states, a glaring challenge in Afghanistan is the lack of quality data available for its leaders to make data-driven decisions, in particular in the agriculture sector. With production agriculture representing 25% of national GDP\(^1\), it is imperative that Ministry of Agriculture, Irrigation and Livestock (MAIL) leaders have the information they need to make the right decisions.

With this in mind, the United States Department of Agriculture (USDA) contracted Purdue University and Altai Consulting to implement the Agricultural Data Collection and Utilization System (ADCUS) program to help MAIL develop the capacity to collect data to meet this need and to close this immense data gap. While a number of programs had worked with MAIL to collect data in the past, the staff of MAIL itself, retained for this purpose, were involved in these processes only minimally, when at all. It was observed that once a donor-funded program ended, so too did the data outputs used by decision-makers.

Learning from past mistakes, it was determined that through the ADCUS program, the Agricultural Statistics Unit (ASU) staff should be provided the opportunity to build the basic skills they need to eventually provide agricultural data to senior MAIL leadership and other potential users in the national and international community. As such, the overarching strategic objective of the ADCUS program was to impart knowledge and provide real experience to the ASU staff on the design and management of agricultural surveys, as well as on analytical components such as data analysis and report writing. This approach was deemed much more sustainable, as it was critical that the ASU staff had the capacity to do the job at a basic level themselves post-program.

From January 2012 to September 2014, the ADCUS program included three phases and several components. The program started with a research study titled Phase I: MAIL Data Capabilities Assessment to find the most efficient and effective use of USDA funds. It was found that building the capacity of tashkeel\(^2\) staff should be prioritized over contractual staff as even though their capacity was lower, these staff members would be with the Ministry in the long-term.

Phase II: ADCUS Implementation included 4 components: (1) the Training of Trainers (ToT) course to introduce the core modules of learning to the trainees (methodology and survey design; management and data collection; data entry; data cleaning and analysis; and report creation); (2) the Pilot Survey in Balkh, Herat, and Nangarhar to test the ADCUS methodology and to provide a first applied learning opportunity for the ASU staff; (3) the National I Survey which expanded the scope of the survey to each of Afghanistan’s 34 provinces; and (4) the National II Survey with the aim of the ASU Staff having enough experience to finally produce a quality output. With each survey and as knowledge and experience grew, more ownership of activities was given to the ASU. The focus of data collection was agricultural production, so as to fill a considerable gap in data needs.

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1. The World Bank Agriculture Sector Review, 2014. This figure does not include opium production.
2. Tashkeel is defined as staff members permanently retained by the Ministry of Agriculture, Irrigation, and Livestock (MAIL). The tashkeel is in most ways equivalent to the Afghan civil service.
Executive Summary

**Phase III: Advisor Placement** built mechanisms to sustain and grow procedures leading to skill development within the ASU. Phase III placed a Statistics Advisor and a Policy Advisor full time at MAIL. The full-time advisor approach was suggested since it maximized the interaction with MAIL staff, increased training opportunities, and mitigated slack between activities. The Statistics Advisor worked with the ASU staff to reinforce Phase II trainings as well as to expand capacity for design, implementation, analysis, and management of agricultural data collection efforts. This included leading the ASU staff through the National Horticulture Survey - the most successful of the ADCUS surveys in terms of the ASU ownership and quality of data - which included a focus on 28 commodities and covered 75% of the districts of the country.

The Policy Advisor primarily worked with the Director General of the General Directorate of Planning and Programs Coordination (GDPPC) to determine internal Ministry demand for data, to create and enforce policies and procedures to drive forward the statistics agenda, and to advocate for evidence-based decision making within the Ministry.

**Current State of Affairs**

The ASU has made significant progress in its capacity development through the ADCUS program since it began in 2012. At the national level (the primary focus of ADCUS), the capacity of the ASU’s ability to design and manage comprehensive surveys, as well as to conduct basic analysis and write reports, has increased considerably. Data collected by the ASU through various surveys has provided MAIL with credible data to use as a benchmark for future collection activities and informs leaders to make timely and effective decisions.

In addition to the ASU’s technical capacity development, MAIL now has a clearly defined structure and reporting hierarchy with the ASU, Management Information Systems (MIS) Unit, and Geographic Information Systems (GIS) Unit all falling within the Agricultural Statistics and Management Information Systems (ASMIS) Directorate.

The GDPPC now has strong leadership with the understanding of the importance of statistics to support policy design and project implementation. The DG supports the use of the ASU for managerial and intellectual components of surveys, DAIL Officers for management of fieldwork in their respective provinces, and the use of contracted enumerators to collect data (ADCUS Model). The DG is confident that annual funds ($400,000) can be secured from the development budget to support this strategic shift.

While the above is certainly positive, numerous gaps remain. The structure and reporting hierarchy of the ASMIS Directorate has improved, but coordination and data sharing between the pillars and across the Ministry remains very weak. MAIL should think long term and invest in a strategy to build capacity modeled after the ADCUS program. The Ministry can use part of the development budget, as the ADCUS program has proven it can be done inexpensively. The Ministry should refuse programs that look to place numerous highly paid contractual staff members at MAIL as this approach is expensive, falsely inflates capacity and outputs for a short period of time, and when the program ends, leads to a mass exodus of staff and a halt to outputs.

Professional capacity for data collection at the sub-national level remains poor. With the closure of the EU-funded FAO FAAHM program in January 2013, funding was lost for the Statistics Officer, Codan Radio Operator, and MIS Officer. The Ministry has been able to hire a *tasheel* MIS Officer in each province, but no full time statistics position exists at the provincial level. At the district level, extension workers are being used to collect data, but they do not have the capacity (training), time, or impetus needed to ensure data quality.
Finally, MAIL still lacks credible data because of a lack of prioritization of data to be collected, substandard collection methods, non-existent M&E, inadequate staffing at the sub-national level, and a lack of budget to support positions and enumeration costs. In addition, MAIL still lacks a single database to safely store all data and a platform from which to disseminate information to the public.

**Accountability Framework**

At the onset of program design, the ADCUS team created a 10-point accountability framework as a guideline for successful implementation. This guideline was created after evaluating over 20 past and ongoing agricultural data-related programs in Afghanistan. The ADCUS program successfully delivered on 7 of these 10 components. The capacity building program was successful, and as a result, the ASU is able to collect primary data useful to MAIL - filling a critical information gap in the agriculture sector. The training materials, databases, and outputs developed and produced under ADCUS met local language requirements and were user-friendly given local capacity. Assets purchased under ADCUS were only acquired once the ADCUS team was sure MAIL could sustain the costs post-program. Finally, the ADCUS program was designed in tandem with MAIL leadership and staff, using existing human resources. As a result, collaboration was maximized eliminating the need for a difficult and cost intensive transition/integration plan to MAIL at the conclusion of ADCUS.

The ADCUS team admits that it could not meet its output dissemination goals due to bottlenecks encountered at the Ministry (slow approval process). Perhaps this could have been addressed if ADCUS had invested more funds in a communications plan. Sustainability of the ASU accomplishments under ADCUS is still in question as MAIL has yet to secure/designate the necessary budget to perform annual data collection activities and to further capacitate the ASU staff. Despite this, it appears the political will is in place to drive forward the statistics agenda. The DG of GDPPC believes in the ADCUS model and is actively lobbying for further political attention and to secure funds to meet the unit’s mandate.

**Lessons Learned**

Along with use of an accountability framework, future data-related capacity building at MAIL should take into consideration 10 key lessons learned from the ADCUS program:

1. **ADCUS benefited from a design that began with thorough research**: the first phase of ADCUS began with an assessment of other data collection capacity building programs as well as an assessment of current ASU capacity. This supported development of a relevant capacity building program that recognized the history and
current state of all donor programming in the sector as well as MAIL’s current capacity. It enabled the design of a program with realistic objectives and feasible outcomes within the ASU and MAIL.

2. **ADCUS was designed for the long-term growth of the beneficiaries, the ASU and MAIL, not the short-term gain of donors:** ADCUS recognized that prior data-related projects funded in Afghanistan were short-sighted, focusing only on the collection of credible data. By designing a program that focused on institutional capacity building through local staff skills development, ADCUS was a noticeable departure from previous projects.

3. **ADCUS partnered with MAIL in program design and implementation:** ADCUS collaborated with MAIL from the beginning rather than developing and implementing the program independently. Key MAIL and ASU representatives worked with ADCUS staff to design a program that both MAIL and the donor considered was in the best interest of the intended direct and indirect beneficiaries. This exercise built trust and confidence in the program from the start, and instilled a sense of ownership within the ASU and MAIL.

4. **ADCUS invested in existing ASU resources and infrastructure, and avoided difficult and costly transitions of program staff, assets, and activities:** A common occurrence is for off-budget programs to be transitioned to MAIL near the end of implementation as a mechanism for sustainability. This approach, in most cases, does not work as the cost of continuing the activities, hiring contractual staff and maintaining expensive assets is far too great for Ministries to absorb. Instead, ADCUS focused on investing in existing staff - not expensive contractual staff - and only purchased assets that MAIL could use and/or absorb into its budget post-program.

5. **ADCUS found incentives for beneficiaries were necessary, but the payment scheme was in-line with official MAIL amounts:** A major lesson learned through the implementation of the ADCUS program was that it is too simplistic to state that monetary incentives for beneficiaries are counterproductive. Civil servants in Afghanistan receive very low salaries, if at all. It is very unlikely that any program will be able to effectively implement its activities without some form of payment for the beneficiaries. Yet, the payment mechanism should be strict, with beneficiaries only rewarded for hard work and meeting gradually increasing expectations.

6. **Full-time placement of staff at MAIL was critical to ADCUS’ success:** Having a full-time presence at MAIL was critical to building and fostering relationships with MAIL, building and maintaining awareness of ADCUS, mitigating slack between activities, increasing efficiency, and continuously monitoring and evaluating counterparts’ progress.

7. **Determining the demand for and understanding the use of data was just as important for ADCUS as building a supply of competent statisticians:** An incorrect assumption by the ADCUS team was that if senior Ministry leadership were presented with credible data in a user-friendly manner, they would understand what to do with it and would have the impetus to act. Unfortunately, this is often not the case, and much time and effort should be focused on determining the demand for data and assisting leaders in using the information for quick wins.
8. **ADCUS eventually found a balance between building capacity and producing tangible outputs:** Although the focus of ADCUS was capacity building, the project used data reports as products for public dissemination to appease key stakeholders, and to document capacity building progress.

9. **Developing and implementing a strong communications plan is crucial to building awareness and perceived success:** Even though communications can be expensive, such costs are necessary to build program awareness so that key stakeholders know the objectives and key outcomes of the program.

10. **ADCUS developed and used a fair PMP to hold the program accountable and to measure impact:** Donors and implementing partners often set unrealistic goals for capacity building programs, and/or only measure outputs instead of impact. ADCUS kept its indicators realistic and used them to motivate ASU staff and to document progress.

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**Roadmap for Success**

Based on experience and lessons learned, MAIL should implement the following action plan over the next ten years to build a sound and sustainable agricultural statistics team:

**IMMEDIATE-TERM**

In 1394 (2015), MAIL should place great effort on planning for the sustainable development of the ASU. This includes clearly defining the data the ASU will collect and the outputs it will produce (mandate); re-structuring the department/positions to efficiently and effectively meet these demands; writing specific job descriptions for each position to hold staff accountable; developing a quality assurance plan to ensure the credibility of data; producing a timeline that includes when activities can realistically be phased into operations; and forecasting the budget needed to sustain activities and outputs. While it is likely that it will take several years before the department is able to fully meet the mandate, the actions provide the end goal which will guide long-term growth.

**SHORT-TERM**

In 1395 (2016) and 1396 (2017), the unit should commit to the strategic planning developed in 1394 (2015) by enforcing policies, positions, and standards for both activities and any new staff members. The strategic actions need to be legislated by parliament so MAIL has the impetus to act, to ensure enough budget is secured, to facilitate cooperation with other government entities such as the CSO, and to obligate reporting at the ground level. Year two and three are critical for setting the pace for day-to-day activities within the unit.

**MEDIUM-TERM**

By the end of 1398 (2019), the ASU should be an autonomous professional statistics service. The activities and outputs should be routine, as the policies, legislation and several years of experience have ensured that quality data has been collected and disseminated in a timely manner. The ASU should start the decentralization plan, gradually empowering regional DAIL offices with data entry responsibilities. In regards to Kabul, automated data entry should become the norm through smartphones and ODK freeware. Therefore, Data Entry Officers are no longer needed at the national level. At the same time, it is hoped that GIS capacity has grown, and remote sensing imagery and high resolution mapping can be used in...
combination with ground and call-based surveys to even further increase the quality of data collected and reported. Finally, by 1398 (2019), it is expected that the greater agricultural community would have developed confidence in the data reported, a drastic difference from current perceptions.

**LONG-TERM**

In the long-term, the goal is to maintain and gradually increase professional capacity at the central level, with a continued decentralization plan at the sub-national level. DAIL capacity to handle large-scale data entry will be tested during the 1400 (2021) Agriculture Census, and automated data entry should gradually be introduced nationwide until it becomes the norm by 1403 (2024). As such, manual data entry will become obsolete and DAIL attention on M&E will increase.
Introduction
I. INTRODUCTION

A. Concept

The Agricultural Data Collection and Utilization System (ADCUS) capacity building program was funded by the United States Department of Agriculture (USDA) and implemented by Purdue University and Altai Consulting from January 2012 to September 2014. The program concept was borne from the realization that a considerable gap existed in the Ministry of Agriculture, Irrigation, and Livestock’s (MAIL) ability to collect, analyze, synthesize, and disseminate agricultural data. While a number of programs had worked with MAIL to collect data in the past, the staff MAIL itself retained for this purpose were only minimally involved in these processes, when at all. It was observed that once a donor funded program ended, so too did the data outputs used by decision-makers.

Through ADCUS, it was determined that MAIL staff should be provided the opportunity to build the basic skills they need to eventually provide agricultural data to senior MAIL leadership and to the international community, including the United States Government, in order to make evidence-based decisions for strategic planning, policy creation and project implementation purposes. In the long term and given the needed institutional support, it was determined that these staff members would help to provide regular data that would allow users to properly allocate resources for the sustainable development of the agriculture sector in Afghanistan in the absence of ongoing donor programs.

B. SNAPSHOT OF PROGRAMMATIC ACTIVITIES

To start the process of overcoming this immense challenge, the ADCUS program was designed to build the capacity of the Agricultural Statistics Unit (ASU) within the Agricultural Statistics and Management Information Systems (ASMIS) Directorate to collect, analyze, synthesize and report agricultural data in Afghanistan. ADCUS programming was divided into three phases: (1) the MAIL Data Capabilities Assessment, (2) ADCUS Implementation, and (3) Advisor Placement.

Figure 2: ADCUS Program Overview
Introduction

As depicted in Figure 2, the overarching purpose of the Phase I assessment was to determine the most efficient and effective use of resources during the implementation phase. In designing the program, a priority was given to training tashkeel staff members above contractual staff, as these staff members were considered more likely to stay with the Ministry long term. Second, capacity building was made a priority over data collection at the beginning of the program, as Ministry staff had no effective knowledge or experience in designing, implementing, and managing agricultural surveys without external assistance and leadership, nor could they analyze data and produce quality reports.

As such, baseline capacity was effectively nil. The MAIL Data Capabilities Assessment led to the conclusion that the development of a statistics capability within MAIL is a long-term process. The abilities of the ASU trainees would increase over time to a level that would allow them to produce some data. However, they would not be a fully functional, professional statistics directorate for years to come, and never without continued training as well as structural and cultural reform.

These realities informed the design of Phase II trainings, which included both interactive lessons in the classroom and extensive practical activities. The Phase II program was divided into 4 umbrella activities:

The Training of Trainers (ToT) program was the first component of the implementation phase and took place at MAIL from Saturday October 6th to Thursday October 18th, 2012. The primary purpose of the ToT program was to introduce trainees to the five core modules of focus (methodology and survey design; management and data collection; data entry, data cleaning, and analysis; and report creation) and consisted of 12 training sessions, totaling 36 hours of theoretical instruction and practical group activities (please refer to the ADCUS ToT Report).

The second component was the pilot program consisted of comprehensive farmer surveys in Balkh, Herat, and Nangarhar. The purpose of the pilot program was to provide the ASU the opportunity to be involved in a large production data collection effort from conception to conclusion for practical training. The ASU staff members participated in methodology and survey design, team training and management of Directorate of Agriculture, Irrigation, and Livestock (DAIL) Officers and enumerators, data entry and validation (EpiData), data cleaning, data analysis, and report writing. ASMIS staff members demonstrated growth in regards to the core modules, but were not yet ready to independently design a
questionnaire, conduct analysis, write reports, or manage teams without external assistance (please refer to the ADCUS Pilot Report).

The third and fourth components of ADCUS Phase II were the National I (N1) and National II (N2) production data surveys which took place in spring and fall of 2013. The purpose of the national program was to reinforce the technical and managerial skills developed during the ToT and pilot through targeted surveys in each province. Each ASU trainee was assigned to lead a survey in particular provinces in tandem with DAIL Officers and enumerators, and was supported by Altai consultants. The ASU took more ownership of the national program, while Altai consultants reduced their role to training, coaching, and oversight of ASU activities. Moreover, Altai focused training courses on the more thought intensive components such as EpiData shell creation, data analysis, and writing. Approximately 85% of the total districts in Afghanistan were included in the national program (please refer to the ADCUS National I Report and the ADCUS National II Report).

The conclusion of Phase II activities was coordinated to overlap with the beginning of Phase III, which built mechanisms to sustain and grow procedures leading to skill development within the ASU. Phase III placed a Statistics Advisor and a Policy Advisor full time within the ASMIS Directorate at MAIL. The full-time advisor approach was suggested since it maximized the interaction with MAIL staff, increased training opportunities, and mitigated slack between activities.
The Statistics Advisor worked with the ASU staff to reinforce ADCUS Phase II trainings as well as to expand capacity for design, implementation, analysis and management of agricultural data collection efforts. The Statistics Advisor also worked to address structural concerns within the directorate, helping to differentiate research tasks and direct them to the most appropriate person; develop consistent schedules and procedures for collection activities; and promote activities designed to help MAIL pass down skills learned through ADCUS internally.

The most important activity led by the Statistics Advisor was the successful design and implementation of the National Horticulture Survey. The ADCUS program was asked by the ASMIS Directorate to fund a comprehensive national survey focusing on 28 horticulture commodities - 14 types of fruit including some nuts and 14 types of vegetables. A total of 299 districts were covered across the country in this survey. The district selection was based on first, the security situation; and second, the intensity of production of fruits and vegetables in that district.

As with previous ADCUS activities, the primary purpose of the survey was to further bolster the capacity of the ASU trainees to design and manage surveys, as well as to analyze data and to write quality reports. As a capstone activity, the process was largely ASU-led, an opportunity for trainees to demonstrate the skills they had learned to date. A secondary objective, however, was to provide MAIL and the greater agricultural community in Afghanistan with credible horticulture data on production, practices such as pruning and pest control, and farm-gate prices. The results of this survey will be used by MAIL and the greater agricultural community for policy and program design and implementation in the horticulture sector.

The Policy Advisor worked primarily with the Director General of the General Directorate of Planning and Programs Coordination (GDPPC) to create and enforce ASMIS policies and procedures, to assist in the reorganization of the ASMIS tasarkeel to reflect the directorate’s needs, to conduct a data demand assessment to determine agricultural data needs for senior MAIL leadership, and to advocate for evidence-based decision making by senior MAIL leadership.

The key outcomes and impact of each of the programmatic activities introduced above will be analyzed in detail within the body of this report.
II. METHODOLOGY

A. STRATEGIC OBJECTIVE, AREAS OF FOCUS AND ENDLINE EXPECTATIONS

Based on Phase I research and analysis, the overarching objective of ADCUS was to create and strengthen the capacity of the ASU team to design and conduct basic intellectual components of agricultural data collection surveys. The core areas of capacity building identified were:

1. **Methodology and Survey Design**: At the end of ADCUS, ASU staff should have a basic understanding of the purpose of research questions, and be able to relate them to the development of questions used in field research surveys. In addition, ASU should be able to develop a basic fieldwork plan, including a timeline of events, a budget, and staffing plan.

2. **Management and Data Collection**: ASU should understand methods for determining the size of a study and have been introduced to the skills needed to design, recruit, and manage a field team that is appropriate for the goals and size of a project. In addition, ASU should understand basic methods for selecting and approaching interviewees. ASU should also have the capacity needed to train enumerators in the efficient and effective use of the questionnaire.

3. **Data Entry**: ASU should have a basic understanding of how to organize and manage a data entry process. Trainees should be able to work in EpiData for data entry, understand its value for quality control, and have a basic ability to create a data shell, enter data in the program, and export data from EpiData to other programs for analysis.

4. **Data Cleaning and Analysis**: ASU should fully understand the importance of verifying and validating data for quality purposes, and have a basic knowledge of carrying out such a function. In addition, ASU should have the basic ability to conduct frequencies, percentages, and crosstabs as well as be able to describe and articulate results and create clear and meaningful figures and tables to display data.

5. **Report Creation**: ASU should have a basic understanding of Word formatting, understand the difference between description and analysis, as well as have a basic ability to write a report outline and develop the outline into a full report. Furthermore, ASU should have a basic understanding of editing best practices and the importance of widely distributing publications to the agricultural community (hard and soft copies), having a database of recipient information, and the significance of having a “dissemination vehicle” for marketing purposes.
B. PERFORMANCE MANAGEMENT PLAN AND TESTING INTERVALS

To measure the impact of the overarching strategic objective and more specifically the capacity building areas of focus, a Performance Management Plan (PMP) was developed *(please refer to the ADCUS PMP)*. It was determined that ASU staff members’ capacity should be measured through two types of testing:

1. Theoretical comprehension exams on the 5 core areas of development outlined above
2. Practical application evaluations on the 5 core areas of development during actual data collection efforts via a carefully crafted evaluation scale

The evaluation scale used was intended to track trainee progress in relation to their ability to carry out the tasks of a professional statistics organization, with scores defined as follows:

<table>
<thead>
<tr>
<th>Evaluation Scale Key</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 No knowledge of subject</td>
<td></td>
</tr>
<tr>
<td>2 Aware of subject, but no technical skill</td>
<td></td>
</tr>
<tr>
<td>3 Ability to carry out instructed tasks related to subject with intensive coaching</td>
<td></td>
</tr>
<tr>
<td>4 Ability to carry out instructed tasks related to subject with minimal coaching</td>
<td></td>
</tr>
<tr>
<td>5 Ability to carry out instructed tasks related to subject independently with intensive oversight</td>
<td></td>
</tr>
<tr>
<td>6 Ability to carry out instructed tasks related to subject independently with minimal oversight</td>
<td></td>
</tr>
<tr>
<td>7 Basic professional proficiency in subject</td>
<td></td>
</tr>
<tr>
<td>8 Intermediate professional proficiency in subject</td>
<td></td>
</tr>
<tr>
<td>9 Advanced intermediate professional competency in subject</td>
<td></td>
</tr>
<tr>
<td>10 Full professional competency</td>
<td></td>
</tr>
</tbody>
</table>

The end goal of the ADCUS program was for the average score of the ASU trainees to be 5.5 or above on each core module taught.

Each wave of testing held different levels of significance throughout the program. For example, the theoretical comprehension exams were the main measurement of impact during the ToT program, while results of the practical application evaluations were the primary indicators during the pilot and various national data collection efforts. Altai’s ownership of activities decreased through the life of the program as the ASU’s capacity increased and trainees were able to perform functions more adequately. Accordingly, Altai’s role shifted gradually to coaching, oversight, and conducting evaluations of ASU performance. Data from the tests were entered, stored, and analyzed in Excel, and all results were submitted to Purdue and USDA according to the reporting periods outlined in Table 1.
Table 1: Reporting Periods

<table>
<thead>
<tr>
<th>Component</th>
<th>Testing</th>
<th>Altai Role</th>
<th>MAIL Role</th>
<th>Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>ToT</td>
<td>Theoretical exams</td>
<td>Introduction of core areas to ASU</td>
<td>-ToT trainees</td>
<td>October 2012</td>
</tr>
<tr>
<td>Pilot</td>
<td>Practical exams on certain core areas</td>
<td>Ownership of all activities</td>
<td>-Trainees -Play supportive role</td>
<td>March 2013</td>
</tr>
<tr>
<td></td>
<td>-Practical application evaluations on certain core areas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National 1</td>
<td>-Practical application evaluations</td>
<td>-Ownership of certain activities based evaluations of ASU capacity at end-pilot -Coaching and oversight</td>
<td>-Ownership of certain activities based on capacity determined at end-pilot -Supportive role on others</td>
<td>July 2013</td>
</tr>
<tr>
<td>National 2</td>
<td>-Practical application evaluations</td>
<td>-Coaching and oversight</td>
<td>-Ownership of most activities depending on results of N1</td>
<td>December 2013</td>
</tr>
<tr>
<td>Horticulture Survey/ Final Report</td>
<td>-Practical application evaluations</td>
<td>-Oversight</td>
<td>-Ownership of all activities</td>
<td>September 2014</td>
</tr>
</tbody>
</table>

C. ACCOUNTABILITY FRAMEWORK

Based on the analysis of past and present donor funded agricultural data collection related projects (lessons learned) during the MAIL Data Capabilities Assessment, it was determined that the ADCUS implementation program (and any other future agricultural data/capacity building focused program) should be held accountable against the following 10-point accountability framework:

1. SUSTAINABILITY: MAIL BUY-IN, FINANCIAL OUTLOOK & TECHNICAL CAPACITY

First, MAIL needs the political will necessary to continue the operations of any given data related capacity building project. MAIL ‘buy-in’ during the process requires advocacy on the part of the donor and project implementer to influence senior representatives of MAIL that the continuation of the project is necessary. In addition, the donor and implementing partner should be conscious of the total costs of the program and data asset in question, and the technical capacity needed to operate the mechanism. MAIL should have the prospect of funding and maintaining the effort in the post-project period. Organizations should not fund projects far beyond the financial and technical reach of MAIL, but in the event that the

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3 Between the National 2 and National Horticulture Survey reporting periods, trainee progress reports were submitted in April and June 2014. While these reports provided valuable training updates, they are not counted in the PMP as no major survey took place.

4 Over twenty agricultural data sources were analyzed and many of them were lacking one or many of the elements necessary for sustainable success.
project is beyond current MAIL capacity, the funder and implementer should plan for financial support and a capacity building program post-project operations.

2. USEFULNESS OF DATA EFFORTS

Data collection efforts should include a sector market assessment to understand the needs of MAIL and the agricultural sector in general; to ensure the data being collected is not already being collected by another source. The data collected should fill a sector gap or at the very least add an original aspect to complement another initiative. Redundancy of donor and implementer efforts is a common problem in the agriculture sector in Afghanistan.

3. DATA SOURCES: PRIMARY VS. SECONDARY

Depending on the objectives of the project and the needs of the agriculture sector, data should be collected via primary or secondary sources. If quality primary data is already being collected and disseminated on a particular commodity, another organization should not repeat the process. Instead, organizations should share the data to reduce wasted resources. However, if primary data is not available for a particular commodity, the organization should conduct such efforts to fill a gap, so long as doing so is within the mandate of the project.

4. LANGUAGE REQUIREMENTS OF OUTPUTS: DARI, PASHTO, AND ENGLISH

An often-overlooked variable is the language options attached to training materials, databases, websites, and publications. All materials and data should be available at a minimum in Dari and Pashto to satisfy local needs, as well as English for international policymakers to access and make data-driven decisions.

5. USER-FRIENDLINESS

The training materials and database should be user-friendly to suit the needs of the local environment and the sophistication of the end-user. For many Afghans at MAIL and in the agriculture sector in general, even simple databases are perceived as complex as many have not had the opportunity to be educated on computer use or the information systems.

6. DISSEMINATION MECHANISMS

An integral component of any data project is the analysis and dissemination mechanisms offered such as a user-friendly and comprehensive website, publications, and data circulation to key organizations. Moreover, while databases created for open access will drive more consumption, privately accessible databases are often required in for-profit data collection efforts or for sensitive information.

7. AWARENESS & MARKETING

Much of the redundancy in data collection efforts in Afghanistan could be prevented by building awareness of the database and marketing the data products to their targeted end-users. These awareness efforts are an important step to build coordination and reduce the waste of resources in the agricultural sector.
8. INFRASTRUCTURE NEEDS

A major inhibiting factor for the sustainability of any agricultural data project is the infrastructure challenges associated with operating in Afghanistan. Implementers should ask questions such as:

- Can MAIL host the website?
- How much energy is needed to operate the technical equipment?
- Is a fast internet connection necessary for the success of the project?
- Do staff members need laptops and the latest licensed software?
- How often does the data need to be collected and inputted?

9. COLLABORATION WITH MAIL

Projects end, and the lasting impact will inevitably be the capacity building components with local counterparts throughout the life of the project. Therefore, it is ideal if MAIL counterparts are involved in the process from the beginning so that local capacity makes advancements. In addition, programs should focus on permanent tashkeel staff, not short-term contractual employees.

10. INTEGRATION/TRANSITION PLAN TO MAIL

In addition to collaboration with tashkeel staff throughout the life of the project, implementers should have an integration plan of datasets and a transition plan of operations to a local entity in place from the beginning.

Picture 5: Enumerator training in Nangarhar during N1
D. Snapshot of Data Collection Approach

For each of the 4 data collection activities, the ADCUS team developed and enforced a comprehensive fieldwork management approach in tandem with the ASU. Like all programmatic activities, the ASU trainees had more ownership of fieldwork management as they gained more experience through each survey iteration.

For each of the 3 national surveys, the fieldwork was divided into 8 management zones as follows (* denotes zone training center):

- Zone 1: Kabul*, Parwan, Kapisa, Panjshir
- Zone 2: Nangarhar*, Kunar, Nuristan, Laghman
- Zone 3: Kunduz*, Badakhshan, Takhar, Baghlán
- Zone 4: Balkh*, Faryab, Jawzjan, Sari pul, Samangan
- Zone 5A: Paktya*, Ghóst, Logar
- Zone 5B: Ghazni, Paktiaka, Wardak
- Zone 6: Kandahar*, Nimrooz, Helmand, Zabul, Urzgan
- Zone 7: Herat*, Farah, Badghis, Ghor
- Zone 8: Bamyan*, Daykundi

Zones were created taking into account travel time to the zone center, the security situation at the time of fieldwork, and based on mitigating the chance of ethnic tensions amongst training participants.

In addition, the fieldwork was divided into two cycles to make sure not all ASU staff were in the field at the same time. MAIL ASU staff were assigned to each zone to lead the effort, and were supported by an ADCUS professional.

In each zone, the ASU staff members were assigned to travel to the zone training center to first train the DAIL Officer counterpart, and second to monitor the recruitment and selection of enumerators based on phone and in-person interviews. The ASU and their DAIL colleagues had final decision-making authority on the selection of enumerators.

Once the training was complete, the ASU staff members returned to Kabul and managed the DAIL Officers under their control via daily phone calls to ensure quotas were being met and to discuss any challenges encountered. The DAIL Officers in each province were responsible for the M&E both by phone calls (10% of sample per province) but also by in-person spot checks where security permitted. ADCUS professionals monitored the process in each zone and also conducted M&E spot-checks in each province, including less permissive areas where MAIL and DAIL employees were not able to travel. All of these monitoring mechanisms were in place to better ensure the credibility of data.

Enumerators had to complete 5 interviews per day, and had on average 20 days of interviews. They were responsible for sending completed forms to DAIL Officers. The DAIL Officers were responsible for checking questionnaires and then once verified and validated, for sending the completed forms to Kabul. Once the questionnaires were sent to Kabul, they were checked a third time by the ASMIS Directorate to be sure of the legitimacy of the results. The ASMIS Directorate was responsible for safe storage of the questionnaires.
Finally, the ADCUS team reviewed the questionnaires and informed the ASU staff members of errors found on the forms. With each survey iteration, the number of mistakes found decreased substantially.

E. LIMITATIONS

The ADCUS program identified a number of limitations in both maximizing and evaluating impact, given the subjective nature of capacity building, described below:

1. Measuring and evaluating capacity building in some areas could be subjective, such as general management capacity. To mitigate this challenge, a detailed evaluation scale was developed to standardize evaluation of participants based on specific criteria and to minimize subjective criteria to the highest extent possible.

2. The lack of basic abilities, including computer skills, math skills, and time management, among others, required training to be conducted at a very basic level. It was not expected that many, if any, of the trainees would be able to perform more than basic statistical functions at the close of the program, or to understand the underlying theory behind the operations they are performing.

3. Demands on the trainees’ time from the directorate and other programs were unpredictable. MAIL was rarely able to provide a useful schedule of trainees’ responsibilities and activities for adequate ADCUS planning purposes.

4. Cooperation from the ASMIS Directorate and MAIL leadership as a whole was sporadic. Materials or timelines that needed approval from the Ministry or the ASMIS Directorate were rarely reviewed in a timely fashion or at all.

5. A potential risk identified was that skills transferred would be lost after the end of the program. To mitigate this, Ministry employees at all levels were coached throughout the process to expect that their duties included continuing and overseeing the types of activities being performed. In addition, senior level engagement was critical to ensure continued use and development of the skills transferred.

6. The availability of DAIL Officers with the required skills was uneven throughout the provinces, with more rural provinces posing a much greater challenge in terms of finding appropriate trainees. This challenge also applied to transportation and general infrastructure in these areas.
The Current State of Affairs
III. CURRENT STATE OF AFFAIRS

A. Introduction

While the ADCUS mandate is limited to improving the basic technical capacity of the *tashkeel* statistics staff within the ASU, it must be acknowledged that this capacity can only be utilized given an enabling structure and workplace culture. The following section builds upon the information provided in the 2012 MAIL Data Capabilities Assessment, marking changes in the ASMIS Directorate since that time and allowing the work completed by ADCUS to be evaluated within the overall context of the actual Ministry environment as it exists today.

While the Directorate has undergone significant changes in the intervening years, it still lacks at its core either a defined mandate with a regular and actionable work plan or strong, technically-capable leadership that would drive the directorate forward.

B. ASMIS Directorate Structure

*Figure 5: ASMIS Directorate Organogram 2014*

*Positions without names are currently vacant*

**The primary trainees\(^2\) of the ADCUS program are highlighted and within the dashed square**

***The numbers in brackets refer to the pay grade of the position (1=highest, 5=lowest)***

One of the key challenges identified in 2012 was the poor organizational structure and as a consequence, poor coordination between the two entities primarily responsible for data collection, storage, and dissemination at MAIL. At that time, it was unclear if the Agricultural

\(^2\)The ADCUS program has also worked with the MIS Unit to build internal awareness of its mandate and platform, funded a short-term training program for the GIS Unit, and provided training for employees of each DAIL office.
Statistics and Market Information (ASMI) Unit reported to the Management Information Systems (MIS) Unit, or vice versa. In addition, while MIS was made up of competent and highly paid contractual staff members (average monthly salary of 1,000 USD), ASMI consisted of lower educated and much lower paid tashkeel staff (average monthly salary of 145 USD), which created a rift and further complicated the relationship between the two units. Even though each unit had a different mandate - ASMI was responsible for primary agricultural price and production data collection at the national, provincial, and district level in all 34 provinces in Afghanistan, and MIS was the principle source, means of storage, and dissemination for on-budget project related data for MAIL - it was imperative that the units collaborate to share information, to reduce redundancies, and to amplify unit strengths.

As seen in Figure 5, MAIL has reorganized the structure, as both MIS and ASMI fell under what is now known as the Agricultural Statistics and Management Information Systems (ASMIS) Directorate, which is within the GDPPC. MIS is responsible for reporting to the Director of ASMIS (former Head of ASMI), and therefore, the reporting structure is now clear. ASMIS consists of three pillars: MIS, GIS, and ASU.

While the structure has improved on paper, ineffective coordination between the different pillars remains a barrier for the dissemination of useful data. The agricultural price and production data collected by ASU is not shared with MIS for safe storage. As such, much of the data from past surveys is saved on personal hard drives if at all, and in a variety of formats which makes the data easy to lose and difficult to use. For its part, MIS’ mandate does not include the safe storage of agricultural price and production data, nor has it trained ASU staff on how to use its online application/database. No requests are made to the GIS Unit from either MIS or ASU for remote sensing data or maps to support information that is collected on the ground. As a result, if senior leadership requests information that requires data from each of the pillars, this request cannot be accommodated. Senior leadership receives each of the pieces separately and will then have to synthesize the information themselves.

The primary reason for the lack of coordination and overall effectiveness of ASMIS has not changed: the gap between technical human resource needs and financial resources available is far too great. The collection, storage, analysis, and dissemination of credible data is highly technical and therefore requires well educated staff with a specific skillset. MAIL cannot afford highly technical individuals on the tashkeel pay scale, and therefore requires donors to fund certain positions (MIS and GIS) which is unsustainable because funding inevitably ends. In this regard, when contractual staff leave, they are either not replaced or replaced with tashkeel staff that do not have the technical capacity to fulfill the mandate. This leads to high turnover and a mix of tashkeel and contractual staff with vast differences in salaries and capacities working side by side in the Directorate. Coordination is hampered because tashkeel staff are averse to working with the contractual staff due to the differences in salaries, and the contractual staff are reluctant to work with tashkeel staff because of the differences in abilities. As it happens, ASMIS is all tashkeel while GIS and MIS are led by contractual staff, and the Directorate is led by a senior tashkeel bureaucrat who does not have the technical or the managerial capacity to enforce coordination between the pillars.
Focus Box 1: MIS Unit HR Challenges

**MIS Unit: HR challenges have hampered effectiveness:** In 2012, the MIS Unit consisted of 12 highly qualified individuals on high contractual salaries. By the end of 2013, the unit consisted of 4 individuals as funding ended and the World Bank Capacity Building for Results (CBR) program has been slow to absorb these salaries. In June 2014, MIS once again has 12 staff members, but 7 are *tashkeel* (CBR funding is still not available at these lower positions) and these individuals largely do not have the skillset needed to fulfill their responsibilities. In addition, they are less inclined to work hard when some of their colleagues are making upwards of ten times more per month than themselves. As such, MIS has made very little progress since 2012, at which time they planned to roll out the online application/database for project related data collection and train staff from across the country on how to use the system. The intranet is still not in widespread use and MIS staff at the sub-national level are not aware of the system, let alone trained on how to use it.

In conclusion, while the structure has improved, it has not led to better coordination between MIS, GIS, and statistics, which ultimately hampers effectiveness. Data efforts will only truly be improved when the Ministry can afford to pay higher salaries to retain highly skilled professionals. Relying on donors to fund these positions has been less than effective as it first creates a rift between contractual and *tashkeel* staff members with similar mandates, and is unsustainable as funding ends. This leads to a mass exodus of staff, leaves the Ministry scrambling to fill positions, and ends in a halt to outputs. In the short term therefore, it is much better for MAIL to staff positions with what they can afford and for donors and their implementing partners to train these *tashkeel* staff over a period of a few years as opposed to funding positions that will certainly end. In this regard, the ADCUS model of long-term capacity building and few contractual staff placed at MAIL is much more sustainable, and should be emulated by any future programs.

C. **ASMIS Directorate Capacity and Needs**

**Agricultural Statistics Unit**

Table 2: Key Facts and Figures of ASU

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsibilities</td>
<td>Collection and analysis of agricultural data (prices, production, livestock) at the national and sub-national level for analysis. In addition, the data is provided to the CSO for publication.</td>
<td>Same</td>
</tr>
</tbody>
</table>
Current State of Affairs

Market Briefs with USAID Agriculture Credit Enhancement (ACE) project
- Trade Flow Briefs with USAID ACE
- Rain & Snowfall Briefs with Agro-Meteorological (AgroMet) project
- Statistical Yearbook & National Risk and Vulnerability Assessment (NRVA) agriculture section in collaboration with CSO

Key Donor

<table>
<thead>
<tr>
<th>Kabul Based Staff &amp; Average Monthly Salary</th>
<th>EU/FAO FAAHM</th>
<th>USDA/Purdue/Altai ADCUS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-11 staff members</td>
<td>-11 Staff members</td>
</tr>
<tr>
<td></td>
<td>-7,277 AFN (145 USD)</td>
<td>-9,110 AFN (157 USD)</td>
</tr>
</tbody>
</table>

Provincial Based Staff & Average Monthly Salary

| Provincial Based Staff & Average Monthly Salary | -68 staff members (one Codan Radio Operator & one Statistics Officer per province) | -No full-time provincial based staff members |
|-------------------------------------------------|----------------------------------------------------------------------------------|
|                                                 | -100 USD stipend paid by FAO                                                   |
*Only 15-20% of time spent on agricultural statistics related activities

Typical Educational Background

| Typical Educational Background | Kabul: Domestic higher education, BSc Faculty of Agriculture, from multitude of Afghan Universities | Provinces: High school graduates |
|-------------------------------|-----------------------------------------------------------------------------------------------------|

Institutional Capacity to Perform Function

<table>
<thead>
<tr>
<th>Institutional Capacity to Perform Function</th>
<th>Very Poor at national and sub-national levels</th>
<th>Low average at national, very poor at sub-national</th>
</tr>
</thead>
</table>

**CAPACITY: NATIONAL LEVEL**

Focus Box 2: Key Highlights of ASU Capacity Development via ADCUS

In 2012, baseline capacity was effectively nil across all core areas of focus: (1) methodology and survey design; (2) management and data collection; (3) data entry; (4) data cleaning and analysis; and (5) report creation.

Now in 2014, the ASU team can draft each of the aforementioned intellectual components and are able to manage surveys, albeit still with some need for support and coaching. The ASU team can now develop moderately good research questions, and can write more specific survey questions that are linked to the broader objectives. The staff members

*The exchange rate in June 2012 was 1 USD = 51.5 AFN. In June 2014, the exchange rate is 1 USD = 58 AFN.*
can draft a methodology, a Gantt chart, and budget for the fieldwork to be implemented. The team is able to create interview questions, conduct the interviews independently, and score the candidates on a scale for each question. ASU can create a monitoring questionnaire and is able to perform M&E in person and on the phone. The team can create an EpiData data entry shell and both speed and accuracy of data entry has improved greatly over the past 2 years. The ASU team can perform basic data cleaning, including post-coding and the identification of duplicates and outliers, and now understand the appropriate mechanisms to deal with erroneous data. ASMIS can create pivot tables and can perform basic analysis such as frequencies, percentages, and cross-tabulations. Finally, ASU can draft full reports, like they did for the recently completed National II Survey and National Horticulture Survey now awaiting MAIL leadership’s approval for publication and dissemination.

Despite great progress, much more skill development is necessary across all core areas of focus at the national level. At the end of ADCUS, the level at which ASU can independently produce analysis and reporting is below what would be considered professional in most of the world, and the continuation of external assistance is necessary in order to meet this standard. In that regard, the ongoing EU Landell Mills program is instrumental in continuing to build the capacity of the ASU team for the next three years. It has been suggested to the Landell Mills team that the same methodology is enforced, with ASU taking control of the intellectual components and overall/regional management, DAIL counterparts managing fieldwork and M&E in their respective provinces, and the use of temporarily contracted enumerators for comprehensive surveys.

**Evaluation Scale**

In the following section, the work of ASU as a whole is evaluated, in comparison to performance in activities since the beginning of the program. Each module includes a brief analysis of baseline capacity, current capacity, and what they need next. In addition, each module includes graphs that illustrate the average score of the ASU team for each of the surveys implemented.

The evaluations are based on the use of a simple scale with points ranging from 1 (no knowledge of the subject) to 10 (full professional proficiency). The scale shows two important relational measures: how well the trainees are progressing compared to one another, and how trainees are progressing on their way to becoming a fully professional directorate. It should be noted that no trainee is at this time expected to have a basic professional proficiency in any of the subjects taught.

Methods for determining scores vary by module, ranging from wholly subjective observations, to objective measures of work completed. Objective measures are used whenever possible, with measures based largely on the ADCUS PMP. However, in many cases scores have been influenced by specific observations made during the course of trainings or fieldwork, which may not be accounted for by measurements specified within the PMP.

The evaluation team expected that some variation in skill level would exist throughout the program both between individual trainees, and between the subjects taught. However, the end goal for the average trainee at the conclusion of the program was to score 5.5 or above.

Scores are also reported for the end of previous phases (e.g., post-Pilot, post-National I, post-National II). It should be noted that in the pre-pilot assessment, trainees in every case scored at the lowest point of the scale.
Module 1: Methodology and Survey Design

Prior to ADCUS trainings, the ASU team had never before been asked to create a tool for an agricultural survey, and few trainees understood the difference between quantitative and qualitative research. Furthermore, ASU had never created a fieldwork plan, including a timeline, budget, or staffing plan. As such, much time was spent with the trainees through the ToT to introduce key topics, and the team gained critical practical experience developing actual methodologies and survey tools through the 4 ADCUS sponsored surveys.

Overall, the ASU staff have demonstrated continued improvement in their experience and knowledge. From the pilot survey to the NHort, the team took more ownership of methodology and tool design. Documents designed during the pilot were heavily edited with Altai coaches, with extensive discussion of the process occurring before, during, and after fieldwork in order to help ASU understand why such decisions were made. However, throughout subsequent surveys trainees were given room to experiment with different ways of asking questions in order to gain first-hand experience in how this can affect results and steps that occur later in the research process. Later surveys each involved less direct editing by Altai, with the most valuable input coming at the end of each survey, after which trainees incorporated their experience into the next document. The final NHort survey documents received no direct editing from Altai. Although documents drafted by trainees were not at the standard that would be considered desirable by MAIL, trainees became experienced with a process of evaluating the results of their work, and are now well-equipped to continue developing stronger tools in the absence of international trainers.

At the end of the program, the team could draft moderately well-formulated research questions, and were able to develop more specific survey questions linked to the broader

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Note that for the sake of clarity in conducting lessons, certain topics were separated in ways that may at first seem counter-intuitive. For example, while methodology was covered in Module 1, sample size and selection were included in Module 2, which covered field team management and data collection. This presentation made the most logical sense for trainees just beginning to understand the concepts, and was retained in subsequent evaluations in order to remain consistent.
objectives. The staff could draft a methodology, including a Gantt chart, a staffing plan, reporting tools, and a budget for fieldwork to be implemented. Altai’s involvement in this stage of the NHort survey was minimal, primarily involving final checks of documents produced and overall monitoring, with the ASU staff operating relatively independently.

The ASU trainee progression throughout the ADCUS program is depicted in Figure 6 and Figure 7. As a group, ASU met the end goal of an average score of 5.5 (ability to carry out instructed tasks related to the subject with intensive oversight) for the methodology module. The scores ranged from 3.5 (ability to carry out instructed tasks related to the subject with intensive coaching) to 6.5 (ability to carry out instructed tasks related to the subject independently with minimal oversight).

While this progress is admirable, the ASU trainees are far from attaining the level of skill they need to operate fully independently. To attain this level, the key to success is quite simple: the ASU team needs more practice in designing basic tools and fieldwork approaches. Over time, as confidence continues to grow, the team will be in a much better position to make final decisions (as of now they can create quality drafts, but cannot finalize). In addition, the ASU will have an easier time designing tools when they are given more guidance from the Ministry on what information they should be collecting on a regular basis. As of now, most initiatives are ad-hoc, and usually donor driven. It is estimated that it will take two years of additional training and practical experience before ASU can act independently in this regard.

Module 2: Management and Data Collection

Like module 1, the ASU team had no effective knowledge of key management components of the data collection process. The team members did not know the basic steps to determine an appropriate sample size, did not know how to recruit, train and manage sub-national actors, and did not understand the importance of creating monitoring and evaluation mechanisms to ensure quality data.

Two years later, the ASU capacity has increased significantly, as team members are able to create interview questions, can conduct interviews independently, and can score the candidates on a scale for each question. The ASU now understands the importance of creating a monitoring questionnaire, and is able to perform M&E in person, on the phone, and can manage sub-national counterparts to carry out this function. Finally, in general the ASU understands the basic theory behind a sample size, how it relates to confidence intervals and confidence levels, and is able to determine what is adequate to have statistically significant results. However, like all organizations conducting surveys in Afghanistan, determining appropriate sample sizes is very difficult given a lack of quality population data, and sub-population data such as on the number of farmers nationally, provincially, or by district. As such, the ASU team understands the importance of over-sampling when the budget allows, as this is the best course of action available to better ensure representative data.
Of each of the key modules covered through ADCUS, overall this is the component in which the ASU team performed the best. It is not surprising as for the exception of sample size determination, it is the least thought intensive. As seen in Figure 8 and Figure 9, the ASU team easily met the end goal of 5.5. Yet, management capacity does vary greatly among team members, and therefore, moving forward the directorate should determine who should be allocated management tasks based on observed leadership capacity, not just on seniority. Trainee scores ranged from 4 (ability to carry out instructed tasks related to the subject with minimal coaching) to 7 (basic professional proficiency in the subject). Focus Box 3 below highlights one such individual, Mohammad Ehsan Omary, who demonstrated strong leadership and managerial capacity.

**Focus Box 3: Mohammad Ehsan Omary - Strong Leadership**

“The ADCUS program was very effective, as the trainers gave me the skills necessary to design a survey and to manage my staff. I have learned how to properly train my staff through all of the tools provided to me, and I am much more confident in my position than I was two years ago."

Ehsan has been working in the ASMIS Directorate since its establishment as the Head of ASU. He graduated from Kabul University in 1987 with a BSc of Agriculture (horticulture specialization).

He is responsible for leading and managing the ASU staff in the collection, analysis, and dissemination of agricultural production data and prices of commodities. He reports to the Director of ASMIS.

Ehsan stood out as one of the sharpest trainees, as he was dedicated to the process and as such greatly improved his capacity. He can comfortably draft tools and management instruments, can create an EpiData shell and can perform basic analysis functions in Excel. Ehsan is a natural leader, who is respected by both his superiors and subordinates. The ASU team is in good hands with Ehsan as its leader. Yet, he will need some more support before he can operate independently as a professional in his field.

Moving forward, targeted managerial trainings should be provided to Ehsan and a few others with potential while the rest of the team should specialize in data entry and analyst roles.
Module 3: Data Entry

Of all modules covered by ADCUS, data entry is the area in which the trainees had the most experience before the beginning of ADCUS. Seven of the trainees had worked with prior programs to enter data directly into Excel spreadsheets or SPSS. Basic computer skills within the unit, though, were distributed extremely unevenly, leading to drastically differing entry speeds and accuracy from one trainee to another.

Training related to data entry included four distinct pieces: (1) Managing the data entry workflow; (2) Creating a data entry shell in EpiData; (3) Entering forms through EpiData; (4) Storage of forms post-data entry. While the program had a great deal of success with items 2 and 3, trainings related to items 1 and 4 were less successful.

While the ASU is now able to organize and manage data entry to a degree that the work is completed on schedule, the process is subject to internal squabbles stemming from the large disparities in ability and motivation between staff members. While ADCUS coaches attempted to turn much of data entry management over to ASU early in the process (during National I), the process of handing ownership over to the trainees repeatedly needed to be scaled back to address arguments between trainees and ensure work was completed properly. While ASU was in full control of the process by the time of the final survey, the level of organization of the process fell below the original expectations of the project.

ASU staff were trained in the use of EpiData for entering forms. This program was chosen for two primary reasons. First, the program is relatively simple to use and results in a lower rate of errors than would be the case with less structured forms of data entry such as entering data directly in Excel or SPSS. Second, the program is offered by the developer at no cost, avoiding the licensing problems so common in Afghanistan and allowing the unit to continue to use the program indefinitely without concern for acquiring licenses or, more likely, cracked software when computers are replaced or added.

ASU staff surprised ADCUS trainers considerably with the speed at which they picked up data shell creation. The process involves a low level of computer coding, and is among the more technical processes covered throughout the trainings. During both the National II and Horticulture survey trainings, ASU staff produced finished EpiData shells independently, with minimal corrections made by Altai staff after the fact.

All ASU trainees have improved their ability to enter data quickly and accurately. As seen in Figure 10, much improvement has been observed from the pilot survey to the horticulture survey, with the average group score meeting the end goal of 5.5. However, there remains
a significant skill differential between trainees, with the best data entry operators often able to enter in a day what the worst can enter in one week. Trainee end-line scores ranged from 3.75 to 6.5. The significant difference arises from, first, the poor computer skills among a few trainees who are able to type only at a very low level, and second a poor degree of motivation among these same trainees. Developing a greater degree of ownership of and responsibility for the final survey outcome, as well as a stronger awareness of the importance of deadlines, must be encouraged to help ASU function as a data entry team rather than a group of unaccountable individuals.

Figure 11: ASU data entry time per activity (difference from ASU average)

![Figure 11: ASU data entry time per activity (difference from ASU average)](image1)

Figure 12: ASU data entry time per activity (difference from Altai average)

![Figure 12: ASU data entry time per activity (difference from Altai average)](image2)

Finally, ASU puts little effort into responsible storage of survey forms. The unit was pressed during the most recent horticulture survey to find space and develop a plan for storing results. However, at the time of writing, over a month after data entry was completed, forms remained in random piles spread between offices, occasionally even used as doorstops.
During the NHort survey, the use of ODK software on mobile phones was piloted in Kabul province. Encouraging ASU to adopt this form of data collection would remove the need for data entry, increasing the accuracy and verifiability of results and reducing or eliminating time and costs related to data entry. As discussed elsewhere in this report, it is recommended that ASMIS adopt this method of collection to the largest degree possible.

Similar to other modules, moving forward the best Data Entry Officers should be selected to specialize in this role, and targeted trainings should be provided to these individuals. As Focus Box 4 details, Ghulam Farooq Mohmand excelled at data entry and this should become one area of specialization.

Focus Box 4: Ghulam Farooq Mohmand – Data Entry Best Performer

Through the ADCUS program, Farooq developed a keen interest in data entry and data cleaning, and has become the most efficient and accurate team member in this regard. Prior to ADCUS, Farooq had no effective knowledge stating:

“Before the program began, I had not even heard of EpiData. Now I am able to create a quality shell to export data to Excel and I have become quite fast in entering data, while making few mistakes.”

By the end of ADCUS, Farooq had taken a leadership role during data entry activities, with Ehsan and other colleagues relying on him for assistance when needed.

Module 4: Data Cleaning and Analysis

ASU staff had never before had any training or practice in either data cleaning or analysis, and had no understanding of what the process involved. While math ability among trainees began at an acceptable but basic level, computer skills were for the most part extremely low, complicating this process to a degree. In order to minimize the learning curve for these activities, it was decided that cleaning and analysis would be taught in Excel, as all trainees had the program and had at least used it for data entry and storage before. Excel was also...
seen as the strongest choice as skills learned in Excel, as opposed to programs more specifically dedicated to data analysis, would be useful in a wider variety of applications related to the unit’s work more generally.

The concept of data cleaning was challenging for trainees, whose first instinct was to assume any data point that at all conflicted with their personally accepted view must necessarily be an error. By working trainees through a process and set of standards for identifying errors and outliers, trainees were brought to a better understanding of the uses and limitations of the data cleaning process. However, of all modules taught, data cleaning may remain as the area in which ASU staff had the least confidence in their own work, even when their judgment and use of their abilities were generally sound. As depicted in Figure 13, as a group, ASU scored 4.1, well below the end-line goal of 5.5 However, it is fair to state that the ADCUS team underestimated the difficulty of imparting data cleaning knowledge to the ASU team. Individual scores ranged from 2.25 (aware of subject, but no technical skill) to 5.5.

Trainees were instructed primarily in basic analysis techniques, using frequencies, averages, percentages, and cross-tabulations to summarize survey data, producing these functions primarily through pivot tables but also occasionally using Excel formulas. While trainees were able to replicate procedures taught early in the trainings, it took considerably more time for them to grasp the more abstract concept of when and why to use each procedure. Further, trainees often lacked confidence in results they produced. These difficulties were largely overcome by the time of the NHor Survey, with trainees demonstrating a considerably increased degree of independent work and original thought. Essentially, ASU staff had to be pushed to accept that they must work and check their work independently, and that ADCUS coaches would not verify each step of the work for them, giving the team the responsibility for checking their own results. Some additional procedures were introduced towards the end of the program, including the use of quartiles, variance, standard deviation, and basic correlation. Training in these additional procedures was introductory, and ASU staff did not yet have a firm grasp on how and why to use them to a
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degree similar to the understanding they had of the original basic procedures they were trained on.

As a group, the ASU team did not meet the end-line goal of 5.5 for either analysis planning (5.2) or for actual data analysis (5.2). Yet, some individuals, and in particular Amruddin Sediqi (Focus Box 5), performed well on tasks related to this module.

Focus Box 5: Amruddin Sediqi: Data Analysis Best Performer

“I had never done any data analysis before starting the ADCUS program, but now I am able perform some basic functions very well. A good example to show how much I have learned regarding data analysis is the Horticulture National Survey in which we had more than 12,000 forms and I was able to do all the analysis with a lot of confidence.”

Amruddin Sediqi, the General Manager of Livestock Statistics within ASU, has been working at MAIL for 21 years. Through the ADCUS program, he developed a strong interest and capacity for data analysis, becoming the leading data analyst in the unit.

During the National Horticulture Survey, Amruddin took a leadership role in data analysis tasks, taking over responsibilities from the ADCUS coaches in training and supporting his colleagues. Amruddin admits that he still has much to learn, but is very proud of the progress he has made over two years and believes with each new experience he will gain more knowledge and confidence to make critical data-related decisions.

Moving forward, individuals such as Amruddin should be provided targeted trainings as a data analyst, so that they gain a specialization that can then be imparted to new recruits or to other colleagues in the unit. Yet, it is expected that several years of continuous training will be needed before staff such as Amruddin can be considered to be working at a professional level.

Module 5: Report Creation

Prior to the ADCUS program’s interventions, the ASU team had never drafted an agricultural data related report, despite being responsible for doing so. Therefore, the writing process was completely new to the team and they had no knowledge of descriptive and analytical writing, why developing a report outline is important, and how to develop an outline into a full report. Furthermore, ASU trainees had no effective knowledge of editing or the importance of developing a dissemination plan.

ASU demonstrated progress in report creation. During the pilot program, Altai professionals created the report outline, the report template, and instructed the trainees on how to extract the most pertinent data from Excel and to display the information in clear graphs in a Word document. Moreover, the focus of the pilot writing training was on descriptive writing and very little emphasis was placed on analytical writing. During National I trainees were
asked to take more ownership of activities by thinking critically about the data they wanted to extract and by organizing the data into report outlines and eventually to draft provincial reports. Accordingly, much more importance was placed on independent thought and individual creativity. Instead of giving the trainees a list of activities to complete, Altai professionals gave a certain degree of decision-making authority to the trainees during the report creation component. This trend continued in National II as the trainees were given even more autonomy, with Altai professionals only providing support when the trainees had questions they could not solve themselves. Finally, through the National Horticulture Survey writing process, the ASU trainees were nearly autonomous and were able to draft a full report without any interventions until the editing phase. Both the N2 and the NHort reports were of quality (with some support), and were sent to the DG of GDPPC for final approval before publication and dissemination.

Now at the end of the program, the ASMIS trainees can create a quality report outline and can develop the outline into a quality report. The graphs and tables are neatly presented and aesthetically pleasing. The written portions are logical and although mostly descriptive, the team made great attempts to infer the meaning of data. In conclusion, the ASMIS team can fully draft reports, and with some support, these reports can be published and widely disseminated to key stakeholders in the agriculture sector.

Despite great progress, the ASU did not meet the end-line goal of 5.5 in regards to this module. Trainee scores ranged from 2.25 to 5.5 on report writing and editing and from 2.25 to 6.5 on report formatting. Again, the ADCUS team underestimated the amount of training that would be needed to capacitate the ASU team to an adequate writing level. Yet, a few trainees stood out and in particular, Mohammad Omar who is highlighted in Focus Box 6.
Focus Box 6: Mohammad Omar - Report Writing Best Performer

“I have learned things and skills in the writing which I did not know before. Before the ADCUS program, I was involved in data collection and data entry but was never given the chance to analyze data and write a report. Now I can write a report, and I even know how to tailor a report that is useful for the Minister. Finally, I am really proud of being part of a team responsible for writing two reports ready for public dissemination. This is a great achievement.”

Omar graduated from Kabul University in 1981 with a BSc in Animal Science. He is currently tasked with managing all market related data, including on imported and exported agricultural commodities.

During ADCUS, Omar took a keen interest in report writing and stood out among his peers in creating quality agricultural data related reports. Omar has been tasked by Ehsan to take the lead on drafting report outlines and the reports themselves, and plays a large role in report editing and formatting. Omar is very thankful to the ADCUS team stating:

“From the knowledge, experience, and learning perspective, ADCUS was the best program I have had the privilege of being part of. I have attended many trainings, both in Afghanistan and abroad, but they did not compare to this learning opportunity. ADCUS was extraordinary.”

Moving forward, much more emphasis should be placed on building analytical capacity, as this is the next step to providing strategic support to decision makers. Furthermore, the team needs additional training on determining the most important pieces of information to create much more concise reports. As of now, too many small details are included in ASU-generated reports. As in regards to other areas of focus, individuals such as Omar should be selected for a specialization in writing and targeted trainings should be provided to enhance his writing capacity. However, even in his case, it is estimated it will take a few years of consistent report writing for Omar to be fully able to write quality reports autonomously.

**CAPACITY: SUB-NATIONAL LEVEL**

The ASMIS Directorate’s resources at the sub-national level remain limited, and efforts by ADCUS to build the capacity of existing DAIL staff who might help meet the Directorate’s needs were met with mixed results. No full-time positions exist at the provincial or district level for data collection. Until its closure, the FAAHM project funded two positions related to statistics in each province: (1) Statistics Officer to collect data, and (2) a Codan Radio Operator to transmit the data to MAIL in Kabul. However, these individuals worked at best on a part-time basis, as they had full-time positions in other directorates or units. Since the closure of the FAAHM project, these positions do not exist and the Ministry has 1 individual per province who has been responsible for managing MIS and has recently been nominally
included in agricultural statistics activities. In regards to data collection, MAIL has been relying on extension agents to collect information at the district level. Unfortunately, extension agents do not have the capacity (not trained enumerators), the time (other full-time commitments), or the impetus (not paid more money or provided operating funds) to perform this function adequately. The creation of an Agricultural Statistics Unit in each province, or at a minimum, in major provincial hubs (Balkh, Kandahar, Nangarhar, and Herat, with the potential for another hub to cover the northeast) is still very much needed.

While the ADCUS program worked with a DAIL Officer in each of the 34 provinces for each survey implemented, these individuals tended to change from time to time as the official counterparts had responsibilities with MIS and as such were not always available. When the DAIL counterpart was unavailable, the ADCUS team did its best to ensure that an applicable counterpart was chosen each time, such as a representative from the planning and program coordination unit, but this was not always possible. In this regard, building capacity at the sub-national level was difficult as training has not always been with the same individual in each province.

**NEEDS IDENTIFIED IN 2012**

1. **Adequate staffing in the provinces**
   
   As mentioned, this major need has yet to be addressed. In fact since 2012, the situation has worsened due to the closure of the FAO FAAHM program. Given that agricultural data comes from rural provincial centers, DAIL offices should be adequately staffed with competent full-time personnel, especially for data collection. At a minimum, each province needs three full-time staff to handle daily, weekly, and monthly collection of price data, seasonal management of the collection of production data by contracted enumerators, collection of weather data, and possible household surveys on a province-wide basis. The additional staff can alleviate the burden placed on current national level team members, and increase the quality of data produced.

2. **Training on the collection of production data**
   
   In 2012, it was identified that the ASU team had a firm grasp on the collection of price data, but would benefit greatly from a capacity building program “around the collection of, for example, prioritized horticulture commodities...and benefit from practical experience in collection, analysis, and report writing”. Moreover, the assessment led to the conclusion that the capacity building program should be “built around tashkeel staff members, not contractual standouts. Tashkeel staff members are less competent, but research suggests they are more likely to stay with the Ministry long-term”.

   The ADCUS program has started the process of addressing this issue with the implementation of the N1, N2, and NHort surveys, all of which primarily focused on the collection and analysis of production data. Each survey has also provided the ASU team with experience in designing and implementing surveys, as well as in analysis and report writing. Finally, the ADCUS program was built around tashkeel staff members, and this decision - although contentious at the time - has been vindicated as contractual staff members have mostly left MIS and even ASU.

   Having said this, there is still much room for improvement. Several more years of capacity building would be necessary to make a fully functional and professional statistics service. Second, the design of a professional sampling framework is necessary to truly select a sample from which production data can be extrapolated to the national level. This requires analyzing high-resolution remote sensing imagery and then sending enumerators to the field to verify or refute the number of farm households, farm size, and crops identified from the
images. Since this information is not available, ADCUS has been over-sampling to ensure that the results are statistically significant.

3. A primary system from which to input data collected, and training on the system
In 2012, it was determined that data was scribbled down on paper, sent to Kabul by phone, and then perhaps entered into an Excel spreadsheet for archiving. It was noticed that several Excel formats were being used by ASU, which made merging the data very difficult. In 2012, it was hoped that the online application/database created by MIS should be the storage facility for all data collected at MAIL, not just project related data.

However, as mentioned previously, MIS has struggled to make any progress in the full scale launch of the online application/database even for its own mandate, let alone adapting the mechanism for agricultural production and price data collected and analyzed by ASU. Therefore, a primary database for ASU data still does not exist, but the MIS database is still the best option.

In 2014, the ADCUS program funded and provided strategic support for a series of workshops to build awareness of the MIS online application/database, which included an element for brainstorming ideas on how to enhance its function and delivery to include agricultural price and production data. Hopefully this discussion will be taken further and the database will be further developed, so that ASU data can be safely stored and accessed from the MIS system. Second, the MIS Unit must train the ASU team on the use of the system for its efficient and effective use.

In the meantime, the ADCUS program trained the ASU team on a simple Excel template that was used for each of the surveys implemented through the program. It is recommended that the MIS Unit build new variables in its system based on the variables designed by the ADCUS program.

4. Sufficient infrastructure and equipment
In 2012, it was identified that ASMIS and its DAIL counterparts cannot “adequately perform their duties without sufficient infrastructure such as electricity, operational codan radios, internet, computers, and updated software. Moreover, data collectors in the field need transportation and fuel to collect data and mobile phones and phone credit to call in data to Kabul”.

This need still persists, but is not an obstacle unique to the statistics service. All Ministries suffer from inadequate infrastructure, equipment, and materials due to budget shortfalls, insecurity, and the remote setting of many provinces and districts in Afghanistan.

Recent developments in Afghanistan do provide opportunities to overcome some of these challenges. The introduction of 3G mobile services in 2013 allows for the use of relatively inexpensive mobile broadband internet via mobile data plans and dongles which eliminates the need for regular broadband internet services. With 3G, the user is not dependent on consistent electrification to use the internet to transmit data. Moreover, smart phones are much more widespread across the country in 2014 in comparison to 2012, which makes the option much safer than in the past. Smart phones can also be used for automated data collection, which eliminates manual data entry, as data inputted into the smart phone or tablet is automatically saved to the database. Automated data collection also helps ensure the credibility of results as GPS on the smart phones provides a real time update on the location of enumerators and provides the analyst mapping options of data collection efforts.
Focus Box 7: Open Data Kit System

**ODK: Automated data collection for improved efficiency, effectiveness and cost savings**

For the national horticulture survey, the ADCUS program piloted automated data collection in collaboration with MAIL and DAIL, via the Open Data Kit (ODK) system. ODK was chosen because it is open-source software and much easier to use than systems for purchase. The process was successful as MAIL and DAIL Officers in Kabul were fully trained on the use of ODK and the enumerators did not encounter any challenges in the field related to the technology, security, or otherwise. In addition, using ODK will prove more cost effective in the long term as thousands of pages of paper do not need to be printed and shipped per collection effort and manual data entry costs are eliminated.

As an example, medium quality smart phones were purchased for approximately 250 USD each, and 6 phones were needed to complete data collection in Kabul for a total start-up cost of 1,500 USD. Each phone was provided with a 30-day data plan for 20 USD each, for a total of 120 USD. In comparison, printing costs for Kabul province would have been approximately 150 USD, questionnaire shipping costs approximately 100 USD and data entry would take approximately 20 man days, at a total data entry cost of 600 USD (total 850 USD). Therefore, it only takes two surveys in Kabul Province to recover the start-up costs and provides 20 extra days to the team in order to conduct analysis and report writing.

5. **Basic computer training for DAIL staff (Word, Excel, Access)**

In 2012, research suggested that the Statistics Officers and Codan Radio Operators had no effective knowledge of basic software such as Microsoft Word and Excel. Therefore, they were not able to carry out the tasks related to their jobs. No data entry could be completed at the sub-national level as no training had been provided and as a consequence, data was usually sent to Kabul via phone calls.

Unfortunately, since no positions exist anymore, targeted training for DAIL Officers could not be provided. First, Agricultural Statistics units should be created and adequately staffed and then training can be offered to the right individuals.

6. **Expanded budget by MAIL, not external donors**

In 2012, ASU data collection efforts were almost entirely donor driven and donor funded. The EU was funding the majority of staff working for the ASU with supplements to their salaries. Research suggested this was not a sustainable model as funds could end at any time and more importantly, “payment for extra work is a counterproductive incentive for the establishment of a statistics service”. Moreover, it was identified that given the level of corruption in Afghanistan and low salaries offered by MAIL, the positions that offered top-ups from donors usually went to the wrong individuals. Placement was based on relationships instead of merit.

The ADCUS program worked hard to change the culture within the ASU. However, the program was not entirely successful in eliminating “payment for work.” Per diems are still paid to ASU counterparts, but at a drastically reduced rate from previous programs: 30 USD per full day of work as opposed to massive salary top-ups and per diems of nearly 60 USD while staff were in the field. Despite great effort, the ADCUS team was unable to convince ASU staff members to work for only their base MAIL salary, even with multi-year free
education. As such, a compromise was reached in which they would be paid for ADCUS related work on a monthly basis at reduced rate but only after work completed was compared against expectations. If the counterparts did not meet expectations (which increased over time), penalties were enforced. No payments were made to any member of the team that did not participate in the program (i.e. Statistics Director, Director General of GDPPC), and no individuals from outside the ASU team were shuffled into the Unit to benefit from the program.

The biggest complaint of the ADCUS program by ASU counterparts was the program’s payment structure. The ASU team constantly complained they were not getting paid enough, reminded the ADCUS trainers of how much they made under previous programs, and that as capacity improved and expectations increased, they should be paid more. Despite this challenge, the ADCUS team never deviated from its strict approach, but admits it was difficult at times to motivate the ASU team to carry out certain activities. For example, some ASU team members preferred to be enumerators over survey managers, as they saw the short-term monetary gain to collecting data in comparison to the much more challenging task of developing and leading a survey. While the ASU counterparts understood they would benefit much more in the long term through the ADCUS training program, they still prioritized “quick cash now” given the political and security uncertainty facing Afghanistan. In addition, with an average salary of approximately 150 USD per month, it was easy to understand why each of the counterparts was looking for ways to make extra income.

In conclusion, a lesson learned is that it is too simplistic to state that “payment for work” is counterproductive. Given the low salaries of tashkeel staff, it is unlikely that any program will be able to implement its activities without some incentives for the beneficiaries; or if they do, interest and participation will be limited. Having said this, enforcing a strict but fair payment mechanism in which beneficiaries are rewarded for hard work that promotes sustainability of the donor-funded effort, strikes a balance between the need for extra income for tashkeel staff and the effective implementation of programmatic activities. It is recommended that such a system is implemented by donor funded programs until the CBR process is available at the lower tashkeel levels or until GIRoA is able to drastically close the gap between salaries offered and the cost of living.

**7. Standardized testing for staff members**

In 2012, research found that regular testing was not in place to quantify improvements in ASU capacity. To address this need, the ADCUS program designed a PMP with key output and impact indicators, methods of measurement, and testing intervals for each of the core areas of the ADCUS capacity building program. Including this Final Report, the ADCUS team wrote 6 trainee progress reports to provide evidence of work accomplished and increases (or lack thereof) in ASU capacity. More importantly, the ADCUS team worked with the leadership of ASMIS to institutionalize the testing and grading, even if much of the scores were subjective in nature. Regular evaluations of staff performance across core areas were essential to the development of the Directorate.

**8. Trainings should be available to all staff, and opportunities should be based on merit, not relationships**

Key informant interviews (KII) in 2012 suggested that trainings offered were irregular and not all staff members got the opportunity to participate. For example, only some of the ASMIS staff members were part of the FAO FAAHM program, while most were left out. Those chosen to participate were selected based on their relationship with the Director of Statistics, not on merit.
The ADCUS program was offered to all tashkeel staff members within ASU, and each counterpart was treated the same regardless of position and relationships.

**Needs Identified Since 2012**

1. **Technical and managerial skills in middle management**

   It has been long-stated that the positions of both the Director of ASMIS and the Head of the ASU will go through the CBR process. However, it is unclear when or if this will occur, or if the current incumbents would retain their positions after this process.

   ASU and ASMIS as a whole require strong leadership in order to motivate and guide day-to-day activities. The office needs guidance in organizing its every day work, and needs someone with technical capacity to guide, assess, edit, and approve work completed. While this role should belong to the ASMIS director, it is likely that much of this work will fall to the Head of the ASU. Effort should be made to ensure that this individual is empowered within the directorate, and that the person in this position is given strong opportunities for professional skills development in the near term.

   The ASMIS director, in the meantime, should take a more active role at the policy and planning level, as well as in coordinating the various ASMIS units more closely. Activities proposed for the ASU require long-term planning and budgeting, both of which require considerable advocacy with MAIL and MoF leadership. The ASU will further rely on the MIS and GIS units in the collection (GIS-assisted sample frame), verification (GIS), and dissemination (MIS and GIS) of data within its mandate. In the long term, the director of ASMIS crucially must work with MAIL’s HR Directorate to ensure the development of the ASU is not hindered by indiscriminate recruiting policies.

2. **Build capacity to understand the need and purpose of data**

   A lesson learned through the implementation of the ADCUS program was that even if a team of competent statisticians existed at MAIL, the Ministry leadership and technical staff would not know what to do with the information provided to them. Both in terms of how data can inform policy, as well as how to channel funds to the appropriate sub-sectors for on-budget program implementation. As such, the ADCUS program brought in a policy expert to assist the Director General of GDPPC and other DGs in evaluating the needs of data within MAIL to then assist Ministry leadership in policies that can support the use of data and how data can be used to support the development of the sector.

   **Table 3: Data demand at the policy level**

<table>
<thead>
<tr>
<th>ADCUS Policy Advisor: Assessing and building demand for data among MAIL leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over the course of ADCUS Phase II programming, it became clear that one of the many sources of ASMIS’ lack of professional development over the years had been the low level of demand for their work at the Ministry. Policy makers had a poor opinion of the work produced through the directorate, and so little expectation that requests to the directorate would be fulfilled in any useful way. Further, it seemed that policy makers themselves had a limited view of how they might use data in their work. Most uses of agricultural data at the Ministry were for reports to Parliament or the Minister’s speeches, with very little use of data in actual decision-making.</td>
</tr>
<tr>
<td>In order to address this need, ADCUS Phase III included a Policy Advisor whose mandate was to assess the demand for, and use of data among, the various directorates at MAIL,</td>
</tr>
</tbody>
</table>
as well as work with policy makers to help them to understand how they could better use
data collected through ASMIS in their work.

The assessments conducted found that few directorates collected or had access to useful
data on their sector, and that most lacked any understanding of how they would use better
data in formulating policy were it available. The biggest exception to this was the
Directorate of Livestock and Animal Health, which collects a variety of data from
slaughterhouses, veterinary clinics, and customs houses. However, the methodology used
in collecting this data was by their own admission weak, and assistance from the ASU
could greatly improve the quality of what was collected, particularly were a full livestock
census and enumeration of the country’s slaughterhouses conducted.

It is important to note that, moving forward, momentum built within ASU through ADCUS
will only continue if real pressure is applied from the Ministry leadership for the stats
team to perform. This will require further work with MAIL leadership to ensure data is
requested, widely disseminated, and used in the formulation of MAIL policy.

3. Reorganization of the structure of the ASU
As seen in the organogram, the ASU is organized by the collection of data by sub-sector,
instead of by specialization. As it stands, an employee working within the livestock pillar
would be responsible for the collection and storage of livestock data only, instead of perhaps
using the individual’s strength, for example, in data entry across all collection areas:
market, livestock, farm household, and agricultural production. The ADCUS program
continuously evaluated the ASU team and made recommendations in a later section of this
report on how to reorganize the team based on management, data entry, data cleaning and
analysis, and report writing and editing. As the Directorate grows, subject matter
specializations may become more necessary. However, these technical specializations are
much better suited to the type and level of work ASU is currently able to produce.

1. MIS UNIT
The MIS Unit staff were not ADCUS counterparts and therefore did not benefit much from
ADCUS funding or capacity building initiatives, but the below analysis is important as the
unit’s functionality is vital to the storage and dissemination of all Ministry data, including
agricultural statistics produced by the ASU.

<table>
<thead>
<tr>
<th>Table 4: Key Facts and Figures of the MIS Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Responsibilities</strong></td>
</tr>
<tr>
<td>Manage an online application and database of information on completed, ongoing, and planned on-budget projects at MAIL; and provide GIS services at MAIL</td>
</tr>
<tr>
<td><strong>Key Outputs</strong></td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td><strong>Key Donor</strong></td>
</tr>
<tr>
<td>No donor. Team used to be funded by USAID ASA. As of 2012, the WB CBR program may fund the MIS division.</td>
</tr>
</tbody>
</table>
## Current State of Affairs

<table>
<thead>
<tr>
<th>Provincial Officers funded by EU/FAO-FAAHM</th>
<th>Directorate through an on-budget program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Still waiting for CBR funds or perhaps EU/Landell Mills</td>
<td></td>
</tr>
</tbody>
</table>

### Kabul Based Staff & Average Monthly Salary
- 12 staff members (contractual)  
  - 51,000 AFN (1,000 USD)
- 12 staff members  
  - 27,650 AFN ($465 USD)  
  *contractual: 1,500 - $3,000 USD  
  *tashkeel: average 150 USD

### Provincial Based Staff & Average Monthly Salary
- 34 staff members  
  - 100 USD stipend paid by FAO  
  *only 15-20% of time spent on MIS activities*  
  - 34 full-time provincial based staff members (1 per province)  
  - 8,000 AFN (140 USD)

### Typical Educational Background
- Kabul: International higher education - BSc at lower level, MSc at senior level in computer science, geology, political science, business administration
- Provinces: High school graduates
- Kabul: tashkeel staff typically have a BSc in an agriculture related discipline

### Institutional Capacity to Perform Function
- High at national level, low in provinces
- Average at national level, low in provinces

### Capacity: National Level

In comparison to 2012, the MIS Unit has taken a step backwards as capacity has dropped at the national level considerably. At that time, MIS had 12 contractual staff members, all of whom spoke fluent English and had effective knowledge and experience in relation to their respective positions, and most of whom had applicable graduate degrees from abroad. The lone major limitation identified in 2012 was the lack of agricultural specialists among the team. It was, and continues to be, very difficult to find employees with both an agriculture and MIS related background (database development and management, data entry, analysis, etc.). The same can be said in regards to statisticians with an agricultural background.

By 2014, the MIS team had lost 7 of its highly qualified contractual staff, and these positions had been filled with much less qualified tashkeel staff members. Unfortunately, the tashkeel staff members did not have the education, knowledge, or experience to perform their respective duties. Furthermore, the tashkeel team members were less willing to learn from their contractual colleagues given the vast differences in salaries. Tashkeel staff make an average of 150 USD per month, whereas contractual staff earn as much as 3,000 USD per month.

With a drop in qualified staff and with challenges stemming from disgruntled tashkeel staff, not much had been achieved since 2012. By the end of the ADCUS program, the online application/database had yet to be fully launched, awareness of the system was limited at MAIL and DAIL, and provincial based staff admitted they did not fully know how to use the system.

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8The exchange rate in June 2012 was $1 USD = 51.5 AFN. In June 2014, the exchange rate was $1 USD = 58 AFN.
System. In this regard, in 2014 the ADCUS program funded and provided strategic support to a series of MIS awareness workshops with senior leadership and operational staff at MAIL from all general directorates, directorates, units, and on-budget programs to bring attention to the system, build staff capacity at the national level on its function and delivery, and to brainstorm ideas to improve the system moving forward.

Focus Box 8: ADCUS funded MIS Awareness Campaign

Building MIS awareness at the national level

The ADCUS program funded and provided strategic support for the MIS awareness workshops which took place from April 4th to May 6th, 2014 for a total of 10 sessions. 191 participants, including 11 directors and key staff from development projects attended the workshops. The organization and implementation of these workshops stemmed from a recommendation by the original ASMIS awareness workshop led by the ADCUS program in May 2013. At that time, it was determined that very few key stakeholders within the Ministry were aware of the mandate and responsibilities of the ASMIS Directorate, including the MIS Unit.

The objectives of the workshops were to:

- Inform MAIL senior leadership and the operational staff about the MIS database functionality and delivery
- Brainstorm ideas on the further enrichment of the MIS system, including the integration of agricultural production and price data collected by ASMIS
- Share details/receive feedback on the MAIL Data Warehouse

Introduce the Paywand database and how it can be best used by MAIL and key stakeholders in the agriculture sector in Afghanistan

Despite a significant drop in capacity at the national level, replacing contractual staff with tashkeel staff was a step in the right direction in the long-term. While contractual staff were much more competent, seeking funding mechanisms and hiring such staff was short sighted and counterproductive. The recent collapse of the MIS Unit is case in point. External funding is never guaranteed to arrive on time (e.g. CBR process) and eventually ends which leads to staff leaving and a halt to all activities and outputs. It is much better to train tashkeel staff over several years to perform the job with incremental increases in salary as this approach is much more sustainable. Tashkeel staff tend to stay with the Ministry long term. While it is true that activities and outputs will be performed at a lower standard, at least they will be performed, and with coaching and support from external programs, improvements in capacity can be achieved.

CAPACITY: SUB-NATIONAL LEVEL

At the sub-national level, capacity remains very low. The MIS Officers in each province have at best a high school education, do not have an MIS background, are sometimes computer illiterate, do not speak English, and most have not been trained on how to use the system to fulfill their duties. In addition, the individual responsible is shared between the ASU and MIS, with the title of “Manager of Statistics and MIS”. As such, adequate staffing remains a major challenge at the sub-national level.
**MIS Needs Identified in 2012**

1. Implementation of a centralized database and dissemination vehicle
   In 2012, MIS had created the online application/database, but it had yet to launch the system, nor had staff been trained on how to use it. In 2014, the situation remained largely the same as the application/database had yet to be fully launched, and awareness and training (at national and sub-national levels) still needed to be achieved. The recent MIS awareness workshops funded and supported by ADCUS were a step in the right direction, but much more needed to be achieved in the near-term.

   Second, it was suggested in 2012 that all data (project related, agricultural production and price data, etc.) should be stored in a single centralized database and a decision should be made on a single dissemination platform for all Ministry data and publications. The Paywand online database created by the USAID funded Agricultural Credit Enhancement (ACE) program and transitioned to MIS was a good option in 2012, but MIS has not adequately updated the database and has not continued to produce the market briefs and trade flow reports. MIS should merge Paywand and other datasets with its online application/database and should continue to provide the data and reports to the public via the website.

2. Full-time MIS Officers in provinces
   As mentioned, the staffing situation has gotten worse since 2012. Statistics and MIS share one employee in each province. A dedicated and fully trained MIS Officer is needed in each province to enter data in the online application/database.

3. Fill vacancies in Kabul as soon as possible, but lower candidate profile expectations
   In 2012, research suggested that filling vacant positions had been slow because MIS was looking for individuals with a mix of MIS and agricultural backgrounds. However, MIS was never able to recruit more staff as funding ended and instead the unit lost most of its staff members. These individuals have been replaced by *tashekel* staff, but MIS is still looking to hire two more staff members.

   In September 2014, it is suggested that MIS lowers its standards even further and continues to hire *tashekel* staff members. Even though capacity is much lower, these individuals will stay with the Ministry long-term and a strategy for a capacity building program can be put in place over several years.

4. Internal buy-in for the MIS team and system
   In 2012, research suggested that other general directorates, directorates, and units were not aware of the mandate of MIS and the system it had built. Awareness campaigns and training were suggested. In addition, MIS was viewed as an “external body” because staff members were not permanent employees. Some key informants were concerned that the MIS model was not sustainable, and could inhibit internal buy-in for the team and system.

   Much of what was stated in 2012 was still true in 2014, or had become reality. Awareness was still lacking, and MIS has just recently taken steps to correct this challenge. Second, the MIS model was indeed unsustainable as the unit effectively collapsed and has only recently been able to recover to 2012 staffing levels, albeit with a majority of *tashekel* staff. In this regard, MIS is still lacking internal buy-in for its team and system and needs to continue to

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build awareness, train the Ministry’s staff, and work hard to change the perception of the unit.

5. Foster relationships with donors, implementers, international organizations, and NGOs operating in the agriculture sector

It was suggested in 2012 that if MIS wanted to become the principle source for agricultural data and information, it should create awareness of its unit and system with the greater agricultural community in Afghanistan. Through this awareness campaign, it could collect agricultural data collected by donors, implementing partners, NGOs, and international organizations to be inputted into its online application/database.

In 2014, this has yet to be achieved. No key informants interviewed outside of the Ministry were aware of MIS or its system. This should still be prioritized by the MIS Unit.

**NEEDS IDENTIFIED SINCE 2012**

1. Impetus to provide a finished product

The focus of the MIS Unit must be to finish building its online application/database, completely train staff at the national and sub-national levels on its function and deliveries, and to provide regular outputs that are useable for senior MAIL leadership. To date, MIS is ineffective as it does not produce anything useable on a regular basis or based on request. The DG of PPC should set and enforce a target date for the delivery of a fully functional database.

2. GIS Unit

Like the MIS Unit, capacitating the GIS Unit was not part of the ADCUS mandate. However, the overall capacity of MAIL to disseminate user-friendly agricultural data relies on close coordination between the ASU and GIS, so that at a minimum, remote sensing data can be used and maps can be created to support data collected by ASU on the ground.

Table 5: Key Facts and Figures of the GIS Unit

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsibilities</td>
<td>Identification and mapping of irrigation canals, forested areas, cultivated land, and mapping services by request to support MAIL activities and outputs</td>
<td>Same</td>
</tr>
<tr>
<td>Key Outputs</td>
<td>By request</td>
<td>Same</td>
</tr>
<tr>
<td>Key Donor</td>
<td>No donor; GIS used to be part of the MIS Unit</td>
<td>EU Landell Mills for 2 AgroMet positions and the FAO, WB and IFAD for the other two positions</td>
</tr>
<tr>
<td>Kabul Based Staff &amp; Average Monthly Salary</td>
<td>-2 staff members (contractual); -51,000 AFN (1,000 USD)</td>
<td>-3 staff members (contractual); -Unit Head 3,000 USD from WB and 2,000 USD from FAO</td>
</tr>
<tr>
<td>Provincial Based Staff &amp; Average Monthly Salary</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Typical Educational Background

| International Higher Education in Geology, Computer Science | Same |

Institutional Capacity to Perform Function

| High at National Level, Non-existent at Sub-National | Same |

### CAPACITY: NATIONAL AND SUB-NATIONAL LEVELS

As Afghanistan continues to catch-up with the rest of the world in terms of technology, its leaders demand modern means of service delivery. As such, GIS capabilities have become more of a priority at MAIL, which is evident with its split from MIS in 2013 to become its own unit within the ASMIS Directorate.

GIS capacity has increased since 2012, growing from 2 contractual staff members to 3, and they also have 3 interns who are going through intense training. Research suggests the Unit Head is somewhat qualified, as he received intense training from FAO through the 2012 Land Cover Map process and now has the technical capacity to update the atlas if needed. In this regard, he is able to build the capacity of his junior staff at a basic level.

The unit has adequate equipment including some new computers, software licenses for the main programs needed (ArcGIS desktop and server, ENVI), to comfortably complete many of the tasks under the unit’s responsibilities.

A limiting factor for the GIS team is the lack of satellite imagery that is available to them to perform their function. GIS has what is publicly available (e.g. through the USGS Afghanistan website) and data that is given to them by donation. Alcis, a private company, provided the GIS Unit with 2011 and 2013 imagery with 10cm to 1m resolution, which is excellent data but can quickly become outdated. In order to overcome this challenge, the Minister has sent a request to the Indian Embassy to ask for access on a regular basis to Indian satellite imagery.

A second limiting factor is the lack of awareness of the GIS Unit in regards to data that is available in the country. For example, the GIS Unit had begun working on irrigation structures mapping, but was unaware of International Relief and Development’s (IRD) involvement at the Ministry of Energy and Water’s (MoEW) irrigation taskforce and that comprehensive mapping of irrigation infrastructure was completed just a few years ago. The same can be said for the Louis Berger Group’s mapping on roads in 2011. The GIS Unit needs to conduct meetings with donors, implementers, NGOs, and international organizations to see what imagery they can collect, and to see what mapping already exists to reduce redundancies. The Famine Early Warning Network (FEWSNET), iMMAP, and the Afghanistan Information Management Services (AIMS) are a few other organizations that should be contacted.

The GIS Unit is underutilized, as neither ASMIS or MIS or even other directorates and units request mapping services from the team, even though senior MAIL leadership believes it is important. Demand for GIS services is lacking at MAIL because capacity is low across all silos at MAIL. Ministry staff do not request maps because they are uncertain as to what they would need a map for.

Finally, at the sub-national level, capacity is non-existent as there are no GIS Officers in any provinces. However, this is not a concern at this stage, as mapping can be done at the national level. The GIS team is in need of qualified enumerators, however, that they can
contract to validate or refute crops, forests, or canals that had been identified via satellite imagery.

**GIS Needs Identified in 2012**

Only two needs were identified for GIS in 2012, as the concept was still very new to the Ministry and therefore not prioritized, and GIS was not yet its own unit.

1. **Modern hardware and software**

   It was evident in 2012 that the GIS team was in great need of better equipment and software to complete its activities with quality. As mentioned, this need has somewhat been addressed. The team leader has a new laptop donated by JICA, the latest software, and a state of the art server which is fully capable of supporting the internal users at the Ministry. Yet, the rest of the GIS team have antiquated hardware which is unable to run the software. In addition, it would be beneficial if the GIS Unit had a license for ERDAS Imagine, which is very useful for crop identification.

2. **Readily available enumerators in each province**

   A major limitation of the GIS team was the lack of human resources needed on the ground to validate what was seen by satellite imagery. Trained enumerators were not available to GIS at that time, nor was the budget available.

   Due to the ADCUS program, the ASMIS Directorate has a roster of approximately 300 qualified enumerators, including enumerators residing in each province, which they could train specifically on the satellite images and then send them to the field to validate or refute the remote sensing data.

**GIS Needs Identified in 2014**

1. **Regular access to quality remote sensing imagery**

   The GIS Unit needs regular access to better satellite imagery and the Ministry is hopeful that a deal can be struck with the Indian Government. It is suggested that the Minister also requests satellite imagery from the American Government (Landsat) and the EU (SPOT) as backup options in case the request to the Indian Government is denied.

2. **Intermediate to advanced training for the Unit Head**

   The Head of the GIS Unit requested training on crop inventory and crop identification using multispectral and true color imagery. In addition, he requested training on multivariate on all functionalities. In response to this request, ADCUS agreed to hire a GIS consultant to build and configure their GIS data and infrastructure; to refresh current data holdings; and to provide mentoring support on crop identification and classification and advice on soil moisture and drought mapping (please see the Alcis GIS Capacity Development Report).

3. **Awareness and training workshops at MAIL**

   Much like MIS, GIS needs to design a series of workshops to promote its agenda and ultimately to build the capacity of senior and operational staff on how GIS can support each general directorate’s, directorate’s, or unit’s activities and outputs.
D. Data Collection Activities, Methodology, and Data Credibility

The purpose of this section is to examine if any change and/or progress has been made in regards to the data collection activities, methodology, and ultimately the credibility of data produced by the ASU. This section will not include an analysis of the MIS and GIS Units, as the focus of ADCUS has primarily been agricultural statistics.

Activities

Since 2012, the agricultural data collection responsibilities of the ASU have not changed. The ASU remains responsible for collecting agricultural price and production data at the district level in all 34 provinces in Afghanistan. In theory, collection activities include:

- Prices of locally produced wheat and imported flour daily
- Prices of locally produced wheat, imported flour, beef, veal, and mutton weekly
- Prices of 22-36 commodities\(^{10}\) monthly
- Production data on wheat and rice during harvest seasons (crop cutting)
- Production data estimates on other crops during harvest seasons (farm household interviews)
- Livestock data
- Rain and snowfall data

In reality, however, much of what is listed above has not been collected, stored, analyzed, or disseminated to senior MAIL officials or the greater agricultural community in Afghanistan. The reason being that ASU data collection efforts were largely donor driven. For example, the collection of daily, weekly, and monthly prices effectively stopped once the EU/FAO FAAHM project closed and no longer funded Statistics Officer positions in each province. The weekly and monthly price bulletins just restarted with the onset of a new EU funded program implemented by Landell Mills. Rain and snowfall data collection was driven by the Agro-meteorological (AgroMet) project funded by the United States Geological Survey (USGS), but since transition to MAIL in 2012, the collection of this data has also not been systematic, even though responsibilities have been given to the GIS Unit. The National Horticulture Survey was funded and supported by ADCUS, and certainly would not have been completed without USDA funds. Finally, the Ministry will need to find a donor or several donors to fund the planned livestock census.

Independently collected data by the ASU included the data used to compile the CSO Statistical Yearbook and the Agriculture Prospects Report (APR). This normally included prices and production of cereals and very rough estimates of other crops. The APR for 2013 was released in April 2014, approximately a year late. The current APR is being funded and supported by the EU Landell Mills program to hopefully have a more timely collection process and better quality output.

The challenges in regards to the above are very clear and have not changed since 2012: human and financial resources and capacity. As mentioned, the ASU relies on 12 staff at the central level, 1 shared staff member in each DAIL office (provincial level), and has zero staff at the district level. Extension workers are used, but are not trained enumerators and do not have the time or resources to fulfill collection activities. The ASU budget comes from

\(^{10}\) Fruits: apples, apricots, pears, peaches, plums, cherries, sweet cherries, pomegranates, mangos, figs, bananas, citrus, grapes, watermelon, melon; Vegetables: potatoes, tomatoes, eggplants, okra, onions, cauliflower, cucumber, peppers, squash, leek, spinach, coriander, carrots, cabbage, turnips, garlic; Others: local wheat, imported flour, beef, veal, and mutton. Also, MAIL does collect information on vegetable oil and petrol prices from time to time.
the operational budget and almost only covers salaries. Very little budget is earmarked for regular and potential ad-hoc collection activities. Finally, ASMIS capacity at the central level is improving but they still require a comprehensive capacity building program for years to come. At the provincial level, capacity of staff remains very poor.

In conclusion, it is unfair to believe that ASMIS can collect the data stated in its mandate given its capacity and budget to perform the activities. MAIL leadership should be realistic about what can be achieved by its staff, and donors should only focus on collection activities that are sustainable. The methodology behind the National Horticulture Survey for example, is to collect robust baseline data that can then be updated on a much smaller scale in years to come (largely by phone calls). This should be attainable if some of the Ministry’s development budget can be secured for data collection activities.

**Focus Box 9: Development Budget Request**

Politics will in place to secure funds from the development budget for the ASMIS Directorate

The DG of GDPPC realizes the importance of securing funds from the development budget to fund data collection needs on an annual basis, so that the Ministry is not dependent on off-budget funded programs that implement ad-hoc data collection efforts. As a start, the DG will request 400,000 USD which could be used to fund 1 comprehensive survey per year, a few small ad-hoc requests and key staffing positions in the provinces.

**DATA COLLECTION METHODOLOGY**

The collection of statistics is led by the ASMIS Directorate. However, each general directorate has its own policy development and statistical unit with a few staff employed at the national level to support data collection and the work of the ASMIS Directorate. Yet, coordination between the various pillars and ASMIS is clearly lacking, as no GDs request the assistance of ASMIS in the design and implementation of fieldwork. As such, ASMIS is often not involved in the collection of data that should fall under its mandate. For example, the Horticulture Directorate collects information related to horticulture crops, not ASMIS. The modus operandi of MAIL’s data collection system can therefore be considered complex as it involves a great number of officials from various Ministry entities at both the national and sub-national levels. Data collection should be
Collection activities that are performed by the ASU independent of donors are done to fulfill obligations to the CSO. The CSO distributes forms to MAIL expressing specific data collection needs and in turn these forms are sent to each DAIL office across the country. DAIL offices are dependent on data largely being collected by extension workers in each district where they are present. The use of extension workers has increased significantly since 2013 with the closure of the EU/FAO FAAHM project, as the previously funded positions at the provincial level no longer exist. Once the data has been collected at the district level, the data is compiled at DAIL and sent back to the responsible GD. Once it has been checked by the responsible entity, then it is submitted to the ASU. In theory the ASMIS Director is supposed to conduct a final check and then the data is sent to the CSO for publication.

**DATA CREDIBILITY**

While capacity has been built at the national level, abilities at the provincial and district levels remain very poor. Since provincial and district level employees are largely responsible for collection activities, it is fair to state the quality of agricultural data disseminated in the CSO Statistical Yearbook remains very poor.

Data collection methods are questionable at best. Extension workers are not trained enumerators and have full-time responsibilities. As such, they do not have the capacity or the time to adequately collect information. Moreover, they do not have a budget line for transportation or fuel even for their extension-related duties, and often cannot leave the district center as security will not permit.

In this regard, key informants suggest that district level extension workers often do not visit the bazaars to collect price data and certainly do not visit farms to collect production data. At best they make a few phone calls and at worst they slightly adjust data points reported from the previous week, month, or year. Therefore, the price and production data published by the CSO could be completely incorrect.

In addition, M&E activities are not performed at all by the ASU or the CSO. The data is taken at face value and no employee is responsible for checking the quality of the data, or if actual data collection has taken place. ASMIS should be responsible for data verification, and the GD of Monitoring and Evaluation should be responsible for M&E on ASMIS activities. This multi-layer approach would ensure there isn’t rampant fraud. To date, the GD of M&E is only responsible for M&E in regards to on-budget programs, not agricultural data. The GD’s mandate should be expanded to include M&E activities on agricultural data collected.

Finally, the general perception of the greater agricultural community in regards to the credibility of MAIL’s agricultural data is very poor. Almost all key informants used words such as “unreliable”, “inaccurate”, “outdated”, and “unusable” among others. To this end, even if the quality of MAIL data improves significantly, much work needs to be done in building the confidence of the key stakeholders. This will be an important point for the ADCUS program to consider when the national horticulture survey is finally published. A presentation will need to be organized with all key stakeholders to provide clear details on the data collection methodology and quality assurance plan that was put in place.

In conclusion, unless the data collection effort is donor funded and supported, the quality of data is very poor. The system of collection is complex and collection efforts are often not completed by the ASU. The data is often not collected at all, as district level employees are unqualified, and do not have the budget and time to perform collection activities. Reporting
mechanisms back to DAIL offices and MAIL are weak, usually completed by telephone. Finally, no verification or M&E is performed by anyone on the information collected. As such, quality can never be assured.

E. Conclusions

Progress is evident over the past two years. The capacity of the ASU team to design and manage comprehensive surveys as well as to conduct basic analysis and write reports has increased considerably. The GDPPC now has strong leadership with the understanding of the importance of statistics to support policy design and project implementation. In this regard, senior MAIL leadership now support the use of the ASU for managerial and intellectual components of surveys, DAIL Officers for management of fieldwork in their respective provinces, and the use of contracted enumerators. In addition, MAIL recognizes the need for innovative means to collect and ensure the credibility of data, such as through GIS and automated data systems. The GDPPC is confident that annual funds can be secured from the development budget to support this strategic shift. Finally, the donor-driven national horticulture survey, APR survey, and planned livestock census fill gaps in data needs.

While the above is certainly positive, now the Ministry needs to take ownership of the process to better ensure sustainability. Capacity built at the national level is only valuable if the ASMIS Directorate has leadership with the technical skills necessary to drive forward the process post-donor involvement. The leadership needs to improve the coordination between the different pillars (ASU, MIS and GIS) and better ensure staff retention, which will only happen through investing in tashkeel staff. The Ministry should think long term, and therefore invest in a long-term strategy to build capacity modeled after the ADCUS program. The approach should be to have very few contractual staff - perhaps the ASMIS Director and Unit Heads only - that develop a curriculum and implement a program over several years with regular testing intervals and incentives for active participation (e.g. promotion instead of payment). The Ministry can use part of the development budget, as the ADCUS program has proven it can be done inexpensively. Finally, the Ministry should refuse programs that look to place numerous highly paid contractual staff members at MAIL as this approach is expensive, falsely inflates capacity and outputs for a short period of time, and when the program ends, leads to a mass exodus of staff and a halt to outputs.

MAIL still lacks credible data due primarily to a lack of prioritization in which data to collect, substandard collection methods, non-existent M&E, inadequate staffing at the sub-national level, and a lack of budget to support positions and enumeration costs. The ASMIS Directorate does not have a clearly defined mandate to guide its data collection activities. In addition, MAIL still lacks a single database to safely store all data and a platform from which to disseminate information to the public. MAIL leadership recognizes these short falls, and is seeking 400,000 USD annually from the development budget to support the statistics agenda. Much impetus should be placed on securing these funds in the immediate term.
Accountability Framework
IV. ACCOUNTABILITY FRAMEWORK

A. Introduction

The purpose of this section is to evaluate the impact of the ADCUS capacity building program against the accountability framework created via the Phase I MAIL Data Capabilities Assessment. As detailed in the methodology section, the framework was created based on the evaluation and lessons learned from past agricultural data-specific programs, and it was deemed imperative that any future program, including ADCUS, should be held accountable against the 10-point framework.

B. Evaluation

Table 6: Evaluation Results Overview

<table>
<thead>
<tr>
<th>Phase I Accountability Framework</th>
<th>Phase II ADCUS Implementation Program Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the program sustainable?</td>
<td>Maybe - The political will is in place, the technical foundation has been built, but more capacity building is needed and financial guarantees from MAIL have yet to materialize. -ADCUS has developed a Roadmap for Success (next section) which clearly details the steps MAIL should take to ensure the sustainability of efforts.</td>
</tr>
<tr>
<td>Is it useful to MAIL?</td>
<td>Yes - The ASU team has more technical competence and managerial experience in conducting comprehensive national surveys. Many of the skills taught and responsibilities given were new to the ASU -The production data collected was based on request by MAIL.</td>
</tr>
<tr>
<td>Is primary data being collected, and if so, is it filling a gap?</td>
<td>Yes - Primary production data was collected across the country and no other organization at the time</td>
</tr>
<tr>
<td>Question</td>
<td>Response</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Are local language requirements being met?</td>
<td>Yes - All publications, training manuals, and other pertinent documents were available in English, Dari, and Pashto.</td>
</tr>
<tr>
<td>Is the database user-friendly in relation to the local context?</td>
<td>Yes - The ASMIS Directorate was trained on open-source software for entry and analysis.</td>
</tr>
<tr>
<td>Have effective dissemination mechanisms been created?</td>
<td>No - Dissemination was a core component of the ADCUS program, but unfortunately the ADCUS team did not plan for bottlenecks created at the Ministry for publication approval. By the end of the program, the Ministry had yet to approve several outputs for public dissemination.</td>
</tr>
<tr>
<td>Is the greater agricultural community aware of the effort?</td>
<td>Somewhat - Altai Consulting conducted meetings with key contacts in the greater agricultural community in Afghanistan to build awareness of the ADCUS program and forged relationships for the ASU with donors, implementers, NGOs, farmers, and a network of enumerators. Yet, the program should have invested in a communications team member and materials to ensure long-term memory of programmatic objectives, activities, and key outcomes.</td>
</tr>
<tr>
<td>Are infrastructure requirements minimized?</td>
<td>Yes - Expensive and highly technical equipment was not purchased to facilitate the program. Surveys were conducted without resource or technology-intensive methods or supplies to minimize costs and infrastructure demands.</td>
</tr>
<tr>
<td>Are MAIL staff members involved in the process?</td>
<td>Yes - The program was designed to center on MAIL-ASU participation throughout, but to increase ownership of activities as the program progressed.</td>
</tr>
<tr>
<td>Will the project be transitioned to MAIL successfully?</td>
<td>Yes - No transition necessary. MAIL was involved in the development and implementation of the program from the beginning and had complete ownership of activities by the end of the program</td>
</tr>
</tbody>
</table>

1. **Sustainability: Political Will, Financial Outlook, Technical Capacity**

Sustainability of efforts is the most important consideration for any donor-funded program, and ADCUS was designed based on ensuring programmatic activities could be sustained post-Altai involvement. First, the primary objective of the program was to build the technical capacity of the ASU *tashkeel* staff members as opposed to hiring numerous contractual staff members to perform the function. Even though capacity of *tashkeel* staff was by-and-large
much lower than contractual staff members at MAIL and as a result it was known that outputs would suffer in the short term, it was important to focus on the permanent staff as salary expectations were much lower and more affordable for the Ministry. This long-term thinking was proven successful, as each of the *tashkeel* trainees who started the program remained with the ADCUS program until the end, allowing for much capacity to have been built. Yet, as discussed in the previous section, none of the ASU trainees were professional statisticians, and will never reach that level unless technical capacity building continues for several years. However, this was known from the beginning of the program - that a solid technical foundation would be built - and that another donor, or ultimately MAIL, would need to prioritize agricultural data near the top of the agenda.

To assist this process, the ADCUS team (and USDA representatives) advocated for political attention on agricultural data with mid to senior MAIL leadership. This included presenting our findings several times to the Minister and his senior advisors at the Technical Advisory Team (TAT) meeting with the goal of building awareness of the importance of quality data for evidence-based policy and programmatic decision-making; placing a full-time Policy Advisor at MAIL in 2014 with a clear focus of building political will for the continuation of capacitating the ASU team; and developing a realistic and attainable roadmap for the sustainability of agricultural statistics at MAIL which is detailed in the next section. The results of building MAIL buy-in have been successful, as the DG of GDPPC has made the further development of the ASU a priority, has adopted the ADCUS methodology for all future data collection efforts (i.e. low-cost model: low dependence on technology, open-source software, focus on *tashkeel* staff), and is lobbying for internal GIRoA development funds (400,000 USD) to be earmarked for data collection activities and further capacity building on an annual basis.

However, political will does not necessarily translate into guaranteed funds and it was uncertain at the end of ADCUS if the development funds could be secured. As such, the ADCUS team has been coordinating closely with the EU funded Landell Mills program which has an agricultural statistics component and will be working with the ASU team until the end of 2016. The ADCUS team has shared strengths, weaknesses, and lessons learned from the ADCUS program and the Landell Mills team has used ADCUS literature to inform its work plan for the next three years. In conclusion, it is fair to state that by the end of ADCUS, the political will is in place, the technical capacity of *tashkeel* staff is more-or-less where it was expected to be, but that the financial outlook is still uncertain.

**Focus Box 10: ADCUS’ Influence on Policy**

*The ADCUS Program has influenced policy at MAIL:* The Ministry has historically preferred using extension workers for data collection given their presence in nearly every district of the country. However, extension workers are not trained enumerators, do not have the resources needed available to them (motorcycles, fuel, mobile scratch cards, etc.), and do not have the impetus to collect credible information as there is no monetary incentive. Additionally, extension workers have their own responsibilities that comprise a full-time job, leaving little time for data collection. As such, while it is cheaper to use extension workers, the result is data that is highly inaccurate and unusable for policy and program design.

The ADCUS program has therefore worked hard to change the mindset of senior MAIL leadership to use contracted enumerators for comprehensive surveys. Through the success of ADCUS implemented surveys, the DG of GDPPC now agrees and has advocated for the use of contracted enumerators with the Minister. The DG is asking for funds from the...
development budget to cover the costs of contracting enumerators. Second, the DG agrees with the structure used by ADCUS: that the ASU central staff should be responsible for the thought-intensive components - survey design, management, and analysis and report writing.

2. **Usefulness of Data Efforts**

A major component of the *Phase I MAIL Data Capabilities Assessment* was to assess past and on-going agricultural data-specific projects. Through this process it was determined that for the exception of wheat and rice, a considerable gap existed in the collection of agricultural production data. As a result, the surveys organized by ADCUS - although first and foremost for practical training purposes - would focus on agricultural production on a priority list of crops identified by the ASU. Unfortunately, the ASU was unable to produce a list, and therefore data was collected on an exhaustive list of crops for the first three survey iterations (pilot, N1, and N2, with the crop list for each informed by results from the previous survey) until the Ministry asked that the ADCUS program fund a comprehensive national horticulture survey (more than 12,000 farmer interviews in 34 provinces, 80% of districts) to be used as baseline data of horticulture commodity production, among other variables. MAIL and donors consider ADCUS produced data to be the best available on production, to have filled a gap in available data, and will be used by the Ministry as a benchmark for future collection efforts.

Second, and more importantly, the data collection efforts have been invaluable in building the capacity of the ASU team to design and manage a survey, and to lead the analytical components such as data analysis and report writing. The overarching usefulness is the skills imparted to *tashkeel* staff within the ASU.

3. **Data Sources: Primary vs. Secondary**

It is common for donor-funded agricultural data collection programs to be of similar design and to produce the exact same outputs. For example, at the time of the *Data Capabilities Assessment MAIL*, Roshan, and WFP, among others, were collecting and publishing market related data on the same commodities from the same provinces and districts. This wasteful spending encouraged the ADCUS program not to focus on commodity prices at all, and instead focus data collection on agricultural production to fill a gap. The market data produced by other initiatives has been used by the ADCUS team for analysis when applicable to the program.

4. **Language Requirements: Dari, Pashto, and English**

An often-overlooked variable is the language options attached to training materials, databases, websites, and publications. All materials and data should be available at a minimum in Dari and Pashto to satisfy local needs, as well as English for international policy-makers to access and make data-driven decisions.

All ADCUS produced training manuals, student handouts, databases, and outputs were available in Dari and Pashto, and all key outputs were also produced in English (e.g. National Horticulture Survey). The ASU can easily use and update the materials and tools provided to them to train future recruits, and senior MAIL leadership can use the key outputs to make evidence-based decisions.
5. **User-Friendliness**

The ADCUS training materials and database were developed with local capacity in mind. The training materials and student handouts meticulously detailed each training component step-by-step, the time that should be spent on each subject, classroom exercises, and potential homework assignments. The software chosen for data entry shell creation was EpiData as it is free and relatively easy to use, and all data analysis was completed in Excel to capitalize on existing familiarity and avoid expensive licensing fees with software such as SPSS. The materials and databases could easily be maintained by the ASU, and the data could easily be merged with other datasets or into other databases (e.g. MIS developed database).

6. **Outputs and Dissemination Mechanisms**

Unfortunately the ADCUS program did not meet its goal to disseminate outputs to key stakeholders in the agriculture sector and to the greater public, despite training the ASU on dissemination best practices. The reason for this was twofold. First, a key lesson learned from previous programs working with the ASU was that the programmatic staff wrote the reports, and therefore no skills were imparted to the tashkeel staff members. Once the program ended, so too did the outputs as the ASU team had zero capacity to write agricultural data reports. As such, a key part of the ADCUS program was to ensure that the ASU had ownership of the outputs and that nothing would be disseminated unless the ASU was responsible for the report produced. For its part, the ADCUS team was responsible for coaching and supporting the ASU through several drafts of the reports, but never to complete the job for the unit. Therefore, early in the program (pilot and N1 reports) and despite great effort, the outputs produced were not good enough for public dissemination. Later in the program and after more knowledge and experience (N2 and NHort), the outputs were much better and deemed good enough for dissemination. Yet, the Ministry has yet to approve the reports and remained uncertain if it ever will. This was not due to a lack of quality, but because of the slow pace at which the Ministry operates. Data outputs from several years ago were still in draft form (e.g. 2012 FAO Land Cover Map). As a result, the second reason for a lack of publicly available outputs was because of the bottleneck encountered at the Ministry for approving dissemination of reports.

7. **Awareness and Marketing**

The ADCUS team worked hard to build awareness of its program, including hosting workshops with key stakeholders as well as presenting at the TAT meeting, the US Embassy Agriculture Coordination Meeting, and at the EU Agriculture Launch Event. In addition, the ADCUS team regularly met with key stakeholders such as donors, implementing partners, international organizations and NGOs.

A key lesson learnt, however, was that ADCUS should have done a much better job of marketing the program through brochures, pamphlets, posters, and even perhaps a website. Although meetings and workshops brought short-term attention, the ADCUS team noticed that key stakeholders quickly forgot the programmatic objectives and activities and the ADCUS story had to be explained once again at a later meeting. Investing in a Communication Officer and materials would be a necessary cost to better ensure awareness of the program and ultimately to bring attention to the goals and continuation of the initiative.

8. **Infrastructure Needs**

Despite constant requests, the ADCUS program did not invest in hardware, software, or any other materials that could not be sustained by MAIL post-ADCUS. While the Ministry was
interested in having modern infrastructure for data collection and analysis purposes, it has been repeatedly demonstrated that could not operate and maintain the assets post-donor involvement. Therefore, fuel was never put into Ministry cars, computers were never purchased for the trainees, Internet was never provided, only freeware was used as platforms for data entry, and Microsoft Office programs already found on existing Ministry computers were used for data analysis and report writing. The only modern technology introduced were smartphones used for automated data entry mechanisms during NHort as a pilot, as it was deemed a long-term cost-saving measure for the Ministry.

9. **COLLABORATION WITH MAIL**

As discussed, the very basis of the ADCUS program was to capacitate the ASU *taskeel* staff and to have the Ministry take more ownership of activities as the program progressed through the different surveys and trainee knowledge and experience increased. As such, collaboration with MAIL was at the very heart of the program.

10. **INTEGRATION/TRANSITION PLAN TO MAIL**

Learning from previous programs, the ADCUS program was developed without a need for transition and/or integration into MAIL on-budget programs. The program used existing resources (*taskeel* staff and freeware), developed the program in tandem with MAIL, and focused on capacity building to better ensure sustainability of efforts. Off-budget contractual staff members and expensive equipment did not need to be absorbed by the Ministry. MAIL only has to find limited budget to fund annual data collection needs.

C. **Conclusions**

The ADCUS program successfully delivered on 7 components of the accountability framework. The data and capacity program was very useful to MAIL and filled a sector gap via the collection of primary production data. The materials, database and outputs met language requirements, were user-friendly given the local context, and infrastructure requirements were minimized and investments were only made when the ADCUS team was sure the Ministry could sustain the costs post-funding. Finally, the program was designed in tandem with MAIL and used existing MAIL resources, so collaboration was maximized and the need for a program transition/integration plan to the Ministry was removed.

The ADCUS team admits that it could not meet its output dissemination goals and should have done a better job in regards to communications. In addition sustainability of efforts remained in question as the Ministry was yet to secure the necessary budget to perform annual data collection activities and to further capacitate the ASU staff. Despite this, it appeared the political will was in place to drive forward the statistics agenda, as the DG of GDPPC believed in the ADCUS model, was lobbying hard for further political attention and to secure some funds to meet the unit’s mandate.
Key Lessons Learned
V. Key Lessons Learned

A. Introduction

The purpose of this section is to compile key lessons learned throughout the ADCUS program so that future programs are better informed. Building data-related capacity at a civil service in Afghanistan is a difficult endeavor. This section along with the 10-point accountability framework should be used as a reference. A number of factors, sometimes well beyond the scope of work, must be taken into consideration to implement an efficient and effective program.

B. Key Lessons

1. ADCUS Benefitted from a Design that Began with Thorough Research

A major criticism of many donor-funded programs is that they are conceived in Washington DC or Brussels by individuals that have little experience in Afghanistan and therefore do not truly understand the context. Even if the relevant donor agency developed the program in-country, the individuals working for these government entities often have heavy security restrictions and do not see much beyond their embassy walls. Once the implementing partner arrives in Kabul, it can take upwards of a year before the team has an actionable plan in place. When the program is, for example, only three years long, using 1/3 to develop programmatic activities is inefficient and ineffective.

Donors should not issue Requests for Proposals (RFPs) until they have first funded a study to determine the relevance of the concept, the history and current state of all donor programming in the sector, and whether the objectives and expected outcomes are feasible and in the best interest of the Afghan Ministry in question.

A major contributing factor to the success of the ADCUS program was the 2012 Phase I MAIL Data Capabilities Assessment in which MAIL and DAIL capacity to conduct data-related activities was tested and an analysis of past and ongoing agricultural programs was conducted in order to design an evidence-based program. This research proved to be the best course of action, as analysis concluded that the ADCUS program should differ significantly from the original concept. The overarching purpose of the initial USDA idea was to collect quality data for MAIL and assist the MIS Unit in developing a sophisticated mechanism to store and disseminate the information. USDA was more interested in credible data than capacity building and preferred that the implementing partner worked with the contractual MIS Unit as opposed to the tashkeel staff at the ASU. Hence, the name “Agricultural Data Collection and Utilization System” did not reflect the actual strategic objective of the program: capacity building of tashkeel staff working for the Agricultural Statistics Unit. Analysis found that prioritizing capacity building over data collection and tashkeel staff over contractual staff was a more sustainable model. It became well documented that the research was proven right, as most contractual staff have left the Ministry and the ASU team now have a solid foundation of skills that has allowed them to design and manage surveys, as well as to conduct the intellectual components such as data analysis and report writing.

This is a crucial lesson learned, as had the assessment not been completed, funds would have been used inefficiently and the program would have had much less impact. Considering tax payer dollars are at stake, donors should insist that comprehensive research is
commissioned prior to implementation so that a quality program can be designed and the chance of redundancy is mitigated. Such research is not expensive in the grand scheme of a major program, as a comprehensive study can be completed for less than 200,000 USD.

2. **THE ADCUS PROGRAM WAS DESIGNED FOR THE LONG-TERM GROWTH OF THE BENEFICIARIES, NOT FOR THE SHORT-TERM GAIN OF DONORS**

Program concepts are designed based on a critical gap identified in the sector by the donor agency, but the planned objectives and expected outcomes are often more useful for the donors than the intended beneficiaries. In the case of ADCUS, the original concept of collecting quality data for MAIL would have certainly assisted the donors and even the Ministry for evidence-based strategic planning in the short term but would not have been in the best interest of MAIL in the long term. Without a focus on capacity building, once the program ended, so too would all of the key outputs. The ADCUS approach of starting the process of building a core team of competent staff - even though this meant lower quality outputs at the beginning of the project - was in the best interest of the Ministry. It is imperative that development actors think about sustainability first, even if this means it will take some time before credible data is produced.

3. **ADCUS PARTNERED WITH MAIL IN PROGRAM DESIGN AND IMPLEMENTATION**

Related to point 2, donors should not impose capacity building projects on Ministries, but rather collaborate with key representatives to design a program that both sides consider in the best interest of the intended direct and indirect beneficiaries. This thought exercise builds trust and confidence in the program before it begins and instills a sense of ownership from the Ministry’s perspective. This process is critical for the overall success of the program, as the Ministry must trust and respect the donor and implementing partner if anything is to be achieved. Treating the Ministry as a partner in the program design and throughout implementation as opposed to a subordinate was a key component of ADCUS and this should be emulated by future programs.

4. **ADCUS INVESTED IN EXISTING RESOURCES AND INFRASTRUCTURE, AND AVOIDED DIFFICULT AND COSTLY TRANSITIONS OF PROGRAM STAFF, ASSETS AND ACTIVITIES**

A common occurrence is for off-budget programs to be transitioned to Ministries near the end of implementation as a mechanism for sustainability. This approach, in most cases, does not work as the cost of continuing the activities, hiring contractual staff and maintaining expensive assets is far too great for Ministries in Afghanistan to absorb. In most cases, the Ministry does not retain the staff, does not continue the activities, and the assets are used until they break, at which time they are never fixed.

A much better approach is to use existing resources at the Ministry, such as *taskeel* staff at MAIL. Most programs do not like to use *taskeel* staff because their capacity is much lower and programs are typically designed with the use of sophisticated assets, such as a custom made database with a licensing fee, which are considered beyond the capacity of *taskeel* staff and the budget of the Ministry. While this looks good in the short-run, it is not sustainable. A much better approach is to use what the Ministry can afford, which is the staff they currently employ, open-sourced software, and to implement activities that are realistic in terms of capacity and cost. While the outputs will be less impressive in the beginning, as capacity grows, the outputs will gradually improve and there is a much better chance of the activities being continued post-program.
Furthermore, no assets should be purchased for the Ministry that have been deemed unsustainable: any item that the Ministry cannot fund post-program. This includes purchases such as cars, high speed internet, new laptops, and a dedicated server, among others.

5. **ADCUS FOUND INCENTIVES FOR BENEFICIARIES WERE NECESSARY, BUT THE PAYMENT SCHEME WAS IN-LINE WITH OFFICIAL MINISTRY AMOUNTS**

A major lesson learned through the implementation of the ADCUS program was that it is too simplistic to state that monetary incentives for beneficiaries are counterproductive. Civil servants in Afghanistan receive very low salaries, if at all. It is very unlikely that any program will be able to effectively implement its activities without some form of payment for the beneficiaries.

Instead of outright refusing, which will lead to poor participation in the program and therefore less overall impact, enforcing a fair but strict payment mechanism in which beneficiaries are rewarded for hard work is the right approach. Doing so strikes a balance between the need for extra income for staff members and the effective implementation of programmatic activities. Beneficiary work ethic and outputs should be monitored closely and incentives should only be paid if the staff member meets expectations, which will increase as the program progresses. This incentive program is needed until the government is able to close the drastic gap between salaries offered and the cost of living\(^\text{11}\).

6. **PLACEMENT OF FULL-TIME STAFF AT MAIL WAS CRITICAL FOR ADCUS’ SUCCESS**

Having a full-time presence at the Ministry was necessary to build and foster relationships, build and maintain awareness of the program, to mitigate slack between activities, increase efficiency, and to continuously monitor and evaluate counterparts.

ADCUS did not have any full-time staff at MAIL until 2014, which was a mistake, as by 2013 a number of misperceptions emerged regarding the purpose of the program and its objectives. Once the ADCUS Statistics Advisor and Policy Advisor were stationed at MAIL, the program’s relationship with key personnel at the Ministry improved greatly, and any challenges or issues could be addressed immediately.

7. **DETERMINING THE DEMAND FOR AND UNDERSTANDING THE USE OF DATA WAS JUST AS IMPORTANT AS BUILDING A SUPPLY OF COMPETENT STATISTICIANS**

An incorrect assumption by the ADCUS team was that if senior Ministry leadership was presented with credible data in a user-friendly manner, they would understand what to do with it and would have the impetus to act. Unfortunately, this is often not the case, and much time and effort should be focused on determining the demand for data and assisting leaders in using the information for quick wins. This includes understanding current policies and procedures for developing on-budget projects and how finances can be secured to address a gap identified by the data collected, and how these mechanisms can be improved. Furthermore, it requires a qualified person to capacitate senior leaders on the importance of acting quickly, even for small initiatives, so that interviewees realize the benefit of participating in surveys. In 2014, the ADCUS program placed a Policy Advisor at MAIL to assist

\[^{11}\] Countries that receive a lot of aid, such as Afghanistan, have a grossly inflated cost of living due to the presence of internationals. Government salaries, however, cannot compensate for this factor, as upwards of 70% of aid is off-budget and as such does not reach lower income citizens.
Key Lessons Learned

in this process. However, it is unfortunate this gap was not identified sooner, and any future program should take this into consideration from the beginning of implementation.

8. **ADCUS EVENTUALLY FOUND A BALANCE BETWEEN BUILDING CAPACITY AND PRODUCING TANGIBLE OUTPUTS**

As discussed, the ADCUS program did not produce a publicly available data output until the National II Survey. The Pilot and National I Survey reports were never released, as they were not of sufficient quality for dissemination. Learning from previous programs, a key component of the ADCUS methodology was to ensure that any output produced by the ASU should be written by *taskheel* staff, and not by the ADCUS team. The ADCUS team was to coach and support the ASU through several versions of the reports, but in the end, the actual changes and final touches had to be completed by the ASU. While this methodology was sound, it meant that the writing process was extremely time consuming and at some point, a final deadline had to be set regardless of the quality of the report at that time so that the next activities could begin. Unfortunately, the Pilot and N1 reports did not meet expectations and could not be released. This hurt the image of ADCUS, as senior MAIL leadership wanted the reports, and inquired as to why no outputs had been produced.

A lesson learned is that if a survey takes place, even if primarily for practical training, a final report must be produced for public dissemination regardless of the time it takes to work with the Ministry staff to improve the quality of the output.

9. **DEVELOPING AND IMPLEMENTING A STRONG COMMUNICATIONS PLAN IS CRUCIAL TO BUILDING AWARENESS AND THEREFORE PERCEIVED SUCCESS**

The ADCUS team did not budget for much communications related activities, as it was deemed of greater impact to use funds for capacity building initiatives. Instead of investing in a website, pamphlets, and monthly program bulletins, the ADCUS team held countless meetings and organized workshops to build awareness. Yet, in hindsight, more funds should have been dedicated to communications, as regardless of the number of meetings and workshops, the feedback the ADCUS team received was that there was no website and no posters around the Ministry that clearly outline the purpose, objectives, and key outcomes of the program. This was a major lesson learned, as the impact of ADCUS was somewhat hurt by a lack of a quality communications plan, as some organizations and individuals were unaware of the program’s achievements, as in environments such as Afghanistan staff turnover at the expat level was high. It is suggested that at a minimum, a website should be created, and monthly bulletins should be sent to key stakeholders to build and maintain awareness of the program.

10. **ADCUS DEVELOPED AND USED A FAIR PMP TO HOLD THE PROGRAM ACCOUNTABLE AND TO MEASURE IMPACT**

Donors and implementing partners often set unrealistic goals for capacity building programs, and/or only measure outputs instead of impact. For example, it is not uncommon to read “by the end of the 3 year program, the Ministry will have a professional statistics service”, when in reality the statistics team is several years from reaching such a status. Setting goals like this is to the detriment of the program, as it is unattainable. Second, common indicators include “# of beneficiaries trained on quantitative tools design”, but what is really valuable is not the number but the actual knowledge and experience imparted to the beneficiaries. Instead, a better indicator would be “# of beneficiaries that scored 80% or higher on the quantitative tools design practical test’. Then, this test should be administered on regular
intervals to the beneficiaries to determine increases in capacity, and therefore, to determine the true impact of the program.

C. Conclusions

Future programs focused on building data-related capacity at a Ministry in Afghanistan should take into consideration 10 key lessons learned from the ADCUS program. A quality program cannot be designed without first conducting comprehensive research to determine if the concept fits the context and the needs of the beneficiaries. Furthermore, the Ministry should be involved in the program design phase to build trust and confidence in the program and to instill a sense of ownership of the process for the beneficiaries. The program must be designed with the long-term sustainability of efforts in mind, even if this means sacrificing nice data outputs at the beginning of the program. Yet, implementers must strike a balance between building capacity and quality outputs, as both are essential to the success of the program.

It is much more sustainable to invest in existing resources such as permanent staff, and to only implement activities and purchase assets that the Ministry can afford post-program. Transition plans to Ministries near the end of programs rarely work, and should be avoided.

Beneficiary incentives are likely unavoidable in the current environment, but a strict payment scheme can be put in place that encourages hard work and results.

Two full-time staff should be placed at the Ministry throughout the program, with one focused on building the supply of competent statisticians and the other working at a macro policy level to determine demand and to better ensure data collected is used by senior leadership.

Developing a strong communications plan is recommended and worth the expense, as it brings much attention to the program’s purpose, objectives, and achievements. Given high turnover of positions in fragile states such as Afghanistan, marketing the program is essential. Finally, a fair and attainable PMP should be developed, that focuses on true impact indicators as opposed to the number of trainees.
VI. ROADMAP FOR SUCCESS

A. Introduction

The purpose of this section is to provide recommendations to MAIL on an action plan that should be implemented over the next ten years to build a sound and sustainable agricultural statistics team that produce accurate, useful, regular, and available information. The section is organized chronologically, with specific steps to take in the immediate, short-, medium-, and long-term. Much more detail is provided for immediate-term actions, as these will set the tone for the unit for years to come. Actions include suggestions on re-tooling the mandate and the structure of the ASU, specific job descriptions for positions within the department to meet Ministry data needs and to enhance workforce optimization. In addition, this section will detail the estimated financial commitment needed to fund the activities and positions suggested. Finally, recommendations will be made on mechanisms to improve coordination between the different ASMIS silos (ASU, GIS, and MIS) and therefore how new technologies can be introduced and how a single database can be used to disseminate MAIL data both internally and externally.

B. Immediate Term: 1394

In late 2014 (1393) and in 2015 (1394), MAIL should focus on planning for the sustainable development of the unit. This includes clearly defining the data the ASU will collect and the outputs it will produce (mandate); re-structuring the department/positions to efficiently and effectively meet these demands; writing specific job descriptions for each position to hold staff accountable; developing a quality assurance plan to ensure the quality of data; producing a timeline that includes when activities can realistically be phased into operations; and forecasting the budget needed to sustain activities and outputs. While it is likely that it will take several years before the department is able to fully meet the mandate detailed below, the actions provide the end goal which will guide long-term growth.

1. ACTION 1: MANDATE

The ASU does not have an official mandate, and the unofficial understanding of its role is fairly vague. As written previously, the ASU is responsible for the collection, analysis and publication of agricultural, livestock, market, snow and rainfall data. No details are provided on collection periods, outputs required, or indicators that should be monitored on a consistent basis. As such, a revised unit mandate is needed that details specific outputs and indicators. The mandate should include specific intervals for collection and reporting and should include a phased approach for the ASU to meet all required data needs over the course of 10 years.

Table 7: Draft ASMIS-ASU Revised Mandate

<table>
<thead>
<tr>
<th>Draft ASMIS-ASU Revised Mandate</th>
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</thead>
<tbody>
<tr>
<td>ASU within the ASMIS Directorate is responsible for collecting, analyzing, and disseminating data related to agriculture and livestock production and market prices. Data related to irrigated land, forestry, and snow and rainfall data falls under the mandate of GIS and as such is not part of this document.</td>
</tr>
</tbody>
</table>

To enable the ASU to fulfill its responsibilities, the Ministry will provide all necessary resources for their implementation in a timely manner, agreeing on the necessary level.
and timing of funding and staffing a minimum of four months prior to the launch of each activity (see Action 8 Financial Forecast).

To ensure the preparedness of the ASU, this mandate will come into effect through a phased approach, with activity-related trainings and hiring taking place to support activities as they are implemented (see Action 7 Timeline of Activities and Outputs).

Specifically, the ASU will be responsible for:

**Agriculture Census** - To be conducted once every 10 years. Data must be collected and reported in years ending in 0 (Afghan Calendar, next Census in year 1400 [2021]). Data collection will be phased throughout the year to match agriculture cycles in Afghanistan’s various regions. Given the scale of the census, contracted enumerators hired by the ASU will be managed by DAIL at the provincial level and the ASU will be responsible for overall management.

Indicators will include, but may not be limited to:

- Annual production of key crops
- Total cultivated land area, enumerated and mapped
- Usage of selected agriculture inputs and machinery
- Vital farm household data
- Marketing patterns
- Crop varieties

**Cereals Update** - To be conducted annually, except for years in which the Agriculture Census takes place. The Cereals Update will combine a primarily phone-based survey (in geographic regions where this is possible, to be defined as districts where 75% or more of respondents in the Agriculture Census reported a mobile number) of interviewees selected from the panel created through the Agriculture Census with a small ground-truthing survey conducted in cooperation with each DAIL office and contracted enumerators. Data collection will take place on a monthly basis during the growing season in each region. A full report will be produced annually, with quarterly reports produced and distributed on a web platform in cooperation with the MIS and GIS Departments.

Indicators will include, but may not be limited to:

- Production of key cereal crops
- Cultivated land area
- Timing of cultivation
- Usage of selected agriculture inputs and machinery
- Marketing patterns

**Horticulture Update** - To be conducted annually, except for years in which the Agriculture Census takes place. The Horticulture Update will combine a primarily phone-based survey (in geographic regions where this is possible, to be defined as districts where 75% or more of respondents in the Agriculture Census reported a mobile number) of interviewees selected from the panel created through the Agriculture Census with a small ground-truthing survey conducted in cooperation with each DAIL office. Data collection will take place on a monthly basis during the growing season in each region. A full report will be produced annually, with quarterly reports produced and distributed on a web platform in cooperation with the MIS and GIS Departments.

Indicators will include, but may not be limited to:
– Production of key horticulture and industrial crops
– Cultivated land area
– Timing of cultivation
– Usage of selected agriculture inputs and machinery
– Marketing patterns

Livestock Census - To be conducted once every 10 years. Data must be collected and reported in years ending in 5 (next census in year 1395 / 2016).

Indicators will include, but may not be limited to:
– Livestock ownership, both on-farm and among nomadic and semi-nomadic populations
– Data by species and breed
– Information on breeding and marketing patterns
– A full enumeration of the country’s slaughterhouses, butcher shops, and veterinary clinics
– Data on animal health and availability of veterinary services
– Marketing patterns

Livestock Update - To be conducted annually, except for years in which the Livestock Census takes place. The Livestock Update will be conducted in close cooperation with the Directorate of Livestock and Animal Health, and will incorporate monthly surveys of a sample of slaughterhouses, butcher shops, and veterinary clinics, as well as a monthly phone-based survey of livestock owners sampling from the panel created through the Livestock Census. A full report will be produced annually, with quarterly reports produced and distributed on a web platform in cooperation with the MIS and GIS Departments.

Indicators will include, but may not be limited to:
– Sale of livestock by species and breed at butcher shops and slaughterhouses
– Information on animal health collected through veterinary clinics and livestock owners
– Information on breeding and birthing levels collected from livestock owners
– Marketing patterns

Monthly Price Bulletins - The ASU will collect and distribute information related to the current market price of selected commodities. Information will be distributed through a web platform maintained in cooperation with the MIS and GIS Departments. The ASU will collaborate with the Roshan Malomat IVR and SMS mechanism to allow for a greater reach of price data to end users, and in particular to farmers.

2. ACTION 2: ASU STRUCTURE

The current structure of the ASU is ineffective as tashkeel staff are organized by data stream only (market, livestock, farm household, and production) as opposed to task specialization (Data Entry Officers, analyst, etc.). Under the current structure, the national-level ASU staff are responsible for the collection, analysis, and reporting of data under their respective data stream, but rarely meet expectations due to a lack of capacity to perform the tasks, a lack of budget to conduct surveys, and poor leadership to organize activities. It is suggested that a hybrid structure be put in place, using activity and task specializations at the middle management level and complete task specializations at the lower levels to better attain expertise, build in layers of verification and validation, reduce slack and thereby enhance workforce optimization. The structure takes into account budget restrictions, as only 16
permanent positions have been suggested, of which the current 11 *tashkeel* staff fill immediately and the remaining 5 junior positions (Call Center Officers) will be phased in when the funds become available. Only one contractual position is suggested—Technical Advisor—who will be responsible for continuing to build the capacity of the ASU over the next 5 years. The structure also reflects the need for temporary Data Entry Officers during peak survey seasons (spring, summer, and fall). In addition, the recommended structure highlights future ownership of data entry at the provincial level, as the central staff should be responsible for design, overall management, and the intellectual components only (ADCUS Model) within 10 years.

![Figure 20: Revised ASU Structure](image)

**3. ACTION 3: JOB DESCRIPTIONS**

In order to meet the expectations detailed in the mandate and for the revised structure to function at optimal levels, the ASU staff must clearly understand their individual roles and responsibilities. To date, job descriptions for the ASU staff do not exist, and therefore, they are involved in any ad-hoc task assigned, from enumeration to reporting writing. The following job descriptions provide details on specific responsibilities and are based on the current and expected capacity of the ASU *tashkeel* staff. In addition, realistic salary expectations are included given the current operating environment in Afghanistan, and taking into account necessary increases in salaries to mitigate the chance of staff turnover.

**Focus Box 11: Technical Advisor Job Description**

**Technical Advisor (Afghan Consultant)**

**Overview**

As thoroughly documented, the ASU team still requires technical support for several years before they can operate completely independently. As such, an Afghan Technical Advisor is needed to provide targeted trainings to management, analysts, and Data Entry Officers. In addition, the Technical Advisor will be responsible for ensuring the quality of outputs, but will not write the data reports for the ASU. Instead, the Technical Advisor will coach and support the ASU team through the analysis and drafting process. Finally, the Technical
Advisor will be responsible for assisting the ASU in designing and organizing the data collection activities, further designing and implementing workforce optimization mechanisms, and drafting policy and concept documents for senior MAIL leadership to drive forward the statistics agenda.

**Duration:** 5 years

**Exit Strategy**

It is expected that by 1399 (2020) the ASU team will have the technical capacity to operate independently and the Technical Advisor position will no longer be necessary. Before departing, the Technical Advisor should identify an appropriate ASU staff member to assume the responsibility of a Training and Standards Officer. Essentially, a person who continues this role, but internally from the Ministry.

**Estimated Salary Expectations:** 3,000 USD per month (min. 180,000 over 5 years)

**Location:** Kabul, with trips to the provinces as necessary

**Specific Responsibilities:**

- Create training materials and student handouts for tailored interactive classroom activities for Data Entry Officers, Call Center Officers, analysts, and management
- Assist the ASU management in developing and implementing annual work plans based on the regular data collection needs of the Ministry
- Provide coaching and oversight to the ASU team in the design and implementation of all data collection activities, and data entry, analysis and reporting
- Responsible for translating data reports into English
- Continuously assess the individual capacity of each of the ASU staff members and regularly report increases (or lack thereof) of skill development
- Assist the ASU management to institutionalize systems, mechanisms, and processes necessary for a sound and sustainable statistics service
- Assist the Director of ASMIS in building better coordination among the ASMIS Units (GIS, MIS, and ASU) and as such, higher quality data outputs
- Assist in building the legitimacy of the ASU and MAIL produced data with the greater agricultural community in Afghanistan (donors, implementing partners, international organizations, the private sector, NGOs, etc.)
- Assist mid and senior MAIL leadership with the design of policy and ad-hoc data-related strategic documents

**Qualifications**

**Languages:** Fluent in written and spoken Dari and English. Fluency in written and spoken Pashto preferred, but not required

**Education:** Master’s Degree in a relevant discipline or considerable relevant work experience
Experience:
- A minimum of 5 years’ experience working at an Afghan civil service (preference given to candidates with experience at MAIL)
- Demonstrated expertise with Microsoft Office Suite, particularly Excel and Access
- Knowledge of common statistics software packages (SPSS, STATA, R, etc.)
- Demonstrated expertise in capacity building program development and management

Communication:
- Excellent ability to communicate effectively at every level (verbal and written), from donors, to government representatives to local Expat and national staff
- Excellent ability giving presentation to diverse audiences and stakeholders in challenging environments
- Proven experience writing data-related reports, policy papers, assessments, and/or strategic recommendations that require deep analytical capacity

Management:
- Extensive experience working and managing activities and interpersonal relationships in challenging political and physical environments
- Ability to work with minimal supervision, including prioritizing workloads to meet deadlines

Focus Box 12: ASU Head Job Description

ASU Head
Overview
The Head of Unit is responsible for the overall management of ASU staff, for ensuring data and output quality, for reporting to the Director of ASMIS, and for coordinating and collaborating with the Heads of the GIS and MIS Units. Within 5 years (by 1399 / 2020), the ASU Head must have sound knowledge and a firm understanding of all core areas imperative to data collection, analysis, and reporting in order to assume some responsibilities assigned to the Technical Advisor.

Duration: Permanent (Tashkeel)

Estimated Salary Expectations: GIRoA civil service salary scale - grade 3. The Head of Unit position will go through the WB CBR Process to increase the salary and therefore better ensure the long-term commitment of the staff member. The CBR salary scale for grade 3 is from 800 to 1,500 USD per month (9,600 - 18,000 per annum). Increases in salary are dependent on a performance review conducted annually by the ASMIS Director.

Location: Kabul, with trips to the provinces as required

Specific Responsibilities:

12 It is a common occurrence for tashkeel staff to leave the Afghan civil service for better paying jobs once capacity has been built.
- Actively participate in training programs offered by the Technical Advisor
- Work with the Technical Advisor to provide oversight, support and coaching to staff in the ASU in designing paper and electronic survey tools, fieldwork methodologies, data entry shell creation, data analysis, and report writing
- Final draft decision-making authority for all data activities and outputs
- Report activities and submit outputs to the Director of ASMIS
- Coordinate with the GIS and MIS Unit Heads for data collection activities, and with all general directorates depending on the activity in question (e.g. horticulture census should be a joint effort between the ASU, GIS, and the Directorate of Horticulture)
- Work with the Technical Advisor to develop and implement annual work plans based on the regular data collection needs of the Ministry
- Work with theTechnical Advisor to continuously assess the individual capacity of each ASU staff member and regularly report increases (or lack thereof) of skill development
- Work with the Technical Advisor to institutionalize systems, mechanisms, and processes necessary for a sound and sustainable statistics service
- Work with the Technical Advisor and the Director of ASMIS in building better coordination among the ASMIS Units (GIS, MIS, and ASU) and as such, higher quality data outputs
- In cooperation with the relevant sector manager, regularly present activity results to the MAIL and wider agricultural communities

**Qualifications:**

**Languages:** Fluent in written and spoken Dari and Pashto. Fluency in English preferred, but not required

**Education:** a minimum of a Bachelor’s Degree in Agriculture from an Afghan University recognized by the Ministry of Higher Education in Afghanistan

**Test:** Attain a score of 80% or higher on the CBR interview exam

**Experience:**

- A minimum of 10 years’ experience working in the ASU
- Demonstrated basic knowledge and experience working with EpiData and Microsoft Office Suite. Demonstrates excellent potential to gain expertise in these areas
- A firm understanding of the current context in regards to market data, livestock and agricultural production, and farm household data

**Communication:**

- Basic ability to, and excellent potential to gain expertise in communicating effectively (verbal and written)
– Basic ability to, and excellent potential to gain expertise in giving presentations to diverse audiences and stakeholders
– Proven experience writing descriptive data-related reports. Excellent potential to write analytical data-related reports, policy papers, assessments, and/or strategic recommendations that require deep analytical capacity

Management:
– Experience working and managing activities and interpersonal relationships
– Ability to work with minimal supervision, including prioritizing workloads to meet deadlines

Focus Box 13: Market Data & Reporting Manager Job Description

Market Data & Reporting Manager

Overview
The Market Data & Reporting Manager is responsible for the overall management of the market data stream as well as for editing all reports produced by the ASU, before being sent to the Head of Unit for approval. As such, the Market Data & Reporting Manager will work in close collaboration with the Market Data Analyst and will also review reports approved by the Livestock Data and Analysis Manager and by the Production/Farm Household Data & Database Manager. This individual was chosen to specialize on reporting as he will have the most experience writing reports on a consistent basis given that Price Bulletins are produced on a monthly basis. Within 5 years (by 1399 / 2020), the Market Data & Reporting Manager must have expertise in market data analysis and must be the most capable descriptive and analytical writer among the ASU team.

Duration: Permanent (tashkeel)

Estimated Salary Expectations: GiRoA civil service salary scale - grade 4. The Market Data & Reporting Manager position will eventually go through the WB CBR Process which will increase the salary and therefore better ensure the long-term commitment of the staff member. The CBR salary scale for grade 4 is from 400 USD to 1,000 USD per month (4,800 USD - 12,000 USD per annum). Increases in salary are dependent on a performance review conducted annually by the Head of Unit.

Location: Kabul, with trips to the provinces as required

Specific Responsibilities:
– Actively participate in all training programs offered by the Technical Advisor
– Work with the Technical Advisor and Head of Unit to oversee all market data related activities: design of tools and fieldwork methodology, data collection, data entry, data cleaning, analysis and report writing
– Work with the Technical Advisor to finalize drafts of all reports produced by the ASU. Once approved, the reports are sent to the Head of Unit
– Directly supervise the work of the Market Data Analyst and the 2 dedicated Data Entry Officers
Focus Box 14: Livestock Data & Data Analysis Manager Job Description

Livestock Data & Data Analysis Manager

Overview

The Livestock Data & Data Analysis Manager is responsible for the overall management of the livestock data stream as well as for approval of all data analysis produced (e.g. pivot tables, percentages, cross-tabs, etc.) by the ASU, before being sent back to the stream manager for report drafting. As such, the Livestock Data & Data Analysis Manager will work in close collaboration with the Livestock Analyst and will also review analysis drafted by the Market Data stream and by the Production/Farm Household Data stream. Within 5 years (by 1399 / 2020), the Livestock Data & Data Analysis Manager must have expertise in livestock data in Afghanistan and must be the most capable data analyst among the ASU team.

Duration: Permanent (tashkeel)

Estimated Salary Expectations: GIRoA civil service salary scale - grade 4. The Livestock Data & Data Analysis Manager position will eventually go through the WB CBR Process which will increase the salary and therefore better ensure the long-term commitment of the staff member. The CBR salary scale for grade 4 is from 400 USD to 1,000 USD per
month (4,800 USD - 12,000 USD per annum). Increases in salary are dependent on a performance review conducted annually by the Head of Unit.

**Location:** Kabul, with trips to the provinces as required

**Specific Responsibilities:**

- Actively participate in all training programs offered by the Technical Advisor
- Work with the Technical Advisor and Head of Unit to oversee all livestock data related activities: design of tools and fieldwork methodology, data collection, data entry, cleaning, analysis and report writing
- Work with the Technical Advisor to finalize data analysis from each ASU stream. Once approved, the data and charts are sent back to the corresponding stream manager
- Directly supervise the work of the Livestock Analyst, temporary Data Entry Officers, and Call Center Officers
- Report directly to the Head of Unit

**Qualifications:**

**Languages:** Fluent in written and spoken Dari and Pashto

**Education:** a minimum of a Bachelor’s Degree in Agriculture from an Afghan University recognized by the Ministry of Higher Education in Afghanistan

**Test:** Attain a score of 80% or higher on the CBR interview exam

**Experience:**

- A minimum of 5 years’ experience working in the ASU
- Demonstrated basic knowledge and experience working with EpiData and Microsoft Office Suite, in particular Excel. Demonstrates excellent potential to gain expertise in data analysis in Excel
- Has a firm grasp on the current context in regards to livestock data in Afghanistan

**Communication:**

- Basic ability to, and excellent potential to gain expertise in communicating effectively (verbal and written)
- Proven experience writing descriptive data-related reports. Excellent potential to write analytical data-related reports.

**Management:**

- Experience working and managing activities and interpersonal relationships
- Ability to work with some supervision, including prioritizing workloads to meet deadlines
Focus Box 15: Production/Farm Household Data & Database Manager Job Description

**Production/Farm Household Data & Database Manager**

**Overview**

The Production/Farm Household Data & Database Manager is responsible for the overall management of the agricultural production and farm household data stream as well as for ensuring the quality of data and updating and maintaining the ASU database. As such, the Production/Farm Household Data & Database Manager will work in close collaboration with the Cereals and Horticulture Analysts and will also check all data cleaned by the Data Coordination Officer from each stream. Within 5 years (by 1399/2020), the Production/Farm Household Data & Database Manager must have expertise in agricultural production data and must be the most capable database manager among the ASU team.

**Duration:** Permanent *(tashkeel)*

**Estimated Salary Expectations:** GI RoA civil service salary scale - grade 4. The Production/Farm Household Data & Database Manager position will eventually go through the WB CBR Process which will increase the salary and therefore better ensure the long-term commitment of the staff member. The CBR salary scale for grade 4 is from 400 USD to 1,000 USD per month (4,800 USD - 12,000 USD per annum). Increases in salary are dependent on a performance review conducted annually by the Head of Unit.

**Location:** Kabul, with trips to the provinces as required

**Specific Responsibilities:**

- Actively participate in all training programs offered by the Technical Advisor
- Work with the Technical Advisor and Head of Unit to oversee all agricultural production and farm household data related activities: design of tools and fieldwork methodology, data collection, data entry, cleaning, analysis and report writing
- Work with the Technical Advisor to operate and maintain the ASU database. Once approved, the clean database is sent back to the corresponding stream manager
- Directly supervise the work of the Cereals and Horticulture Analyst, the Database Coordination Officer, temporary Data Entry Officers, and Call Center Officers
- Report directly to the Head of Unit
- Responsible for overseeing coordination with the MIS Unit, in regards to merging the ASU databases into the MIS platform for safe storage.

**Qualifications:**

**Languages:** Fluent in written and spoken Dari and Pashto

**Education:** a minimum of a Bachelor’s Degree in Agriculture from an Afghan University recognized by the Ministry of Higher Education in Afghanistan

**Test:** Attain a score of 80% or higher on the CBR interview exam
Experience:

- A minimum of 5 years’ experience working in the ASU
- Demonstrated basic knowledge and experience working with EpiData and Microsoft Office Suite, in particular Excel and Access. Demonstrates excellent potential to gain expertise in database management
- Has a firm grasp on the current context in regards to agricultural production and farm household data in Afghanistan

Communication:

- Basic ability to, and excellent potential to gain expertise in communicating effectively (verbal and written)
- Proven experience writing descriptive data-related reports. Excellent potential to write analytical data-related reports.

Management:

- Experience working and managing activities and interpersonal relationships
- Ability to work with some supervision, including prioritizing workloads to meet deadlines

Focus Box 16: Market Analyst Job Description

Market Analyst

Overview

The Market Analyst is responsible for drafting the analysis and reports for the monthly Price Bulletins produced by ASU. The analyst will work in close collaboration with the Data Coordination Officer to ensure quality data has been collected and the database is clean. The analyst will be responsible for coordinating M&E activities in tandem with the responsible DAIL counterparts in each province. The Market Analyst reports to the Market Data & Reporting Manager. Within 5 years (by 1399 / 2020), the Market Analyst should develop expertise on market related data in Afghanistan and should be able to work semi-autonomously (light supervision).

Duration: Permanent (tashkeel)

Estimated Salary Expectations: GIROA civil service salary scale - grade 5: approximately 7,500 AFN (130 USD) per month. Grade 5 positions will not go through the CBR process at this time. Promotion to grade 4 possible, after a performance evaluation by the Head of Unit and stream manager.

Location: Kabul, with trips to the provinces as required

Specific Responsibilities:

- Actively participate in all training programs offered by the Technical Advisor
- Work with the Market Data & Reporting Manager to manage the frequent market data surveys: design/re-design of tools and fieldwork methodology, data collection, data entry, cleaning, analysis and report writing
– Primarily responsible for drafting the analysis and reports for the monthly Price Bulletins
– Work in close collaboration with the Database Coordination Officer, the Data Entry Officers, and the Call Center Officers to ensure quality data
– Work with DAIL counterparts to coordinate M&E activities at the provincial level on 10% of the sample
– Report directly to the Market Data & Reporting Manager

Qualifications:

Languages: Fluent in written and spoken Dari and Pashto

Education: a minimum of a Bachelor’s Degree in Agriculture from an Afghan University recognized by the Ministry of Higher Education in Afghanistan

Experience:
– A minimum of 2 years’ experience working in the ASU
– Demonstrated basic knowledge and experience working with EpiData and Microsoft Office Suite, in particular Excel and Word. Demonstrates excellent potential to gain competence in Excel analysis and descriptive Word reports
– Has a firm grasp on the current context in regards to market data across Afghanistan, and should aim to develop expertise in this area

Communication:
– Basic ability to, and excellent potential to gain competence in communicating effectively (verbal and written)
– Some experience writing descriptive data-related reports. Excellent potential to write descriptive market data-related reports

Focus Box 17: Livestock Analyst Job Description

Livestock Analyst

Overview

The Livestock Analyst is responsible for drafting the analysis and reports for the livestock update, and every 10 years, the livestock census. The analyst will work in close collaboration with the Data Coordination Officer to ensure quality data has been collected and the database is clean. The analyst will be responsible for coordinating M&E activities in tandem with the responsible DAIL counterparts in each province. The Livestock Analyst reports to the Livestock Data & Data Analysis Manager. Within 5 years (by 1399 / 2020), the Livestock Analyst should develop expertise on livestock related data in Afghanistan and should be able to work semi-autonomously (light supervision).

Duration: Permanent (tashkeel)

Estimated Salary Expectations: GIRoA civil service salary scale - grade 5: approximately 7,500 AFN (130 USD) per month. Grade 5 positions will not go through the CBR process at
this time. Promotion to grade 4 possible, after a performance evaluation by the Head of Unit and stream manager.

**Location:** Kabul, with trips to the provinces as required

**Specific Responsibilities:**

- Actively participate in all training programs offered by the Technical Advisor
- Work with the Livestock Data & Data Analysis Manager to manage the livestock surveys: design/re-design of tools and fieldwork methodology, data collection, data entry, cleaning, analysis and report writing
- Primarily responsible for drafting the analysis and reports for the livestock updates and livestock census
- Work in close collaboration with the Database Coordination Officer, the Data Entry Officers, and Call Center Officers to ensure quality data
- Work with DAIL counterparts to coordinate M&E activities at the provincial level on 10% of the sample
- Report directly to the Livestock Data & Data Analysis Manager

**Qualifications:**

**Languages:** Fluent in written and spoken Dari and Pashto

**Education:** a minimum of a Bachelor’s Degree in Agriculture from an Afghan University recognized by the Ministry of Higher Education in Afghanistan

**Experience:**

- A minimum of 2 years’ experience working in the ASU
- Demonstrated basic knowledge and experience working with EpiData and Microsoft Office Suite, in particular Excel and Word. Demonstrates excellent potential to gain competence in Excel analysis and descriptive Word reports
- Has a firm grasp on the current context in regards to livestock data across Afghanistan, and should aim to develop expertise in this area

**Communication:**

- Basic ability to, and excellent potential to gain competence in communicating effectively (verbal and written)
- Some experience writing descriptive data-related reports. Excellent potential to write descriptive livestock data-related reports

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**Focus Box 18: Cereals Analyst Job Description**

**Cereals Analyst**

**Overview**

The Cereals Analyst is responsible for drafting the analysis and reports for the cereals update, and every 10 years, contributing to the agriculture census. The analyst will work
In close collaboration with the Data Coordination Officer to ensure quality data has been collected and the database is clean. The analyst will be responsible for coordinating M&E activities in tandem with the responsible DAIL counterparts in each province. The Cereals Analyst reports to the Production/Farm Household Data & Database Manager. Within 5 years (by 1399 / 2020), the Cereals Analyst should develop expertise on cereal related data in Afghanistan and should be able to work semi-autonomously (light supervision).

**Duration:** Permanent (*tashkeel*)

**Estimated Salary Expectations:** GiRoA civil service salary scale - grade 5: approximately 7,500 AFN (130 USD) per month. Grade 5 positions will not go through the CBR process at this time. Promotion to grade 4 possible, after a performance evaluation by the Head of Unit and stream manager.

**Location:** Kabul, with trips to the provinces as required

**Specific Responsibilities:**

- Actively participate in all training programs offered by the Technical Advisor
- Work with the Production/Farm Household & Database Manager to manage the cereal related surveys: design/re-design of tools and fieldwork methodology, data collection, data entry, cleaning, analysis and report writing
- Primarily responsible for drafting the analysis and reports for the cereals updates and for the cereals component of the agriculture census
- Work in close collaboration with the Database Coordination Officer, the Data Entry Officers, and Call Center Officers to ensure quality data
- Work with DAIL counterparts to coordinate M&E activities at the provincial level on 10% of the sample
- Report directly to the Production/Farm Household & Database Manager

**Qualifications:**

**Languages:** Fluent in written and spoken Dari and Pashto

**Education:** a minimum of a Bachelor’s Degree in Agriculture from an Afghan University recognized by the Ministry of Higher Education in Afghanistan

**Experience:**

- A minimum of 2 years’ experience working in the ASU
- Demonstrated basic knowledge and experience working with EpiData and Microsoft Office Suite, in particular Excel and Word. Demonstrates excellent potential to gain competence in Excel analysis and descriptive Word reports
- Has a firm grasp on the current context in regards to cereals data across Afghanistan, and should aim to develop expertise in this area

**Communication:**

- Basic ability to, and excellent potential to gain competence in communicating effectively (verbal and written)
- Some experience writing descriptive data-related reports. Excellent potential to write descriptive cereals data-related reports
Focus Box 19: Horticulture Analyst Job Description

**Horticulture Analyst**

**Overview**

The Horticulture Analyst is responsible for drafting the analysis and reports for the horticulture update, and every 10 years, contributing to the agriculture census. The analyst will work in close collaboration with the Data Coordination Officer to ensure quality data has been collected and the database is clean. The analyst will be responsible for coordinating M&E activities in tandem with the responsible DAIL counterparts in each province. The Horticulture Analyst reports to the Production/Farm Household Data & Database Manager. Within 5 years (by 1399 / 2020), the Horticulture Analyst should develop expertise on horticulture related data in Afghanistan and should be able to work semi-autonomously (light supervision).

**Duration:** Permanent (tashkeel)

**Estimated Salary Expectations:** GIRoA civil service salary scale - grade 5: approximately 7,500 AFN (130 USD) per month. Grade 5 positions will not go through the CBR process at this time. Promotion to grade 4 possible, after a performance evaluation by the Head of Unit and stream manager.

**Location:** Kabul, with trips to the provinces as required

**Specific Responsibilities:**

- Actively participate in all training programs offered by the Technical Advisor
- Work with the Production/Farm Household & Database Manager to manage the horticulture related surveys: design/re-design of tools and fieldwork methodology, data collection, data entry, cleaning, analysis and report writing
- Primarily responsible for drafting the analysis and reports for the horticulture updates and for the horticulture component of the agriculture census
- Work in close collaboration with the Database Coordination Officer, the Data Entry Officers, and Call Center Officers to ensure quality data
- Work with DAIL counterparts to coordinate M&E activities at the provincial level on 10% of the sample
- Report directly to the Production/Farm Household & Database Manager

**Qualifications:**

**Languages:** Fluent in written and spoken Dari and Pashto

**Education:** a minimum of a Bachelor’s Degree in Agriculture from an Afghan University recognized by the Ministry of Higher Education in Afghanistan

**Experience:**

- A minimum of 2 years’ experience working in the ASU
- Demonstrated basic knowledge and experience working with EpiData and Microsoft Office Suite, in particular Excel and Word. Demonstrates excellent potential to gain competence in Excel analysis and descriptive Word reports
Has a firm grasp on the current context in regards to horticulture data across Afghanistan, and should aim to develop expertise in this area

Communication:

- Basic ability to, and excellent potential to gain competence in communicating effectively (verbal and written)
- Some experience writing descriptive data-related reports. Excellent potential to write descriptive cereals data-related reports

Focus Box 20: Data Coordination Officer Job Description

Data Coordination Officer

Overview

The Data Coordination Officer is responsible for organizing the data entry teams, for creating the EpiData shells, cleaning the raw data files, and for ensuring the quality of data in tandem with the relevant analyst. The Data Coordination Officer will also be primarily responsible for maintaining hardware and software used for electronic data collection, and for managing the use of this equipment in the field. In addition, the Data Coordination Officer is responsible for working with his counterpart within the MIS Unit to ensure ASU data is safely stored in the MIS database and properly presented on the web-based platform via MIS and GIS. The Data Coordination Officer reports to the Production/Farm Household Data & Database Manager. Within 5 years (by 1399 / 2020), the Data Coordination Officer should develop a strong expertise in database management, and should be able to work semi-autonomously (light supervision).

Duration: Permanent (tashkeel)

Estimated Salary Expectations: GIRoA civil service salary scale - grade 5: approximately 7,500 AFN (130 USD) per month. Grade 5 positions will not go through the CBR process at this time. Promotion to grade 4 possible, after a performance evaluation by the Head of Unit and stream manager.

Location: Kabul

Specific Responsibilities:

- Actively participate in all training programs offered by the Technical Advisor
- Review all questionnaires developed by the different streams
- Create all EpiData shells for data entry
- Responsible for recruiting temporary Data Entry Officers
- Develop timelines and quotas for Data Entry Officers and Call Center Officers
- Manage the Data Entry Officers and Call Center Officers
- Work in close collaboration with analysts, the Data Entry Officers, and Call Center Officers to ensure quality data
- Responsible for introducing new technology at the appropriate time (e.g. smartphones for automated data entry when the Ministry can afford such mechanisms)
Qualifications:

Languages: Fluent in written and spoken Dari and Pashto

Education: a minimum of a Bachelor’s Degree in Agriculture from an Afghan University recognized by the Ministry of Higher Education in Afghanistan

Experience:

- A minimum of 2 years’ experience working in the ASU
- Demonstrated basic knowledge and experience working with EpiData and Microsoft Office Suite, in particular Excel and Access. Demonstrates excellent potential to gain competence in EpiData shell creation and database management

Communication:

- Basic ability to, and excellent potential to gain competence in communicating effectively (verbal and written)

Focus Box 21: Permanent Data Entry Officer Job Description

Permanent Data Entry Officer

Overview

The permanent Data Entry Officers (2 positions) are responsible for data entry for the market-related surveys. This includes checking each questionnaire for interviewer mistakes, flagging major issues with the Data Coordination Officer when they arise, and for meeting quotas and deadlines set by the Data Coordination Officer. In addition, the Data Entry Officers will assist other streams in data entry in case of slack. The officers report to the Data Coordination Officer. Within 5 years (by 1399 / 2020), the Data Entry Officers should develop a strong data entry expertise and should be able to work semi-autonomously (light supervision).

Duration: Permanent (tashkeel)

Estimated Salary Expectations: GIRoA civil service salary scale - grade 6: approximately 6,000 AFN (105 USD) per month. Grade 6 positions will not go through the CBR process at this time. Promotion to grade 5 possible, after a performance evaluation by the Data Coordination Officer.

Location: Kabul

Specific Responsibilities:

- Actively participate in all training programs offered by the Technical Advisor
- Check questionnaires for quality and report major issues to the Data Coordination Officer
- Meet daily and weekly data entry quotas, while maintaining a high level of accuracy
Focus Box 22: Temporary Data Entry Officer Job Description

Temporary Data Entry Officer

Overview

The temporary Data Entry Officers (up to 10 positions during high volume periods of data entry) are responsible for data entry for the livestock, cereals, and horticulture streams. This includes checking each questionnaire for interviewer mistakes, flagging major issues with the Data Coordination Officer when they arise, and for meeting quotas and deadlines set by the Data Coordination Officer. The officers report to the Data Coordination Officer.

Future Planning

In the medium-term, data entry should become the responsibility of regional centers to reduce the workload of the national staff and to increase capacity outside of Kabul. As such, Kandahar, Herat, Jalalabad, and Mazar-e-Sharif will join Kabul to become data entry hubs.

Duration: Temporary. The Ministry should recruit University Students, preferably from the Faculty of Computer Science, or as a second choice, Faculty of Agriculture

Estimated Salary Expectations: 200 AFN (3.5 USD) per day of work completed. The Data Coordination Officer will monitor performance (quotas and accuracy) and deductions will be made for below average work.

Location: Kabul (short-term), regional centers (medium to long-term) - Herat, Kandahar, Mazar-e-Sharif, Jalalabad, Kabul

Specific Responsibilities:

- Actively participate in all training programs offered by the Technical Advisor
- Check questionnaires for quality and report major issues to the Data Coordination Officer
- Meet daily and weekly data entry quotas, while maintaining a high level of accuracy
Focus Box 23: Call Center Officer Job Description

Call Center Officer

Overview
The Call Center Officers (5 full-time positions) are responsible for phone-based interviews and M&E during the various surveys conducted by the ASU. The Call Center Officers report to the Data Coordination Officer.

Duration: Permanent (tashkeel)

Estimated Salary Expectations: GIRoA civil service salary scale - grade 6: approximately 6,000 AFN (105 USD) per month. Grade 6 positions will not go through the CBR process at this time. Promotion to grade 5 possible, after a performance evaluation by the Data Coordination Officer.

Location: Kabul

Specific Responsibilities:
- Actively participate in all training programs offered by the Technical Advisor
- Actively participate in questionnaire training organized by the Data Coordination Officer
- Meet daily and weekly data entry quotas, while maintaining a high level of accuracy
- Report directly to the Data Coordination Officer

Qualifications:
Languages: Fluent in written and spoken Dari and/or Pashto
Education: a minimum of a high school education
Experience:
- Entry level position. No previous experience necessary, but preferred
- Strong familiarity with typing in Dari, Pashtu, and English alphabets and keyboards
- Average typing speed of 8,000 keystrokes per hour
Focus Box 24: Head of DAIL PPC Job Description

Head of DAIL PPC

Overview

The Head of the 34 DAIL Planning and Program Coordination (PPC) Units have full-time responsibilities. For the purposes of this job description, responsibilities related to data collection activities will be discussed only. The Head of each DAIL PPC is responsible for the overall management of data collection activities in their respective province. In the short-term, this includes supervising the DAIL Officer assigned to coordinate efforts with the ASU and final check of the questionnaires before shipment to Kabul. In the medium-term, the Head of DAIL PPC in regional centers will also be responsible for ensuring data entry quality.

Future Planning

In the future, it is hoped that a DAIL ASU would be created and that the Head Unit would assume these responsibilities. However, the Ministry has yet to lay the ground work and therefore it is unlikely that such a unit would be created within 10 years.

Duration: Permanent (tashkeel)

Salary Expectations: Already staffed, does not count against the statistics budget

Location: Provincial capital

Specific Responsibilities for data activities:

– Supervise the DAIL Officer assigned to work on the data collection activities and conduct a final check of the questionnaires before Kabul.

Qualifications:

Languages: Fluent in written and spoken Dari and/or Pashto

Education: a minimum of a Bachelor’s Degree in Agriculture from an Afghan University recognized by the Ministry of Higher Education in Afghanistan

Experience:

– A minimum of 5 years’ experience working at DAIL
– Demonstrated basic knowledge and experience managing survey field teams.
– Familiar with survey tools, and potential to develop expertise

Management:

– Experience working and managing activities and interpersonal relationships
– Ability to work with light supervision, including prioritizing workloads to meet deadlines
Focus Box 25: DAIL Officer Job Description

### DAIL Officers

**Overview**

DAIL Officers within the Department of PPC have full-time responsibilities. For the purposes of this job description, responsibilities related to data collection activities will be discussed only. The DAIL Officer assigned to data collection activities is responsible for recruiting and training enumerators on the questionnaire, for conducting M&E on 10% of the total sample; for performing ground-truthing surveys during annual update reports; and for reporting activities to the Head of the DAIL PPC and ultimately to the Data Coordination Officer in Kabul. In the medium-term the DAIL Officer in regional centers will also be responsible for managing Data Entry Officers.

**Future Planning**

In the future, it is hoped that a DAIL ASU would be created and that a Statistics Officer would assume these responsibilities. Yet, the Ministry has yet to lay the ground work and therefore it is unlikely that such a unit would be created within 10 years.

**Duration:** Permanent (tashkeel)

**Salary Expectations:** Already staffed, does not count against the statistics budget

**Location:** Provincial capital

**Specific Responsibilities for data activities:**

- Recruit and train enumerators on the questionnaire
- Conduct monitoring of 10% of the sample by phone and when required, in person
- Perform ground-truthing surveys for each sector annual update survey
- Report to the Head of the DAIL PPC and to the Data Coordination Officer
- Ensure the safe delivery of questionnaires to Kabul, or to the regional center in the medium-term
- Building and maintaining a roster of CVs of potential enumerators for future engagements

**Qualifications:**

**Languages:** Fluent in written and spoken Dari and/or Pashto

**Education:** A minimum of a Bachelor’s Degree in Agriculture from an Afghan University recognized by the Ministry of Higher Education in Afghanistan

**Experience:**

- A minimum of 2 years’ experience working at DAIL
- Demonstrated basic knowledge and experience managing survey field teams, potential to develop expertise
- Familiar with survey tools, and potential to develop expertise

**Management:**

- Experience working and managing activities and interpersonal relationships
Focus Box 26: Enumerator Job Description

Enumerators

Overview

Temporary enumerators will be contracted to perform data collection in each province as needed. The enumerators will be given enumeration areas to collect market, livestock, and agricultural production data. The enumerators will be responsible for participating in a training to develop a firm understanding of each question, and best practices to conduct the interviews. Furthermore, the enumerators will be responsible for meeting daily quotas and for phone calls at a specified time each day with the DAIL Officer to review the number of interviews conducted and to discuss any challenges encountered. Finally, the enumerators will be responsible for the safekeeping of questionnaires until they are sent to the provincial center. The Enumerators will be held accountable for the quality of the information collected.

Duration: Temporary. DAIL should use the roster of CVs provided to ASU on enumerators used during the ADCUS program

Salary Expectations: 8 USD\(^\text{13}\) per interview (includes salary and transportation stipend). Deductions will be made based on poor performance (5% or more of questionnaires contain multiple errors and/or are deemed fraudulent). Bonuses could also be paid for exceptional performance.

Location: Residents from the province in which interviews are to be conducted. It is preferable if they are from the district they are assigned to

Specific Responsibilities for data activities:

- Actively participate in the DAIL led questionnaire training
- Responsible for collecting data in their respective enumeration area(s)
- Responsible for meeting daily quotas
- Daily phone call with DAIL Officer to review results and to discuss challenges
- Ensure the safekeeping of questionnaires and for delivery to the provincial center
- Held accountable for the quality of the data collected

Qualifications:

Languages: Fluent in written and spoken Dari and/or Pashto (depending on area)

Education: Minimum of a high school education

Experience:

- A minimum of 2 years’ experience as an enumerator
- Familiar with survey tools, and potential to develop expertise

\(^{13}\) This figure is based on the official CSO budget for contracted enumerators. This amount is less than the cost per interview during the ADCUS program (12 USD).
One of the greatest challenges facing MAIL is changing the perception of the greater agricultural community towards the data it produces. After years of publishing less than credible data, the agricultural community in Afghanistan has lost faith in the data published in the CSO Statistical Yearbook. Therefore, the ASU must create and enforce a robust data quality assurance plan, and build awareness of this mechanism so that confidence in MAIL-produced data gradually grows over time.

The structure, staff positions and their specific responsibilities are designed to better ensure a multi-layer quality assurance plan is enforced, thereby increasing the quality of data collected. The following uses the example of the structure used for the two large-scale censuses the ASU will be responsible for.

First, enumerators are accountable for collecting quality data, and in the event that performance does not meet expectations (5% or more of forms contain multiple issues) deductions to payments will be applied and they will be blacklisted from future surveys. In addition, since enumerators are contracted, they have the necessary financial incentive to perform well. A maximum of 50% of the enumerator salary should be paid upfront to cover travel costs and expenses, and the remaining balance should only be paid upon successful completion of tasks. Currently, extension agents are not paid additional salary to perform data collection activities, and as such do not have the motivation to perform the task or to ensure quality if they actually collect data.

Second, DAIL Officers are responsible for direct M&E using unique monitoring questionnaires containing 7 questions or less on 10% of the total sample by a mix of phone and in-person checks. The 10% must include interviewees randomly selected from each enumeration area in the province. Irregularities found at this step will be recorded and reported to the Head
of DAIL PPC and depending on the severity of the problem, a decision will be made on whether or not the enumerator will be fired and the interviews will be redone. For example, if forms are found to be falsified (enumerator fills in the information themselves), then they will be fired and replaced by a new enumerator to redo the interviews. Furthermore, the DAIL Officer is responsible for checking each questionnaire for interviewer mistakes, and will initial each page which indicates it has been checked and the page has been approved.

Third, the Head of DAIL PPCs is responsible for checking the monitoring forms completed by the DAIL Officer and for selecting 10% (1% of total sample) to place a second monitoring call to check if indeed the monitoring took place. Again, if irregularities are found, the Head of DAIL PPC will need to hold that DAIL Officer accountable. In addition, the Head of DAIL PPC will check 10% of the questionnaires submitted to look for interviewer mistakes, and will also initial each page of those questionnaires. If a number of mistakes are found, then the Head will be responsible for checking another 10% of submitted forms. Once the Head of DAIL PPC is satisfied with the questionnaires, they will write an email to the Data Coordination Officer in Kabul confirming that the data collected is of quality and that the shipment of questionnaires to Kabul for Data Entry has been approved.

Fourth, the Data Entry Officers are responsible for reporting high volumes of interviewer mistakes to the Data Coordination Officer (10% of forms contain 1 or more error from a particular province), or for any conflicting data points (female name but gender marked as male, etc.). If these cases are found, then the Data Coordination Officer will report these problems to the responsible Head of DAIL PPC and will instruct for the interviews to be redone.

Fifth, once the data has been entered, the Data Coordination Officer is responsible for cleaning the raw data file. This involves analyzing differences found between forms submitted for double-entry, removing/fixing data entry mistakes, checking for duplicate entries, and spot checking 5% of the entries for conflicting data points or significant outliers. If mistakes are found, the Data Coordination Officer will work with the Data Entry Officers and if need be, with the DAIL counterparts to correct the problem.

Finally, the Database Manager is responsible for reviewing the draft clean database and for final approval of the data collected, before the final clean database is sent to the relevant analyst.

For the first 5 years, the Technical Advisor is also responsible for checking the database before it is considered final, and will work with the Database Manager and the Data Coordination Officer to build their capacity on database management on a regular basis (minimum quarterly basis). The Database Manager and in particular, the Data Coordination Officer, are responsible for conducting trainings on a regular basis (minimum quarterly basis) with staff along the quality assurance chain. The Technical Advisor, the Database Manager, and the Data Coordination Officer should also hold briefings with key stakeholders ahead of the release of publications to clearly communicate the quality assurance plan.

5. Action 5: Storage of the ASU Data in MIS Database

A long-standing issue for MAIL has been the lack of a centralized database and platform to safely store and disseminate the ASU produced data. The MIS Unit has created a database/online application for the storage of on-budget project related data. Agriculture, livestock, and market data should also be stored in this system. As such, the ASU and MIS must come to an agreement for MIS to become the repository and distribution mode for all MAIL data and MIS must provide and train ASU staff on storage and standardized reporting templates. Furthermore, MAIL has proven to be inefficient in regards to disseminating...
important data reports. The ADCUS National II Survey Report of 2013 has not been released as it has yet to be approved. The FAO Land Cover Map of 2012 is still in draft form, and is now outdated before its release. Data must be delivered in a timely manner, and both storage and dissemination should be enforced through the drafting and enactment of the MAIL Data Storage and Dissemination Policy.

Focus Box 27: Draft MAIL Data Storage and Dissemination Policy

Key Points of the Draft MAIL Data Storage and Dissemination Policy

The safe storage and timely dissemination of data for decision-makers and when applicable, the agricultural community in Afghanistan is a priority for MAIL.

1. Storage
   - The MIS database is the official repository of all data related to agriculture in Afghanistan. This includes projects, agricultural production, livestock, irrigation, market prices, land cover, key publications, among other data of interest.

2. Dissemination
   - The MIS online application is the official and primary distribution platform for agriculture related data in Afghanistan.
   - Once datasets have been approved by projects, the ASU, and other entities, they are obliged to coordinate the integration of these datasets into the MIS database with immediate effect.
   - MIS is responsible for integrating, cleaning, and making available all agriculture related data within 2 months of taking ownership.
   - MAIL is responsible for final approval and dissemination of data reports within 3 months of the final draft being produced.
   - MIS will work with GIS to develop a web-based platform for regularly reporting and updating results of censuses, annual update surveys, and market data collected by the ASU.

6. ACTION 6: TARGETED REINFORCEMENT TRAININGS

In 1394 (2015), the Technical Advisor is responsible for designing and conducting interactive classroom lessons, providing support and coaching through actual data collection activities, and for evaluating the ASU team through tests and observations. The trainings will be based on the ADCUS module approach and the particular activities to be conducted that year; however, not all ASU staff will participate in each training course. Based on positions and specializations, the Technical Advisor will create unique lectures for certain individuals.

Module 1: Methodology and Survey Design

Participants: Head of Unit, Stream Managers (3), Analysts (4), and Database Coordination Officer

The Head of Unit and Stream Managers will participate in the methodology training, which will focus on reinforcing skills learned through ADCUS. The Technical Advisor will take the leadership team through timeline creation, budgeting, staffing plans, defining enumeration areas, and determining the appropriate collection approach. Case studies and actual survey preparation will be included in the training process.
The Head of Unit, Stream Managers, Analysts, and the Database Coordination Officer will participate in survey tool design training. This will include research question design, quantitative questionnaire creation, and will introduce qualitative research approaches. Again, case studies and actual survey preparation will be part of the training process.

For both methodology and survey design, classroom activities will be organized in the first quarter of 2015, when collection activities are limited due to the weather. Actual survey preparation and collection will likely take place in quarter 2, during the spring harvest season. The Technical Advisor will lead some of the trainings, but then the Head of Unit and Stream Managers will be tasked with training the Analysts and Database Coordination Officers to strengthen internal abilities to take ownership of capacity building activities.

**Module 2: Management and Data Collection**

**Participants:** Head of Unit, Stream Managers, Heads of DAIL PPC (34), DAIL Officers (34)

The Head of Unit and Stream Managers will be further trained on sample size determination. It is suggested that the training includes an introductory statistics course, so that the ASU leadership team understand the theory behind confidence levels, confidence intervals, and the appropriate sample size.

The Head of Unit and Stream Managers, with oversight from the Technical Advisor, will provide trainings to the Heads of DAIL PPC and DAIL Officers in regional zone centers on the recruitment and selection of enumerators, questionnaire training, and field team management, including M&E best practices. These trainings will follow the ADCUS ToT Approach.

Module 2 classroom style trainings will take place in the first quarter of 2015, with on-the-job training taking place during real data collection activities throughout the year.

**Module 3: Data Entry**

**Participants:** Database Manager, Data Coordination Officer and Data Entry Officers (2)

The Technical Advisor will focus on further building EpiData shell creation capacity with the Database Manager and Data Coordination Officer. A separate targeted data entry course will be created by the Data Coordination Officer for Data Entry Officers to improve their speed and accuracy.

The Technical Advisor will also be responsible for coordinating with the MIS Unit for training on standardized reporting templates and data entry in regards to the MIS system.

Module 3 classroom trainings will be organized in the first quarter of 2015, with actual EpiData shell creation and data entry taking place for the Monthly Price Bulletins, APR, and Horticulture Update.

**Module 4: Data Cleaning and Analysis**

**Participants:** Database Manager, Data Coordination Officer, and Analysts (4)

The Technical Advisor will train the Database Manager and Data Coordination Officer on data verification techniques for data quality purposes. The trainings will reinforce and build upon skills learned through the ADCUS program.
The Analysts will participate in basic analysis trainings to reinforce skills introduced through ADCUS, and will learn to describe and articulate results and to create clear and meaningful figures and tables.

Module 4 classroom trainings will take place in the first quarter of 2015, and actual data cleaning and analysis will happen through the APR, Monthly Price Bulletins, and Horticulture Update.

**Module 5: Report Creation**

**Participants:** Head of Unit, Stream Managers, and Analysts

Like other modules, the focus of training in 2015 in regards to report writing will be on reinforcing skills and building experience. In addition, the Technical Advisor will focus on analytical writing training, introducing the concept once again theoretically and through case studies.

The Head of Unit and Stream Managers will also be responsible for leading lectures for the Analysts to build internal capacity for training.

Classroom style trainings will take place in the first quarter of 2015, with actual report writing experience taking place through the APR, Monthly Price Bulletins, and Horticulture Update.

7. **ACTION 7: TIMELINE OF ACTIVITIES AND OUTPUTS**

The ASU has much difficulty implementing data collection activities and reporting data in a timely manner because the unit does not plan and does not set and enforce internal deadlines. It is imperative that the ASU leadership plans for actions, activities, and trainings that should take place on an annual basis.

As mentioned earlier, the ASU will have to phase-in collection activities over the course of a number of years, in order to secure the appropriate funding and also to have the technical capacity to perform the tasks. As 1394 (2015) is suggested to be a planning and re-organization year, with an emphasis on training, it is unrealistic to expect that MAIL would be able to add new collection activities. Therefore, the ASU will be responsible for collecting market data in order to produce its Monthly Price Bulletin, for collecting primarily cereals data for the annual Agriculture Prospects Report (APR), and for the annual Horticulture Update, following the ADCUS funded comprehensive National Horticulture Survey in 2014.

The Update should be conducted primarily by the Call Center, with interviewees randomly selected per enumeration area based on the panel developed through the 2014 survey. A relatively light ground team (temporary enumerators) will be mobilized in each province and coordinated by DAIL for interviews in which farmers could not be reached by phone and ultimately for M&E purposes to ensure quality data was collected by Call Center Officers.

A number of outputs will be produced in 1394 (2015). The Price Bulletin will be disseminated each month, the APR results by September, and the Horticulture Update by November. In addition the Technical Advisor is responsible for writing 3 ASU Unit capacity evaluations: (1) after the completion of the classroom lectures; (2) after the completion of the APR; and (3) after the completion of the Horticulture Update.
In 1394 (2015), it is also crucial that the unit plans for macro level actions over the next 10 years, to set phase-in targets, and for budgeting purposes. It is suggested that by 1395 (2016), intermediate level training is introduced and continues for two years. This will be followed by advanced training on survey design and statistics. By 1399 (2020), the Technical Advisor will be replaced by a _tashkeel_ Training and Standards Officer, who will continue reinforcing trainings and will also be responsible for ensuring a minimum standard for new recruits.

In terms of major actions, by 1395 (2016), MIS should have developed a special web-based platform for the dissemination of the ASU data. From 1397 (2018) to 1401 (2022), regional centers will gradually take ownership of data entry to decrease the burden of this task on central level staff. Finally, by 1402 (2023), the ASU should be ready to introduce the widespread use of automated data entry through smartphones. While this will likely happen earlier in major urban areas, by 1402 (2023), automated data entry should be completed on a national scale.

In regards to activities, the Livestock Census is planned to take place in 1395 (2016), and major preparations for this will have to start in 1394 (2015). The APR Survey will be phased out after the Agriculture Census in 1400 (2021) and replaced by the Cereals Update. The Monthly Price Bulletin will continue indefinitely, as it is a useful and popular publication and requires more frequent updates than other data.
8. **ACTION 8: FINANCIAL FORECASTING**

Based on the 10 year plan and annual plan, detailed budgets should be created to adequately forecast the costs of staffing, actions, and trainings. With this information, the DG of GDPPC can then request the necessary funds from the MoF, and when a gap exists between what is needed and what is available, then donors can be approached to address the financial need.

In 1394 (2015), the ASU operating costs (OPEX) are estimated to be approximately 182,000 USD. This figure includes all salaries and costs associated with data collection activities (travel, per diems, printing, communications, and call center start-up costs). Beyond 2015, the ASU OPEX fluctuates greatly depending on the year. In 1395 (2016), for example, the Livestock Census is estimated to cost approximately 1 million USD to...

![Figure 23: The ASU 10 Year Plan](image-url)

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cover all households and to track all *Kochi*, which will likely be an international endeavor\(^\text{14}\). This effort would likely become less costly with each successive census as the methodology can be refined once the full population involved is determined. In 1400 (2021), the Agriculture Census will take place, estimated to cost 500,000 USD. Finally, given possible inflation and incremental increases in salary, a 5% increase in OPEX was added per year, except for Census years and in 1399 (2020) when the Technical Advisor departs. It is estimated that a total of approximately 3.6 million USD is needed over 10 years to sustain and grow the ASU team and data collection activities.

\(^{14}\) *Kochi*, who produce a large portion of Afghanistan’s livestock, are a nomadic people who, often times cross Afghanistan’s northern and eastern international borders.

### ASU Budget 1394 (2015)

All prices in USD

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</tbody>
</table>

| Per Diems & Travel                          |     |  |  | |  | |
|---------------------------------------------|-----|------|  | |  | |
| Perdiems Technical Advisor                 | 1   |  | 30 | 50.00 | 1,500.00 |
| Perdiems ASU                                | 7   |  | 210| 50.00 | 10,500.00 |
| Perdiems DAIL Officers                     | 34  |  | 170| 30.00 | 5,100.00 |
| Airfare and/or roundtrip car transport to/from Kabul |  | | 30 | 150.00 | 4,500.00 |
| Transport Stipend for DAIL Officer M&E (Rural) | 34  |  | 170| 40.00 | 6,800.00 |
| Transport Stipend Technical Advisor/ASU (Urban) | 8   |  | 30 | 10.00 | 300.00 |
| Financial cost of Stipend & Perdiem transfers (mPaisa) |  | | | | 1,500.00 |
| Contingency                                | 5   |  |  | | 5,000.00 |
| **Sub-total**                               |     |  |  | | **35,200.00** |

| Others costs                                |     |  |  | |  | |
|---------------------------------------------|-----|------| | |  | |
| Communications Call Center                 | 5   |  | 6 | 100.00 | 3,000.00 |
| Call Center Computers                      | 5   |  |  | 500.00 | 2,500.00 |
| Communications ASU/Technical Advisor       | 12  |  | 12 | 20.00 | 2,880.00 |
| Stationery                                 | 5   |  |  | | 5,000.00 |
| Questionnaire Printing                     |     |  | | | 10,000.00 |
| Contingency                                | 2   |  |  | | 2,000.00 |
| **Sub-total**                               |     |  |  | | **25,380.00** |

| Total                                       |     |  |  | |  | |
|---------------------------------------------|-----|------| | |  | |
| **Total**                                   |     |  |  | | **$181,490.00** |
C. Short-term: 1395 and 1396

In 1395 (2016) and 1396 (2017), the unit should commit to the strategic planning developed in 1394 (2015) by enforcing policies, positions, and standards for both activities and any new staff members. The strategic actions need to be legislated by parliament so MAIL has the impetus to act, to ensure budget is secured, to facilitate cooperation with other government entities such as the CSO, and to obligate reporting at the ground level. Year two and three are critical for setting the pace for day-to-day activities within the unit.

1. **ACTION 1: MINIMUM HIRING STANDARDS POLICY**

For any future employee, it is important that the unit does not hire any individual that does not meet a strict minimum standard. This means that *tashkeel* staff cannot simply be shuffled into the ASU unless they meet the criteria set out for the position in question. The criteria detailed in the job descriptions should be adhered to at all times, and this should be enforced through the creation of a Minimum Hiring Standards Policy.

2. **ACTION 2: WEB-BASED REPORTING PLATFORM**

By 1395 (2016), it is important that the Ministry has adapted the MIS database/online application to include the ASU data, and that this online platform is available to the public via a link on the MAIL website. It is crucial that donors, implementing partners, NGOs, government officials, and other key stakeholders have access to a central platform to download data. The website created by the USAID Agricultural Credit Enhancement (ACE) program called Paywand is a model worth emulating. MIS should consider creating a user-friendly online application for the ASU data such as is already in place through the Paywand website.

3. **ACTION 3: LEGISLATION**

The Minister of Agriculture should lobby for legislation to be passed in Parliament that ensures that activities and outputs set forth in the mandate happen as planned and that adequate resources are dedicated to the largest collection efforts in a timely manner. Legislation would also ensure needed cooperation between MAIL and other necessary government bodies, particularly CSO, MEW, and MRRD. The legislation should focus on large decennial censuses, but include requirements for smaller intermediate and annual updates that provide useful data as well as enable a more efficient process during the larger activities. In designing legislation, it may be useful to look at the model and legislation employed by Pakistan, as the country operates a strong agriculture statistics system under similar conditions.

4. **ACTION 4: TARGETED INTERMEDIATE TRAININGS**

In 1395 (2016) and 1396 (2017) the Technical Advisor is responsible for building upon the basic trainings conducted in 1394 (2017), by introducing new and more advanced targeted lessons for each staff member. This should begin with an assessment of the current status of trainees, as the content of the trainings will largely depend on the outcomes of trainings conducted in 1395 (2016), and will therefore need to be determined at a later stage. Potential topics could include introduction to predictive tools and procedures.

In addition to data related trainings, a comprehensive training course should be provided to the Head of Unit and Stream Managers on standards enforcement. This includes training on minimum standards for new recruits, but also for data quality. This Technical Advisor can use the job descriptions and quality assurance plan as a basis to create this training course.
5. **ACTION 5: IDENTIFY AND IMPLEMENT QUICK WIN**

Based on data collected in 1394 (2015), the Head of the ASU, the Director of ASMIS, and the DG of GDPPC should identify and make a suggestion to the Minister on a critical need in the agriculture sector. It is important that the data is used for more than just reporting, and even if it is for a small project in a certain district, the resources should be allocated and the improvements should be made. All individuals along the agriculture value chain from input suppliers to consumers need to know that senior leaders are using the data for evidence-based decision-making. There is a certain sense of survey fatigue in Afghanistan, and therefore it is vital that key stakeholders in the agriculture sector realize the benefits of the time they spend being interviewed.

6. **ACTION 6: ACTIVITIES AND OUTPUTS**

As seen in Figure 23: The ASU 10 Year Plan, the primary focus in 1395 (2016) will be the Livestock Census. Preparations will need to begin in 1394 (2015), and resources will need to be secured a minimum of 6 months prior to the launch of fieldwork. The Ministry is already in negotiations with the FAO to find funding for the Livestock Census, which is at this time estimated to be funded at a level anywhere between 1 million USD and several million USD. The Technical Advisor will need to take the lead for this activity, but it will be a good test for the Head of Unit and the Livestock Manager to see if they can be major contributors. Other activities and outputs in 1395 (2016) and 1396 (2017) include the Monthly Price Bulletins, Horticulture Update, the APR Survey and in 1396 (2017), the Livestock Update. The methodology for these activities will follow the call center and light ground truthing approach. In addition, the Technical Advisor will be responsible for writing 3 ASU training progress reports per year, with the most comprehensive being after the completion of the Livestock Census.

D. **Medium-Term: 1397 and 1398**

By the end of 1398 (2019), the ASU should be an autonomous professional statistics service. The Technical Advisor will have served their purpose and will exit the unit, appointing a *tashkeel* Training and Standards Officer to take their place. In the medium-term, the activities and outputs should be routine, as the policies, legislation and several years of experience have ensured that quality data is collected and disseminated in a timely manner.

The ASU should start the decentralization plan, gradually empowering regional DAIL offices with data entry responsibilities. In regards to Kabul, automated data entry should become the norm through smartphones and ODK freeware. Therefore, Data Entry Officers are no longer needed at the national level. At the same time, it is hoped that GIS capacity has grown, and remote sensing imagery and high resolution mapping can be used in combination with ground and call-based surveys to even further increase the quality of data collected and reported.

Finally, by 1398 (2019), it is expected that the greater agricultural community would have developed confidence in the data reported, a drastic difference from current perceptions.

E. **Long-Term: 1399 to 1403**

In the long-term, the goal is to maintain and gradually increase professional capacity at the central level, with a continued decentralization plan at the sub-national level. DAIL capacity to handle large-scale data entry will be tested during the 1400 (2021) Agriculture Census, and automated data entry should gradually be introduced nationwide until it becomes the
norm by 1403 (2024). As such, manual data entry will become obsolete and DAIL attention on M&E will increase.

F. Conclusions

By 1403 (2024), if the above actions are taken, the ASU will be professional and sustainable, collecting and disseminating quality data in a timely manner. Much emphasis should be placed on the actions mentioned in the immediate and short-term, as any momentum gained through ADCUS will be lost if the political will and financial resources are not secured to continue to build technical capacity, revise the mandate and structure, and to design and implement policies and legislation to ensure the collection of data is completed in a timely manner and strict quality standards are met.
Annexes

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Roadmap for Success
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ANNEX 2: 2012 ADCUS TRAINING OF TRAINERS REPORT
ANNEX 3: 2013 ADCUS PILOT TRAINEE PROGRESS REPORT
ANNEX 4: 2013 ADCUS NATIONAL I TRAINEE PROGRESS REPORT
ANNEX 5: 2013 ADCUS NATIONAL II TRAINEE PROGRESS REPORT
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ANNEX 17: 2012 ADCUS STUDENT HANDOUTS
ANNEX 18: 2013 ADCUS DATA ENTRY TRAINING WORKBOOK
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