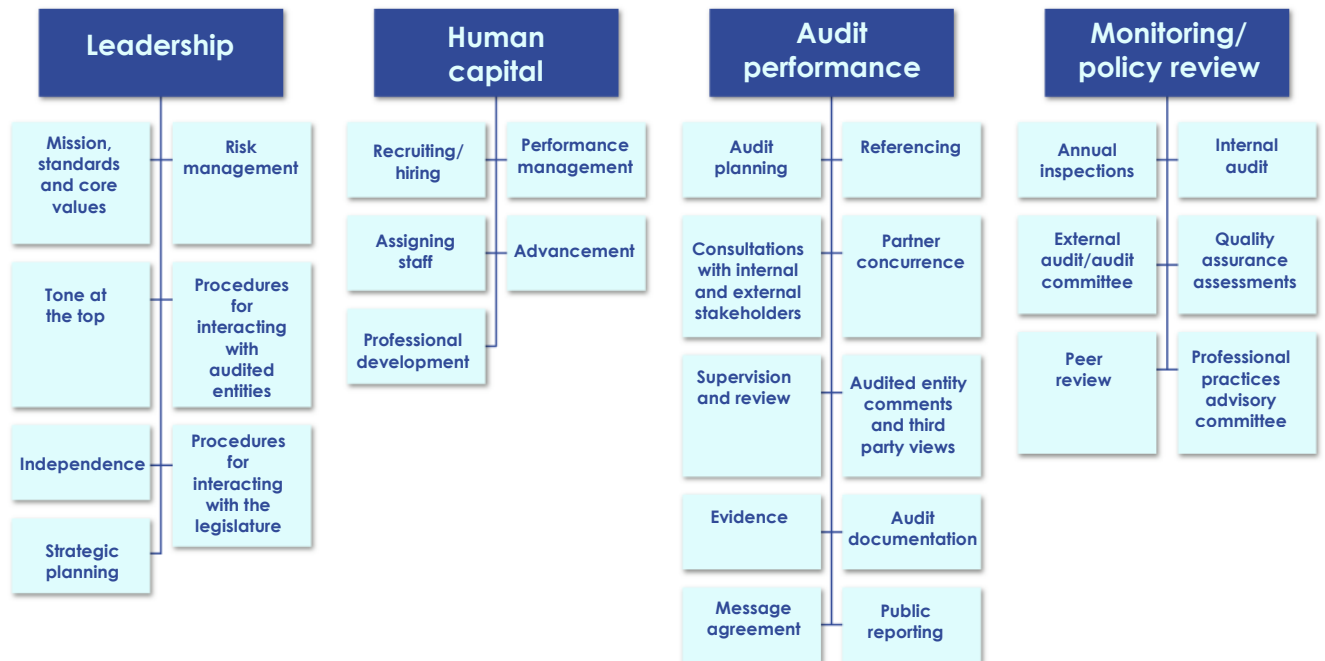


Appendices

Appendix 1: Example of an SAI QA framework for assuring compliance with applicable standards



Source: Adapted from US GAO

Appendix 2: Example of a permission to engage in outside activities form

Sample form: Permission to engage in outside activities¹

1. Name:	2. SAI unit/office:	3. Position/title
4. Outside employer, publisher or organisation:		5. Business or activity:
6. Description of your role, work, or product/services you will provide:		7. Does SAI work in this area? Do you work in this area?
8. Hours to be worked or volunteered?		9. Compensation?
10. Describe business relation, if any, between SAI and outside activity:		
11. If a publication or speech, describe subject and list any related SAI products: Note: The text of any outside publication or prepared speech must be reviewed by the appropriate unit or office before publication or delivery.		
12. As provided in SAI Order 123, I request SAI's permission to engage in the outside activity described above. I will not engage in the activity during my hours of official duty.		
Auditor signature and date:		
13. Supervisor's recommendation ____ Approve ____ Approve with conditions (attach summary of conditions) ____ Disapprove (attach summary of reasons) Signature of supervisor:		
14. Signature of approving official		
Approval expires in 3 years, unless earlier date is entered here:		

¹SAI employees can use this form to request permission to engage in outside activities, which may be required before: (1) engaging in an activity for which compensation, salary or fee is received in exchange for the individual's personal time, effort or talent (excluding reimbursement for travel or other expenses actually incurred in performing the activity or employment); (2) engaging in an activity for which compensation, salary or fee is customarily received, even if the employee performs the activity gratuitously; (3) speaking or writing, even if the outside speaking is or is customarily performed gratuitously; (4) serving as an officer, director, trustee or spokesperson for an association or organisation; and (5) running for elective office, where permitted by SAI order.

Appendix 3: Example of an independence statement

Sample form: Statement of auditor independence

In all matters relating to SAI's audits, the SAI, its employees, and others involved must be free from circumstances that would cause a reasonable and informed third party to doubt their integrity, objectivity or professional scepticism, and must maintain independence of mind and in appearance.

Threats to Independence include, but are not limited to,

- a. Self-interest threat - the threat that a financial or other interest will inappropriately influence an auditor's/investigator's judgement or behaviour.
- b. Self-review threat - the threat that an auditor or audit organisation that has provided nonaudit services will not appropriately evaluate the results of previous judgements made or services performed as part of the nonaudit services when forming a judgement significant to an audit.
- c. Bias threat - the threat that an auditor will, as a result of political, ideological, social or other convictions, take a position that is not objective.
- d. Familiarity threat - the threat that aspects of a relationship with management or personnel of an audited entity, such as a close or long relationship, or that of an immediate or close family member, will lead an auditor to take a position that is not objective.
- e. Undue influence threat the threat that external influences or pressures will impact an auditor's ability to make independent and objective judgements.
- f. Management participation threat the threat that results from an auditor's taking on the role of management or otherwise performing management functions on behalf of the entity undergoing an audit
- g. Structural threat the threat that an audit organisation's placement within a government entity, in combination with the structure of the audited entity will impact the audit organization's ability to perform work and report results objectively.

Completing this form underscores the importance to adhere to standards of independence and objectivity, and must be annually certified by all SAI employees involved in audits. Individuals who are unable to make this certification or believe a threat to their independence that could require safeguards may exist must notify a senior manager involved in their current assignment to discuss their situation.

I certify that there are no impairments to my independence, and I will promptly notify a senior manager on my current assignment if a threat to my independence that may require safeguards should arise.

Signature: _____ Date: _____

Source: Adapted from US GAO

Appendix 4: Example of an audit topic selection matrix

Audit topic selection matrix

The SAI identified four possible audit topics via its strategic planning process:

1. Solid waste management
2. Climate change adaptation
3. Sustainable fisheries
4. Maternity services in public hospitals

The following table illustrates an example of how scoring is assigned, and audit topics prioritised based on selected criteria. (The topic selection criteria and their weights will be chosen in accordance with the ISSAI and based on their relevance and importance to the SAI).

CRITERIA	WEIGHTS	Identified alternative audit topics							
		Topic 1		Topic 2		Topic 3		Topic 4	
		Score	Weighted score	Score	Weighted score	Score	Weighted score	Score	Weighted score
1. Materiality	15	3	45	3	45	2	30	2	30
2. Auditability	15	3	45	1	15	2	30	2	30
3. Possible impact	15	3	45	2	30	2	30	2	30
4. Risks to the SAI	10	3	30	1	10	3	30	3	30
5. Legislative or public interest	10	3	30	3	30	0	0	3	30
6. Relevance	10	3	30	3	30	2	20	3	30
7. Timeliness	5	3	15	3	15	1	5	2	10
8. Previous audit work	5	2	10	3	15	2	10	2	10
9. Other works planned or in progress	5	2	10	1	5	1	5	1	5
10. Request for performance audit	10	3	30	0	0	3	30	2	20
Aggregate weighted score	100		290		195		190		225
Rank			1		3		4		2

Note: Not applicable = 0, Low = 1, Medium = 2, High = 3

Comments:

1. Materiality:.....(state here the reasons/justifications for specific score for each topic)
2. Possible impact:.....
3. Relevance:.....
4.

The above assessment indicates Topic 1 (Solid waste management) as the first priority, Topic 4 (Maternity services in public hospitals) as the second priority, Topic 2 (Climate change adaptation) as the third priority and Topic 3 (Sustainable fisheries) as the fourth priority.

- ✓ Weights are assigned to each criterion and aggregate to 100%. The assignment of weight to each criterion will depend on the importance of the criterion to the SAI's management, the legislature, the government and the public in general.
- ✓ The auditor should exercise professional judgement while assigning a score of 'not applicable', 'low', 'medium' and 'high'. However, their judgement should be backed with appropriate justifications and documentation.
- ✓ The product of 'weights' and 'score' would give the 'weighted score'. The aggregate of weighted score would result to 'aggregate weighted score' for each topic.
- ✓ The topic scoring highest 'aggregate weighted score' can be ranked as the first priority. Hence, it would generally be accorded the highest priority for audit resources, and subsequently be prioritised for audit. The numbers of audit topics chosen to be audited in a given period will depend on the availability of audit resources. The topics chosen will be based on priority determined through rank combined with professional judgement.

Note: This example uses weighted scores, but SAIs may choose not to use weights if all criteria seem to be of equal importance.
Source: IDI/PAS Development Team

Appendix 5: Sample design documents

Stakeholder analysis

During the pre-study, it is critical that you work with stakeholders inside and outside your SAI. Examples of internal stakeholders are methodologists or legal experts. Examples of external experts are subject matter experts that specialise in the subject of the audit. To do this effectively, you may find it beneficial to complete a stakeholder analysis. **Figure 5.1** provides an example of an analysis of stakeholders completed as part of an audit examining issues of domestic violence and violence against women.

Figure 5.1: Sample stakeholder analysis for a performance audit

Stakeholder	Roles	Interests	Priority for the audit
Victim/survivor	<ul style="list-style-type: none"> • Report physical, psychological, sexual, patrimonial and moral aggression. • Request support and shelter (if needed). • Be aware of procedural acts concerning the offender. 	<ul style="list-style-type: none"> • Receive proper care and treatment. • Feel safe. • Go back to normal activities. • Don't suffer violence. • Know that the perpetrator will be punished. 	High
Perpetrator	<ul style="list-style-type: none"> • Seek help to stop being violent. 	<ul style="list-style-type: none"> • Receive proper care and treatment. • Change behaviour and attitudes. 	High
Children/family/dependents	<ul style="list-style-type: none"> • Report physical, psychological, sexual, patrimonial and /or moral aggression. 	<ul style="list-style-type: none"> • Receive proper care and treatment. • Feel safe. • Go back to normal activities. 	Medium
Centre of government	<ul style="list-style-type: none"> • Coordinate and integrate the policies of multiple ministries/departments. • Set out plans to address for SDGs implementation. • Review and refine implementation of policies linked to SDGs. • Assess how well policies are being implemented. • Provide information. • Ensure inclusiveness in implementation plans to 'leave no one behind'. 	<ul style="list-style-type: none"> • Implementation of the nationally agreed targets linked to the SDGs. 	High
Ministry of Women	<ul style="list-style-type: none"> • Formulate and coordinate policies for prevention and protection of women victims of violence. • Prepare national plan on gender equality. • Promote gender equality. • Develop and implement awareness-raising campaigns about violence against women. • Articulate, promote and implement cooperation initiatives with national and international public and private entities to help the implementation of policies for women. 	<ul style="list-style-type: none"> • Decrease of violence against women in the country. 	High
Regional/local gov. institutions responsible for actions of EIPV	<ul style="list-style-type: none"> • Implement plans on gender equality. • Promote gender equality. • Develop and implement awareness-raising campaigns about violence against women. 	<ul style="list-style-type: none"> • Decrease of violence against women in their area. 	High

Ministry of Health	<ul style="list-style-type: none"> • Establish rules, guidelines and protocols for care of victims of IPV. • Provide multidisciplinary teams (nurses, doctors, psychologist, social workers) to care for victims of IPV. • Prevent sexually transmitted diseases to victims of IPV. • Provide services for legal abortion in cases of IPV. • Support technically and financially the organisations responsible for EIPV. 	<ul style="list-style-type: none"> • Ensure to victims of IPV all the necessary support for the restoration of their health. 	High
Ministry of Justice	<ul style="list-style-type: none"> • Establish policies and plans to provide the necessary services to those impacted by IPV (victims, perpetrators, families). • Coordinate the implementation of policies and plans among the institutions responsible for EIPV (police stations, legal system, judges, public prosecutors, district attorneys). 	<ul style="list-style-type: none"> • Good service provided to those impacted by IPV. 	High
Ministry of Education	<ul style="list-style-type: none"> • Promote educational campaigns to raise awareness against IPV. • Review school curriculum to ensure that they are free from gender stereotypes. • Develop capacity programmes for teachers and other professionals responsible for education focusing on gender equality and EIPV. 	<ul style="list-style-type: none"> • Successful education activities to decrease IPV. 	High
Ministry of Social Welfare	<ul style="list-style-type: none"> • Establish policies and plans to provide the necessary services to those impacted by IPV (victims, perpetrators, families). • Support technically and financially the organisations responsible for EIPV. • Coordinate the implementation of policies and plans among the institutions responsible for providing services to those impacted by IPV. 	<ul style="list-style-type: none"> • Ensure the welfare of victims and their families. 	High
Police Department	<ul style="list-style-type: none"> • Ensure police protection to the victim, if needed. • Refer the victim to the hospital, if needed. • Refer the victim to the prosecutor, if she wants to press charges against the perpetrator. • Request protective measures from the judge, if needed. 	<ul style="list-style-type: none"> • Provide good services to victims. • Contribute to EIPV. 	High
National Statistical Office	<ul style="list-style-type: none"> • Develop and maintain a data system for collect, compile and analyse data on IPV. • Receive and compile data about IPV received from states and municipalities. • Assess the integrity of data received. • Develop and communicate reports with statistical information about IPV. 	<ul style="list-style-type: none"> • Provide reliable and good quality statistical information about IPV. 	High
CSOs that work with EIPV	<ul style="list-style-type: none"> • Mobilise society on the issue of IPV. • Claim actions and measure to improve care for victims of IPV and their children. 	<ul style="list-style-type: none"> • Ensure the welfare of victims of IPV. 	Medium

	<ul style="list-style-type: none"> • Inform and educate victims about their rights. • Assist victims of IPV and their children in the areas of education, physical and mental health, employment, housing, access to justice. 		
UN agencies	<ul style="list-style-type: none"> • Mobilise governments and society on the issue of IPV. • Claim actions and measure to improve care for victims of IPV and their children. • Inform and educate victims about their rights. 	<ul style="list-style-type: none"> • Ensure women rights. • Decrease of violence against women. 	Medium
Experts	<ul style="list-style-type: none"> • Conduct studies and researches on EIPV. • Provide qualified information to governments and CSOs on IPV. • Support government agencies in formulating and implementing policies on EIPV. 	<ul style="list-style-type: none"> • Decrease of violence against women. 	High
Women's association (national, province, municipality, village)	<ul style="list-style-type: none"> • Mobilise society on the issue of IPV. • Claim actions and measure to improve care for victims of IPV and their children. • Inform and educate victims about their rights. • Assist victims of IPV and their children in the areas of education, physical and mental health, employment, housing, access to justice. 	<ul style="list-style-type: none"> • Ensure welfare and safety of victims of IPV. 	Medium
Judges	<ul style="list-style-type: none"> • Grant protective measures. • Inform prosecutor about requirement of protective measures. • Order the perpetrator's custody, if needed. • Revoke custody, if applicable. 	<ul style="list-style-type: none"> • Ensure welfare and safety of victims of IPV. 	High
Public prosecutors	<ul style="list-style-type: none"> • Request police protection for victims of IPV. • Request health, education, social welfare and other services for victims of IPV. • Supervise public and private establishments that provide the necessary services to those impacted by IPV (victims, perpetrators, families). 	<ul style="list-style-type: none"> • Ensure welfare and safety of victims of IPV. 	Medium
District attorneys	<ul style="list-style-type: none"> • Provide specific and humanised legal service to victims of IPV. 	<ul style="list-style-type: none"> • Allow access to justice for victims of IPV. 	Medium

Source: IDI's SDGs Audit Model (ISAM)

Initial meeting agenda

Some SAs find that it is helpful to gather internal stakeholders (for example, legal experts, economists, individuals with technical expertise) to participate in an initial meeting at the beginning of the performance audit. During this meeting, you will discuss with your

stakeholders possible approaches, audit questions, design options and potential points of contact who have knowledge of the audit topic. The following is a sample agenda from GAO that can guide this type of meeting.

Sample initial meeting agenda

SAI management	Audit team	Stakeholders
<u>Group 1</u>	Juan Baldéz, Auditor in Charge	<u>General Counsel</u>
Sara Peck, Managing Director	Alessandra Engle, Auditor	Rebeca Sanchez, Legal Expert
Maita Subramanian, Director		
Ling Liu, Audit Manager		<u>Methodologist and Data Analysis Support</u>
		Melissa Ngumo (methodologist)
		Takano Watanabe (data analyst)

Discussion of audit (5 minutes)

Basis for the audit (law, request or other).

Estimated resource requirements.

Risks for weaknesses in performance.

Challenges in meeting the principles of economy, efficiency and effectiveness, including being able to comply with laws and regulations.

Internal controls.

Internal/external coordination (10 minutes)

Summary of meetings with internal stakeholders and audit teams working on related topics or with the audited entity.

Summary of meetings with external stakeholders, including other audit organisations, research groups or those who have examined the topic of the audit.

Known ongoing activities at the audited entity pertaining to the substance of the audit.

Planning to schedule meeting with relevant subject matter experts.

Proposed audit objectives (15 minutes)

What have been the trends in ... ?

To what extent does the division ... ?

How consistently and adequately is the division ... ?

Potential methodologies (15 mins)

Data analysis: Analyse data from the ... fiscal years.

Interviews with knowledgeable officials at ... offices.

Site visits at ... locations.

Discussion of stakeholder roles (10 minutes)

Recap of key decisions made at the meeting and post-meeting action items (5 minutes)

Document decisions.

Hold initial meeting with audited entity.

Source: US GAO

Agenda for initial meeting with the audited entity

Audit teams typically meet with the audited entity prior to starting information and data collection. During this meeting, teams meet with officials to introduce their work and identify

their information needs for the audit, among other things. The following is a sample agenda from the GAO.

Sample agenda for initial meeting with the audited entity

Date/time:

Location:

Dial-in information:

Attendees

Name	Title	Email	Phone
Joan Smith	Director		
Ling Liu	Audit Manager		
Juan Baldez	Auditor-in-Charge		
Alessandra Engle	Auditor		

Source of work: (for example, request from oversight committee, part of the SAI's ongoing audit topic, etc.)

Scope of work: This work includes efforts to assess the management of the government's [describe audit objective and audit questions.] As this audit proceeds, our information needs may expand, and additional information may be needed. We will inform you of these changes as they are identified.

Offices and locations that the SAI has initially identified to conduct work include:

Time frames

- We plan to begin our work immediately and seek to have a draft report completed by ... 20XX.

Source: US GAO

Tools for enhancing subject matter knowledge and analysing risk

SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis

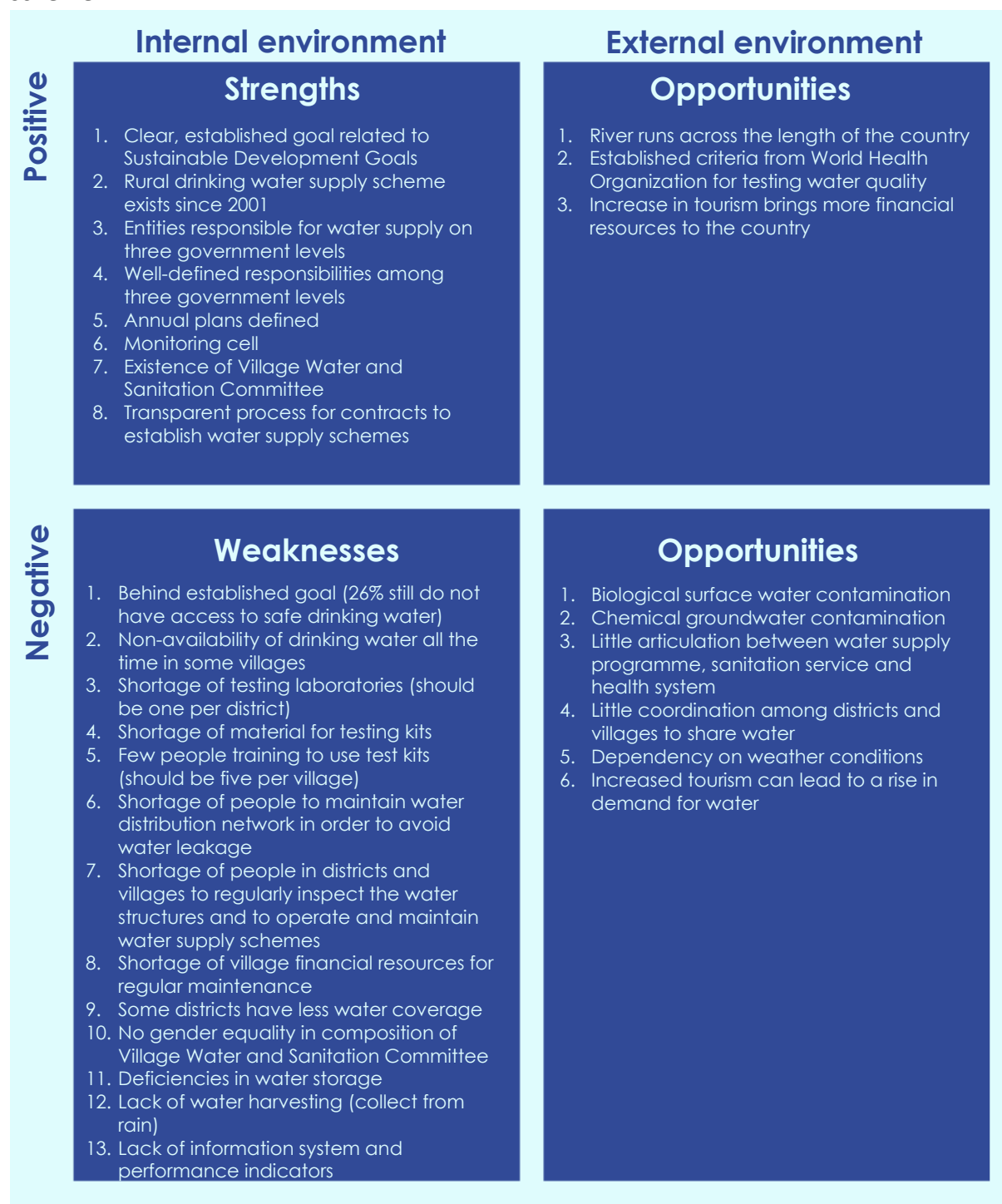
The purpose of the SWOT analysis is to identify and categorise strengths, weaknesses, opportunities and threats associated with the internal and external environments of the audited entity. **Figure 5.2** shows the SWOT template, while **Figure 5.3** provides a sample SWOT analysis.

Figure 5.2: SWOT template

	Internal environment	External environment
Positive	Strengths Identify and list strengths related to the internal environment of the audited entity.	Opportunities Identify and list opportunities that exist in the external environment of the audited entity.
Negative	Weaknesses Identify and list strengths related to the internal environment of the audited entity.	Threats Identify and list threats that exist in the external environment of the audited entity.

Source: IDI/PAS Development Team

Figure 5.3: Sample SWOT analysis for a performance audit on a rural drinking water supply scheme



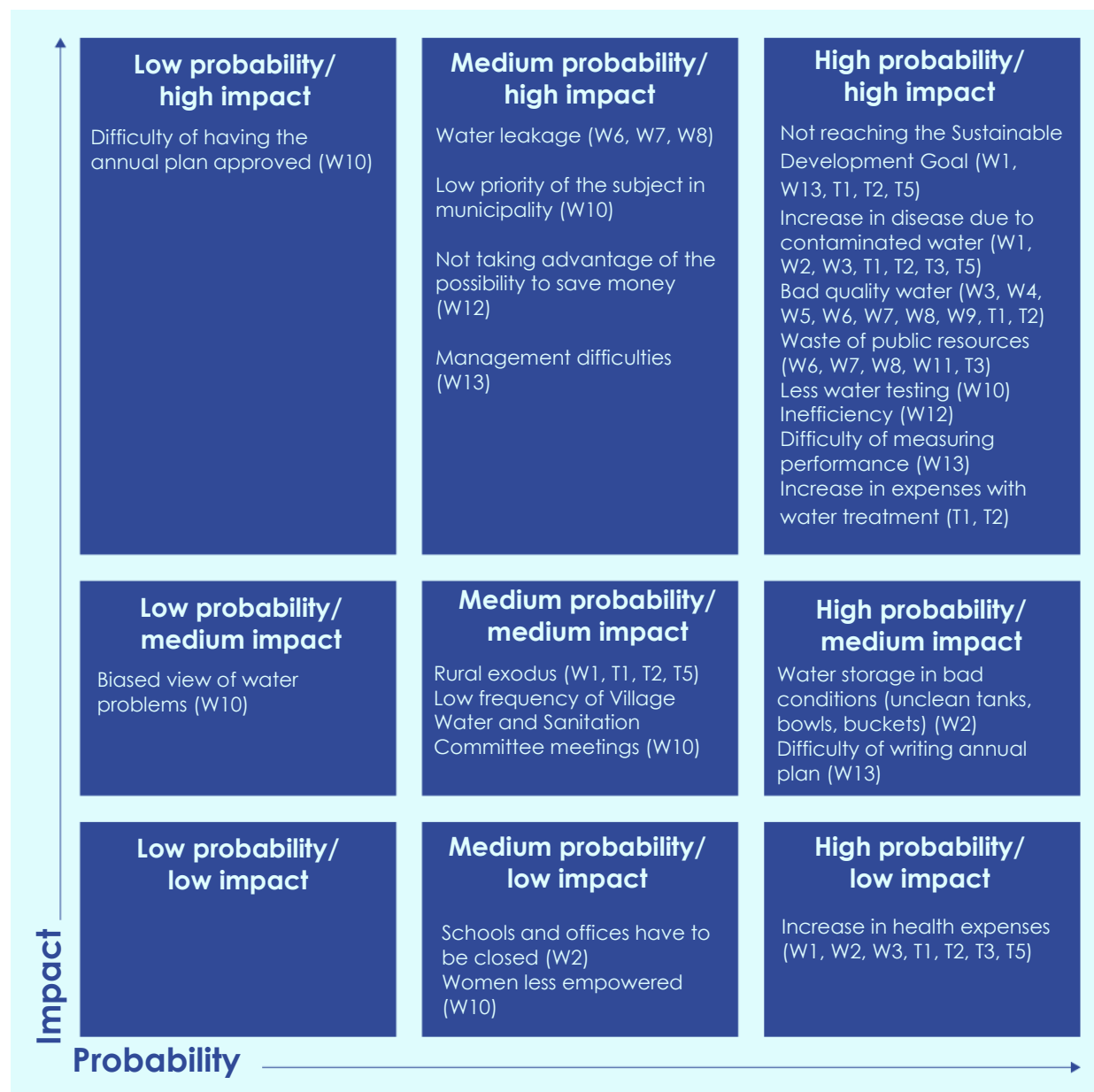
Source: IDI/PAS Development Team

Risk verification diagram (RVD)

To develop the RVD, make a list of the risks associated with the weaknesses (w) and threats (t) you identified in the SWOT analysis, evaluate them for probability and impact,

and then place them accordingly in the diagram. **Figure 5.4** shows a sample RVD based on the rural drinking water supply scheme SWOT analysis above.

Figure 5.4: Sample RVD for audit of a rural drinking water supply scheme



Source: IDI/PAS Development Team

Appendix 6: Design paper checklist

The design paper could be used as an alternative to the design matrix. It allows audit teams to document their audit's design in narrative form outside a structured matrix. The design paper can take multiple forms, depending on the audit's circumstances and team or management preferences. **Figure 6.1** can help ensure your design paper includes the necessary information.

Figure 6.1: Design Paper Checklist

Checklist for design paper

(a) Does the design paper identify either: i) the criteria to be used to evaluate the matters you are auditing; or ii) the planning to be undertaken to identify the criteria needed to evaluate the matters you are auditing?

Examples of possible criteria include: the purpose, goals, policies or procedures prescribed by law or regulation or set by management; technically developed standards or norms; expert opinions; prior years' performance; performance of similar entities; performance in the private sector; or best practices of leading organisations.

(b) Does the design paper include sufficient information to provide context for the audit (for example, the nature of the issue, the significance of the programme, the potential problem or concern and its magnitude, the political environment, key players and potential users of the audit product)?

(c) Does the design paper identify the audit questions?

(d) Does the design paper identify the sources for the information needed to answer the audit questions and where that information will be obtained or how you plan to identify potential sources of data that could be used as audit evidence?

(e) Does the design paper identify how you are going to follow-up on known significant findings and open recommendations identified in previous audit reports that relate to the audit's objectives?

(f) Does the design paper include the overall design strategy or methodology for answering the audit questions and the types of analysis to be used? Methodologies could include case studies, structured interviews, focus groups, file reviews, visual inspections, sampling or use of computer-based data.

(g) Does the design paper document the limitations to the work (for example, difficulty gaining access to records, staffing and travel constraints, or data quality or reliability issues) and their effect on the product?

(h) Does the design paper include what you expect the analysis will allow you to say?

Source: US GAO

Appendix 7: Project schedules and work breakdown structure

Basic project schedule

To complete the basic project schedule, enter tasks and milestones in their general order of occurrence. Tasks may be undertaken concurrently. For each task, identify the start and end dates, along with the audit team member(s) assigned. The project schedule is structured to group tasks by phase, in alignment with the Supreme Auditing Institution's (SAI) audit process. **Figure 7.1** shows a sample basic project schedule. The sample is abbreviated for illustration purposes; the number of tasks and milestones have to be modified to fit the audit plan.

Figure 7.1: Sample basic project schedule

Paragraph	START	END	STAFF ASSIGNED
	DATE	DATE	
Phase 2 – Designing the Audit (structure tasks around SAI internal audit process)			
Task 1 (e.g., conduct pre-study of audit topic)			
Task 2 (e.g., develop proposed audit objective(s), scope, and methodology – and identify criteria)			
Task 3 (e.g., assess design risk)			
Task 4 (e.g., prepare audit plan)			
Phase 2 Milestone (e.g., reach consensus on audit plan)			
Phase 3 – Conducting the Audit (structure tasks around SAI internal audit process)			
Task 1 (e.g., gather evidence)			
Task 2 (e.g., analyze evidence)			
Task 3 (e.g., evaluate evidence for sufficiency and appropriateness)			
Task 4 (e.g., develop audit finding)			
Phase 3 Milestone (e.g., reach consensus on report message)			
Phase 4 – Reporting (structure tasks around SAI internal audit process)			
Task 1 (e.g., draft report)			
Task 2 (e.g., verify facts and obtain audited entity comments)			
Task 3 (e.g., finalise and obtain SAI management approval)			
Phase 4 Milestone (e.g., disseminate report)			

Source: US GAO

When building your project schedule, remember that the plan must be realistic to effectively guide the audit process. Planning the sequence and duration of activities can be challenging, particularly as the audit unfolds and new information or factors emerge. In addition, auditors frequently spend time on non-audit activities, such as other SAI responsibilities, training and holiday. As a result, it is common for auditors to be overly optimistic when estimating the duration of the audit and its key activities, such as information gathering, analysis, report writing and review. The audit risks you identified (see Chapter 4) will provide an added layer of ambiguity that must be accounted for when you allocate to related tasks. For these reasons, it is helpful to avoid being overly detailed when developing your schedule. This will help to limit the time you spend modifying the plan as the audit matures.

Detailed project schedule

A detailed project schedule allows you to closely define and link the work, task dependencies, durations and resources. While you can create and manage a basic project schedule on paper or using basic software applications, a detailed project schedule is more easily managed using project management software, which may be purchased or found open source.

Like the basic project schedule, you complete the detailed schedule by entering tasks and milestones in their general order of occurrence. For each task, identify the duration, resources and any task dependencies by sequentially linking tasks. For example, if an interview must be conducted before completing an analysis, the interview will be linked to the analysis as a predecessor task. However, tasks will often run concurrently or overlap to varying degrees.

While you may enter specific dates for an activity that must occur at a precise time, it is generally preferable to allow the audit duration and activity dates to be shaped by each activity's duration and dependencies, including the predecessor and successor activities is linked. When adding resources, the detailed schedule also allows for the allocation of specific hours, which may aid in more accurately determining the workload associated with tasks.

The sample shown at **Figure 7.2** is abridged to show the possible detail and sequencing of activities in the planning phase only. You can replicate this model for all other audit phases to build a comprehensive project schedule.

Figure 7.2: Sample detailed project schedule for the planning phase

	Name	Duration (days)	Start	Finish	Predecessor task	Resources
1	Audit Name					
2	Phase 2 - Planning	29	1/2/2020	2/12/2020		
3	Conduct pre-study and consider audit approach	11	1/2/2020	2/17/2020		
4	Review previous work on the audit topic and perform background research	5	1/2/2020	1/9/2020		Auditor 1; Auditor 2
5	Discuss the topic with the audited entity	3	1/9/2020	1/14/2020	4	Auditor 1; Auditor 2; Audit Mgr
6	Identify and engage with internal stakeholders	8	1/2/2020	1/14/2020	4 same start (ss)	Auditor 1; Auditor 2; Audit Mgr
7	Determine audit approach	3	1/14/2020	1/17/2020	5	Auditor 1; Auditor 2; Audit Mgr
8	Develop objectives, scope and methodology	13	1/17/2020	2/5/2020		
9	Determine scope and objectives of audit	1	1/17/2020	1/18/2020	3	Auditor 1; Auditor 2; Audit Mgr
10	Determine audit questions	2	1/20/2020	1/22/2020	9	Auditor 1; Auditor 2; Audit Mgr
11	Identify audit criteria	3	1/22/2020	1/27/2020	10	Auditor 1; Auditor 2; Audit Mgr
12	Determine time frames and resource needs	5	1/17/2020	1/24/2020	9ss	Auditor 1; Auditor 2; Audit Mgr
13	Determine audit methodology	7	1/27/2020	2/5/2020	10;11	Auditor 1; Auditor 2; Audit Mgr
14	Assess design risk	5	1/22/2020	1/29/2020		
15	Prepare SWOT analysis and RVD	2	1/23/2020	1/27/2020	13ss-2days	Auditor 1; Auditor 2
16	Determine risk tolerance	2	1/22/2020	1/24/2020	15ss-1 day	Auditor 1; Auditor 2; Audit Mgr
17	Identify steps to mitigate design risk	2	1/27/2020	1/29/2020	15;16	Auditor 1; Auditor 2; Audit Mgr
18	Prepare audit plan	11	1/28/2020	2/12/2020		
19	Prepare design matrix	10	1/28/2020	2/11/2020	10;13ss+1day	Auditor 1; Auditor 2
20	Prepare basic or detailed project schedule	5	1/28/2020	2/4/2020	19ss	Auditor 1; Auditor 2
21	Prepare work breakdown structure (optional)	5	1/28/2020	2/4/2020	19ss	Auditor 1; Auditor 2
22	Obtain management approval of audit plan	1	2/11/2020	2/12/2020	3;8;14;19;20;21	Auditor 1; Auditor 2; Audit Mgr; SAI mgmt

Source: IDI/PAS Development Team

While not required, one benefit of a detailed project schedule is that it will enable you to more easily determine the critical path. As discussed in Chapter 4, the critical path is the path of longest duration through the sequence of activities in your schedule. Establishing the critical path determines the audit's earliest completion date and allows the team and management to focus attention on the activities that could cause audit timelines to slip. Accordingly, it is generally preferable to include the audit's most important activities on the critical path.

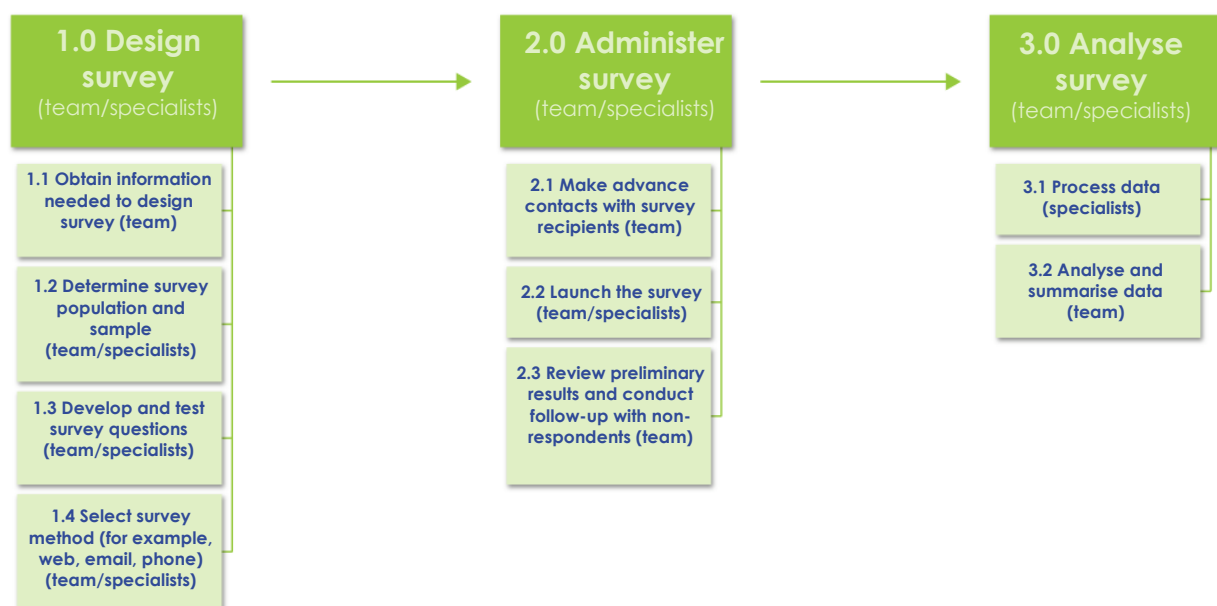
Work breakdown structure

A work breakdown structure is often best used when trying to define the various specific tasks associated with a certain method, such as a survey. It can be developed using basic word processing applications or project management software. To develop the work breakdown structure, create a hierarchical tree structure starting with the main task. You will then subdivide the main task into subordinate tasks, which should in total constitute

fulfilment of the main or 'parent' task. Tasks can be subdivided to the extent necessary and reasonable, culminating in the terminal task – which is the last task that is not subdivided. Responsible parties could also be associated with each task to clearly define who is performing the work.

Figure 7.3 shows a simplified work breakdown structure for conducting a survey. Additional tasks and subtasks can be added to this structure at each level to achieve the desired level of detail. Further, if desired, a smaller work breakdown structure could be placed within a broader one covering the entire design phase or entire audit.

Figure 7.3: Work breakdown structure sample



Source: IDI/PAS Development Team

While these are optional, work breakdown structures can help you better define the scope of effort for a major method and break the work into smaller, more manageable components. By doing so, you may also enable the audit team to more accurately identify and tally costs and labour hours associated with the method.

Appendix 8: Interview guide

Planning the interview

Step 1: Complete pre-interview research:

1. Identify purpose and goals.
2. Develop sufficient background.
3. Identify who will be interviewed.
4. Identify other sources of information needed.

Step 2: Prepare questions:

1. Determine what you want to know.
2. Draft questions.
3. Have your supervisor review the questions you have drafted.

Step 3: Prepare logistics:

1. Schedule the time, place and location of the interview.
2. Inform the person being interviewed about the purpose and goals of the interview.
3. Decide how many staff will attend. Try to have more than one interviewer attend.

Conducting the interview

Step 4: Open the interview:

1. Be punctual and dress appropriately.
2. Consider conducting some small talk, if appropriate, to put officials at ease.
3. Provide introductions, purpose of the interview and background on the audit.
4. Explain desired outcomes.

Step 5: Conduct the interview:

1. Ask the questions you have prepared.
2. Practice active listening.
3. Ask probing questions:
 - Don't just accept statements at face value – ask for elaboration and supporting documentation.
 - Ask what the problems are, why they exist and how the people interviewed would change the audit topic; ask who, what, where, when, how and why.
4. Ask for reasons and examples to support the information provided.
5. Be prepared to ask follow-up questions that may not be on your predetermined list of questions.
6. Follow new lines of enquiry when topics or responses are presented that you did not anticipate.
7. Clarify ambiguous responses.
8. Ask people being interviewed to spell out any acronyms with which you are not familiar.
9. Ask for definitions of key terms and technical jargon.

10. Take detailed notes of the responses to your questions.
11. Maintain a list of documents to be obtained.
12. Maintain control of the interview.
13. Focus the interview on relevant information.
14. Watch for topics that officials try to evade.
15. Respect time limits.
16. Ask for related documentation and referrals.

Step 6: Close the interview:

1. Summarise key information obtained.
2. Explain how the information will be used.
3. Address any questions or comments from the person interviewed.
4. Ask if it would be appropriate to contact the person interviewed with any follow-up questions.
5. Thank the people interviewed for their time and information.

Debriefing the interview

Step 7: Debrief the interview:

1. Did you accomplish what you set out to do? If not, why not?
2. What could you have done differently?
3. Where does the audit team need to go from here?
4. Did everyone on the audit team hear the same information?

Step 8: Complete post-interview activities:

1. Write up the interview record as soon as possible after the meeting (see additional guidance below).
2. Send the draft interview record to your supervisor for review.
3. Obtain identified documentation from the people you interviewed.
4. Schedule follow-up interviews as needed.

Documenting the interview

The purpose of documenting the interview is to: document the facts of what was said in the interview and by whom; and organise these facts to help you develop findings.

1. Prepare the interview record as soon as possible after the meeting to document the testimonial evidence obtained as completely and accurately as possible:
 - Use your notes and the notes from team members who also attended the meeting to record it as accurately as possible.
 - Generally, it is useful for interview records to be organised logically by topic, preferably with the most important material being presented first. Keep in mind that while the record is to be as detailed as possible, it is not a transcript of the interview.
 - Cross-reference all documents referred to in the record.
 - Resolve all open remarks or unanswered questions:

- Use auditor notes to help explain context, circumstances, prejudice or other contributing factors to the interviewees' statements.
 - Define all acronyms and abbreviations when they are first discussed.
2. Keep the audit objective(s) and questions in mind as you prepare the record:
 - Assess whether you are gathering the data you need to address the audit questions.
 - Use headings/sub-headings in the record to organise the information whenever possible.
 - If necessary, ask your supervisor if it would be useful for you to confirm any information you gathered during the interview.
 3. Ask your supervisor if it would be useful for other team members who attended the interview to review your document for accuracy.
 4. Provide the draft interview record to your supervisor for review.

Additional guidance

Interviewing is both a data-gathering tool and a data-analysis tool. When you conduct an interview, you are gathering evidence to support potential findings.

Before the interview

Consider a sequencing strategy for your questions. Although there is no particular sequencing structure for conducting interviews, it may be helpful to anticipate how you will use the information you gather during the interview. The answer to this question may lead you to decide how the interview will be structured. The following are examples you might wish to consider.

Funnel sequence. Begin with the most general questions and then narrow the focus and become more specific with each succeeding question. This method provides more specificity and clarity to general answers that are initially provided. This method may cause the person being interviewed to revise initial statements to provide accuracy.

Inverted funnel sequence. Begin with the specific questions and conclude with the most general questions. This method can help the interviewer develop relationships between the specific issues being discussed and other issues that may be important to the study.

Sensitivity sequence. Consider placing the most difficult or sensitive questions at the end of the interview. This method will help the interviewer maintain an open flow of communication for as long as possible. An alternative is to acknowledge at the beginning of the interview with the person being interviewed that you have a sensitive issue to discuss and decide whether to begin or end the interview with the sensitive issue.

Chronological sequence. Start with the beginning of a process or timeline and follow it through in the order of events. This method is particularly helpful during interviews at the beginning of an assignment when the interviewer is obtaining background information.

Random sequence. No particular order may be needed if all the questions have equal importance.

During the interview

Practice active listening:

- Suppress disruptive behaviour (finger drumming, pencil tapping, fidgeting).
- Do not gaze out of the window or read diplomas or certificates on the wall.
- Do not begin reading documents you are given while the official is speaking.
- Do not let your biases or knowledge obtained elsewhere interfere with the message from the person being interviewed. Keep an open mind.
- Do not jump to conclusions; listen to the person being interviewed. As much as you may be tempted to develop a finding, do not put words into the official's mouth.
- Do not interrupt or debate.
- Do not assume what the person being interviewed meant. Request clarification. Do not monopolise the conversation or try to have the last word.
- Be prepared to adjust your planned set of questions if necessary. However, do not jump ahead. Concentrate on what the official is saying at the moment.
- On key points, summarise or repeat back in your own words what you believe the person being interviewed has just said. Give the official the opportunity to make corrections.
- Show the person being interviewed that you are listening.
- Try to motivate the person being interviewed to communicate more fully.

Avoid common pitfalls:

- **The interviewer uses lots of words but never gets to the point.** The person being interviewed never really hears a question and, therefore, cannot really provide an effective answer.
- **The interviewer asks multiple questions in one.** The person being interviewed is not sure which question to answer. In other cases, the person being interviewed answers one part of the question, but the other parts are lost.
- **The interviewer asks a 'yes/no' question** when an open-ended question may be more appropriate.
- **The interviewer asks leading questions** by identifying the expected answer in the question or by using emotionally-loaded words.

Example of a record of interview

Title	Meeting with audited entity
Purpose	Gather information about ... (details about audit topic)
Contact method	In-person
Contact place	Physical or mailing address of meeting
Contact date	(insert date)
Participants	Audited entity: Jane Doe, title, phone number, email address John Doe, title, phone number, email address Supreme Audit Institution: Audit team member name, title, phone number, email address Audit team member name, title, phone number, email address

Comments/remarks:

We interviewed Jane Doe and John Doe during our site visit to their facility. We asked them questions about their audit entity's participation in the audit topic.

Jane Doe gave a description of the audit entity's relationship to the audit topic. The relationship is: ... She also discussed how long the audit entity had been participating in the audit topic, which is ... amount of time. Jane Doe also described her role and responsibilities at the audit entity, as well as how her roles and responsibilities related to the audit topic. Her role is ... and responsibilities are ... and They are related to the audit topic because John Doe also shared his role and responsibilities at the audit entity, as well as how his roles and responsibilities related to the audit topic. His role is ... and his responsibilities are ... and They are related to the audit topic because

Jane Doe said the audited entity experienced several challenges while participating in the audit topic. The challenges she listed are:

- (1) ... ;
- (2) ... ; and
- (3)

John Doe said that he is most concerned with challenge 2 because Jane Doe said she agrees with Mr Doe's assessment and added that she believes

Source: US GAO

Appendix 9: Example of a record of analysis

Title	Comparison of document X to document Y
Purpose	To document the comparison of the documents, to include similarities and differences
Source	Document X Document Y

Analysis/summary:

Summary of the results of the comparison

Similarities (found in both document X and Y)

1. Documents X and Y use the same descriptive language for the audit topic.
2. Documents X and Y have appendices of templates that organisations can use to document their contributions to the audit topic.

Differences

1. Document X has a two-page section that describes best practices that organisations should follow while participating in the audit topic.
2. Document X has an additional appendix that has examples of how a specific organisation implemented a best practice while it was participating in the audit topic.

Similarities

Methodology: to determine the similarities between both documents, the team conducted a side-by-side comparison and electronically searched each document for key terminology.

Documents X and Y use ... and ... to describe the audit topic

See page 3, third paragraph in document X, for the description of the audit topic. ... was used in this description.

See page 10, fifth paragraph in document Y for the description of the audit topic. ... was used in this description.

Documents X and Y have appendices with the same templates

See page 28 in document X for Appendix IX. The summary paragraph before the template says that organisations can use this template to document their contributions to the audit topic. See the following two pages (29-30) for the template.

See page 35 in document Y for Appendix X. The title of the appendix is 'Sample template for organizations to use to document contributions to ...'. See pages 35-36 for the template.

The templates in Appendix IX of document X and Appendix X of document Y are the same template.

Differences

Methodology: to determine the differences between both documents, the team conducted a side-by-side comparison and electronically searched each document for key terminology.

Document X has a section that describes best practices

Page 13 through 14 of document X contains a section that describes best practices that organisations should follow while participating in the audit topic.

Document Y does not have this section. See pages 2 through 20 for the term 'best practice'.

Appendix 10: Example of a data reliability assessment

Record of data reliability assessment

Complete this form for performance audits.

- Data reliability is a critical part of SAL's work and should be discussed as early as possible in the engagement process, preferably early in the planning phase. A similar discussion should occur as the audit team is conducting analysis and beginning to develop the findings of the audit report when the team and internal stakeholders need to determine whether the evidentiary data are sufficiently reliable, understand the nature of any data limitations and discuss any additional data reliability work that needs to occur.
- This form documents the team's determination regarding the need to conduct an assessment and, as applicable, the data reliability plan and the steps taken to implement the plan, how the data will be used as part of the analytic basis for the findings and conclusions, and any limitations given the intended use of the data.

Audit title:

Preparer:

Technical support provided by (if applicable):

The manager signs this form either after: (1) a determination is made that a data reliability assessment is not needed and Section I of this form has been completed or; (2) all data reliability work is complete and Sections I, II and III of this form have been completed.

Note: If the team subsequently determines that a data reliability assessment is needed after initially determining it was not, the team should annotate Section I accordingly, complete Sections II and III, and add a second signature and date below after the work is complete.

Manager's approval

Manager

Date of signing

Section I: Is a data reliability assessment needed?

Data reliability assessments should be used when any computer-processed data that the team plans to use are expected to materially affect findings (answers to audit questions), conclusions or recommendations. The decision of materiality involves the professional judgement of the engagement team.

While a team needs to document its determination on this form, a team does not need to conduct an assessment of the data as provided in Sections II and III if one of the following conditions applies:

Section II: Continued

SOURCE FOUR: Name/description of data source

Plan for assessing the data reliability of this data source, in accordance with Government Auditing Standards 6.06 (describe plan or provide document references)

Data from this source are expected to be used in the final product in the following manner:

- _____ Sole support for findings, conclusions, or recommendations.
- _____ One of multiple sources of evidence to support the findings, conclusions, or recommendations.
- _____ Contextual or background information that is expected to materially affect the report's findings, conclusions, or recommendations.

Describe data elements assessed from this data source (provide description or provide document reference(s)):

In table below, check all steps taken to determine if the data elements from this source are reliable and include document reference for each of the steps below. Not all steps are required.

Check steps taken	Data Reliability Steps	Document Reference(s) or DM link(s)
	Review of related documentation	
	Interviews with knowledgeable audited entity personnel	
	Electronic or manual data testing for missing data, outliers, obvious errors (could include comparison to published data and logic tests)	
	Review of related internal controls	
	Traced selection or random sample to or from source documents	
	Other (explain)	

Note: If more than four sources are used, block copy this last section as needed and provide the required information for the additional sources.

Section III: How can you use the data?

Summarise the findings on the reliability of data from each data source. Include information on data limitations, if any, and how those limitations will affect how the data will be used in the product (for example, the effect on the findings, conclusions, or recommendations).

Considering the findings on the reliability of data from all sources assessed (check one):

- ☐ All data elements we assessed are sufficiently reliable for this engagement (the limitations, if any, are described above).
- ☐ Some data elements we assessed are sufficiently reliable, and the limitations, if any, are described above. Those data elements that are not sufficiently reliable are excluded from this engagement.
- ☐ No data elements are sufficiently reliable for this engagement, and they are excluded from this engagement.
- ☐ Undetermined reliability, limitations, and their effect are described above.
- ☐ Other (for example, primary objective was to assess the reliability of a system or part of a system) (explain).

Note: After Sections II and III have been completed following a determination that a data reliability assessment was required, the manager reviews the form and approves the data reliability assessment by signing on page 1.

Source: Adapted from US GAO

Appendix 11: Sample data reliability questions for the audited entities

1. When was the data system created, and what is its purpose?
2. How does the data owner use the data?
3. Who are the data system's primary users?
4. How do users access the system?
5. Who has access to enter or update the data?
6. Are there different 'levels' of access to the data?
7. What, if any, training is provided to system users?
8. Is training made available to all users?
9. Have there been any changes to the data system (for example, major system upgrades, changes to new vendors) that would affect the consistency of data during the time period requested?
10. How and where are data collected (for example, manual data entry, form completed by agency representative, entry by entities outside the data owner)?
11. Who is responsible for data entry?
12. How current are the data?
13. How frequently are data entered?
14. What instructions does the data owner provide for data entry, particularly for data fields that are open-ended or otherwise subject to variation in user input?
15. What is known about the consistency of data entry across staff, offices or other units?
16. If data are produced by aggregating across units (for example, states, organisations), are there differences in how the units collect or calculate the data that might result in inconsistencies within the data once aggregated?
17. Are data entries subject to change, either because of quality reviews or other procedures? What unit of analysis does each record in the data represent (for example, an individual, event, household)?
18. What is the structure of the data system?
19. Are data maintained in a 'flat file', or is the data system relational/hierarchical?
20. If the data are relational, what unique identifier(s) are used to link the tables?
21. Are any data (either records or fields) in this dataset fed in from other data systems?
22. If any of these data are fed in from another data system, what quality control features are in place to ensure data are read inaccurately and completely?
23. What procedures ensure the data system consistently captures all data occurrences (records, observations) and all data elements?
24. What procedures are in place to prevent duplicate records being created in the data?
25. Does the system have any edit checks or controls to help ensure the data are entered accurately?
26. Are there electronic safeguards, such as error messages for out-of-range entries or inconsistent entries?
27. Does someone review all, or a sample of, data entries to ensure key fields are accurate and non-duplicative? If reviews take place, how frequently do they occur?
28. What process, if any, is used to track and oversee changes made to the data?
29. Does the data system maintain a history of the changes made to the data, or is historical information overwritten when new data are entered? If data are contained in a spreadsheet: what procedures are in place to ensure data are not inadvertently changed or deleted, and are any formulas in the spreadsheet reviewed for accuracy?
30. What are the procedures for follow-up if errors are found, and who is responsible for correcting them?
31. To the extent you have identified errors in relevant data fields, what were the reasons for the errors and have these issues been addressed?

32. Do systematic reviews or exception reports examine accuracy and present error rates? How frequently?
33. If studies or evaluations of the system have been conducted, what were the results, and how did you address any issues?
34. If applicable, do external users of the data or individuals who are the subject of data records have the opportunity to review and provide feedback on data accuracy?
35. Are any new variables created by recoding existing variables or calculated based on values for existing variables (for example, calculation of number of days between recorded dates or creation of a variable based on age ranges)?
36. Does data system documentation explain how new variables are created or calculated?
37. What modifications, if any, are made to data values in order to protect confidentiality or for other purposes?
38. Do any variables use categorisations developed by another organisation (for example, categories of industry type or race)?
39. Have there been changes to any procedures – including how a data element is defined, entered or maintained – over the period for which data are requested (for example, changes to populations or geographic areas, variable definitions, variable values or categories, data entry instructions, available drop-down values)?
40. If there have been changes to procedures within the time for which data are requested, what steps have been taken to ensure the accuracy and consistency of the data?
41. What is your opinion of the quality of the data, specifically its completeness and accuracy? Are there any data limitations, such as data elements, that are often incomplete or incorrect? How would those limitations affect the intended use of the data?
42. Are there concerns about timeliness or usability of the data?
43. Are there any purposes for which the data should not be used?
44. Have any corrective actions been taken to improve the quality of the data?

Source: US GAO report, *Assessing Data Reliability*, 2019, GAO-20-283

Appendix 12: Sample data collection instrument

This data collection instrument (DCI) is an example for an audit team reviewing a government organisation's agreements with implementing partners/participants.

Data Collection Instrument (DCI)

DCI first completed by: _____

Date first completed: _____

DCI reviewed by: _____

Date of review: _____

A) Basic Information

1. Document name _____
2. Document date _____
3. Originating source _____

B) Details

1. Implementing partner/participant _____
2. Year of agreement _____
3. Single or multi-year agreement? Single ☐ Multi-year ☐ Cannot determine ☐
4. (If a multi-year agreement) How many years did the agreement cover _____

Note: When creating a DCI, consider data field design, formatting and measurement, to include:

- *How, if at all, will the team aggregate the information from each data field in the DCI?*
- *Will the team use one DCI per case or one DCI for all cases?*
- *What staffing and data collection procedures are needed (for example, execution of onsite verification and/or review of the data entry; allow space on the DCI for sign-off or initialling)?*
- *What will be the likely sequence of the data fields on the DCI (which information will be collected first, second, etc.)?*
- *Will the DCI use open-ended data fields to capture additional or unexpected information, such as document titles, additional observations or onsite review of paper documents that the team cannot copy or annotate?*
- *How will the format for each data field match the type of desired information: checkboxes, multiple-choice options (for example, Yes/No), fill-in-the-blank text boxes?*
- *If a paper form is used for initial data collection in the field, how will the data be transferred to an electronic file? In such cases, consider how to match the layout of the paper and electronic forms.*

Source: US GAO

Appendix 13: Sample template for documenting direct observations

Title	Observation of customs inspections conducted by officials of audited entity ...
Purpose	To document observations during customs inspections
Place observed	Airport ...
Activity observed	Number of customs inspections
Date of observation	Type date here
Participants	<u>Audited entity X</u> Official 1 Official 2 <u>Supreme Audit Institution</u> Auditor A Auditor B

Observations/remarks:

We observed a total of ... customs inspections throughout this time frame. Details about these inspections can be found below.

(1) Inspection by Official 1 from 0800-0830:

- Official 1 began by opening the handbag of the individual subject to the inspection. She proceeded to empty the entire handbag's contents onto the table and sort through the items. As she sorted through the items, she systematically consulted a checklist of materials that were not supposed to be brought into the country. She did not find any prohibited items in the subject's handbag.
- She then proceeded to open the subject's suitcase. She sorted through the items found in the suitcase by moving items found on top of others to the side. As she sorted through the items, she also consulted the same checklist that she had used for the handbag. During this search, she found one item that was listed on the checklist. She proceeded to place it to the side and returned to her search of the luggage. After she went through the rest of the suitcase, she asked the subject about the prohibited item that she had placed to the side. She used another separate checklist of questions to query the subject about the prohibited item.

Source: US GAO

Appendix 14: How to conduct a survey

Identify the survey population

You need to identify the population you will survey. In doing so, you need to ensure that the individuals or organisations you identify are the best sources of the information you are hoping to obtain.

You will also need to determine how many individuals or organisations you will survey. For some audits, the target population may be small (for example, an organisation with 100 employees), and thus you can reasonably survey the entire population.

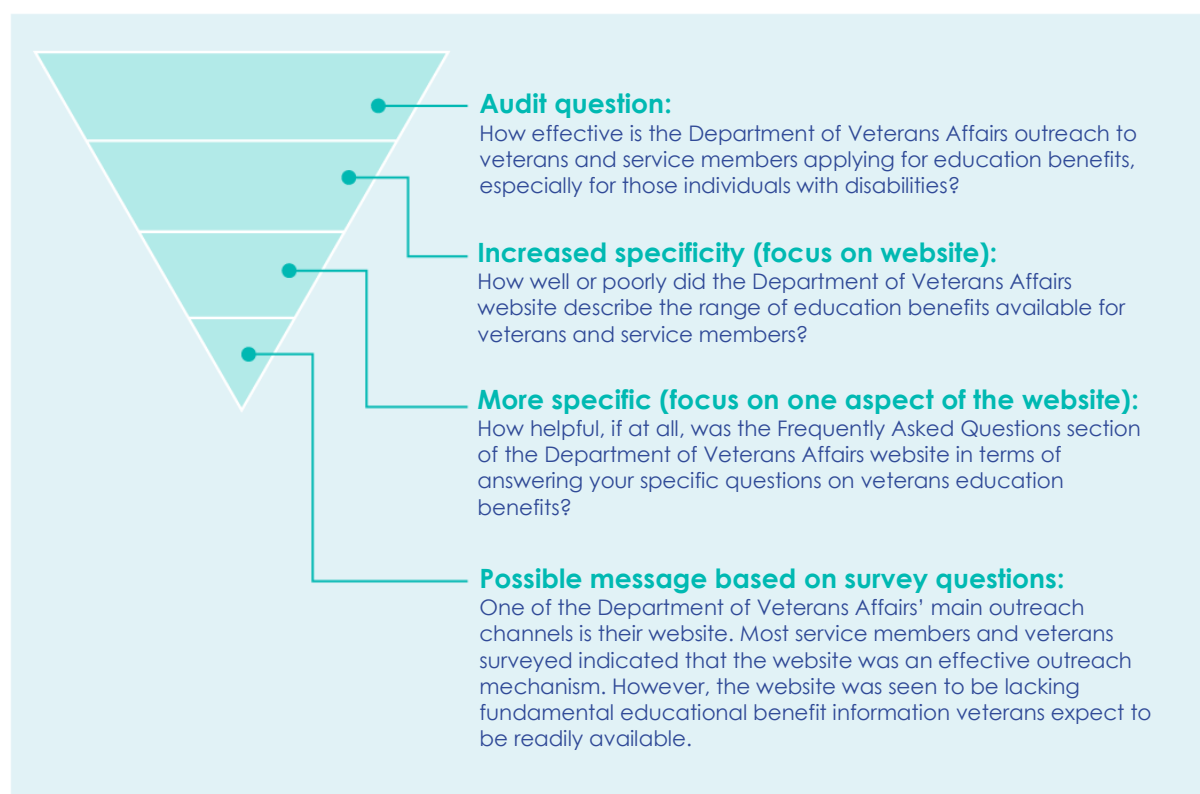
The target population may be very large (for example, one million citizens who receive support from a government entity). In the case of a large target population, you may be able to survey only a sample of the population. In such cases, you need to ensure you have the appropriate sample to use the information obtained for your desired purposes. This can be a complicated process, so it is recommended that you seek the advice of a survey expert.

Developing the survey questionnaire

Developing the right survey questions is critical to obtaining quality information that you can use as evidence. Here are some steps to help you develop a questionnaire:

1. **Determine which portions of your audit question(s) will be addressed using the survey.**
It is important to design the survey to directly assist you in answering your audit questions. If a survey cannot help you do this, consider another method.
2. **Break down those portions of the audit question(s) to a set of topic areas and then develop questions that address topic areas with increasing levels of specificity** (see **Figure 14.1**). Questions can be open-ended or closed-ended, depending on your need for information. Regardless, it is recommended that the questions:
 - be written so that respondents can easily and consistently interpret them – that is, short and simple;
 - be written so that respondents have access to the information needed to answer them;
 - not be overly burdensome for the respondent to answer; and
 - not be written to bias the respondent's answers.

Figure 14.1: An example of developing survey questions from an audit question



Source: US GAO

It is important to pretest, evaluate and refine the survey questions. It is recommended that you:

- Pretest your draft survey questionnaire with members of the targeted survey population and obtain feedback from those individuals about whether they understood the questions.
- Evaluate the responses to the pretested survey to determine whether the questions you are asking will elicit the data you need.
- Consider how the survey responses might allow you to answer the audit questions in the report.
- Refine your questions based on the pretest(s) and evaluation until you are confident that you are asking the right questions of the survey population.

Select a method for administering the survey

There are multiple methods you can use to administer a survey, including face-to-face or telephone interviews, web-based surveys, paper surveys via mail, electronic surveys via email, or in-person self-administered paper surveys.

The population size, your staff resources and how you will contact the survey respondents are all important factors. Here are some questions to consider:

- Does the population have access to internet, telephone and mail service?

- Do you have accurate contact information for the target population for your chosen method of communication (for example, phone numbers, email addresses, mailing addresses)?
- Do members of the population have any challenges with reading, vision, hearing or mobility that could affect their ability to take the survey via different methods?
- How large is the target population, and do you have sufficient staff resources to consider an interviewer-administered option?

The method you choose will affect the response rate to your survey if the target population cannot easily respond to the survey or if you do not have the staff resources to administer it as planned.

Documenting the survey results and methodology

You will need to carefully document how you conducted the survey, the survey responses and any analysis performed on the survey results. This is important because you will need to provide support for all statements in the final report based on evidence obtained from the survey. Additionally, you will need to provide information in the audit report about the survey methodology, quality of the data obtained from the survey, and the strengths and weaknesses in the survey so that those who read your report understand how to interpret the survey results you provide.

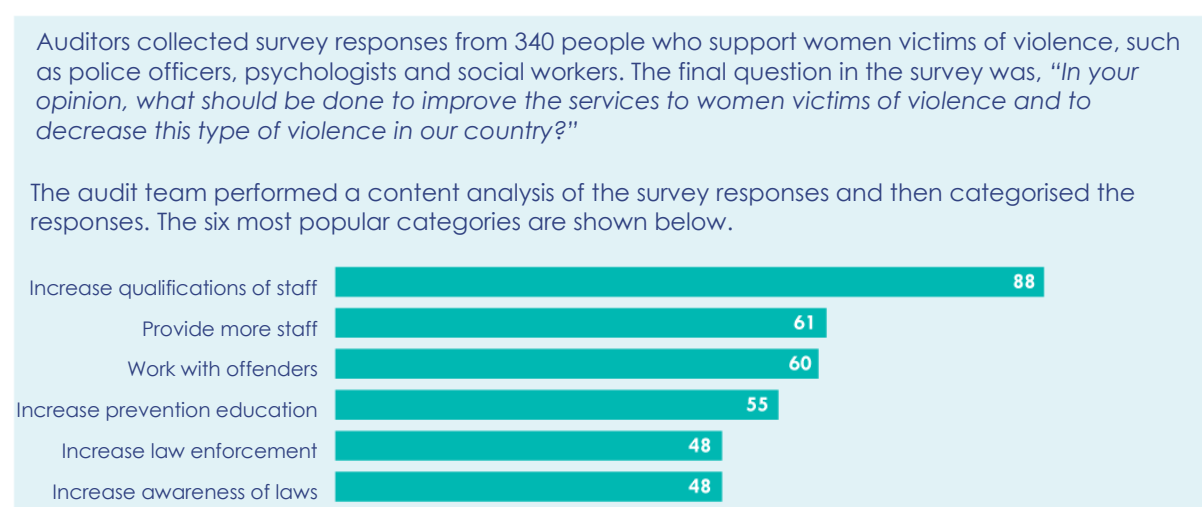
Conducting an effective survey will require more guidance than this handbook can provide. Remember to seek out assistance from an expert before attempting to conduct a survey.

Appendix 15: Content analysis

Content analysis is a qualitative method for structuring and analysing complex qualitative data and turning it into quantitative data. It is sometimes described as a process of data reduction. The goal is to systematically sort, focus and simplify data into a limited number of themes or content categories that can be summarised. Because it can be time-intensive, it may not be as commonly used by some SAIs as some of the other qualitative methods referenced in this handbook, but it can be useful in certain situations.

The qualitative data used as a starting point for a content analysis could include the audit entities' policy documents, interview transcripts, newspaper articles, focus group transcripts, claim files, or reports. For example, you could use it to categorize and quantify the responses provided by interviews or determine the frequency with which different types of events were reported in claims files. Content analysis can also be a useful method if you have a large set of raw data that you need to turn into useable evidence, such as survey responses. The example in **Figure 15.1** is adapted from a content analysis of survey responses conducted during a problem-oriented SAI performance audit.

Figure 15.1: Content analysis used in a performance audit of actions taken to confront domestic violence against women



Source: Adapted from the Performance audit report: Ações de enfrentamento à violência doméstica e familiar contra as mulheres. (Actions to face domestic and familiar violence against women), 2012. SAI Brazil

There are a number of potential benefits of conducting content analysis, including that the categories or themes that result from the content analysis can be summarised and reported in ways that are easily understood by readers.

Content analysis that produces reliable data can be time and labour intensive, depending on the complexity of the analysis. It is important to conduct content analyses systematically, so

talk to a methodologist or other internal stakeholder with subject matter expertise, or consult academic literature, for additional guidance, as needed.

Appendix 16: Sample template for documenting a summary

Title	Summary of perspectives on the sufficiency of training for customs inspectors
Purpose	To provide a summary for evidentiary purposes
Work performed	<p>During this audit, we conducted multiple interviews to gather information on the sufficiency of training for airport customs inspectors. Specifically, we interviewed:</p> <ul style="list-style-type: none"> • Administrators of the training program at the Customs Inspections Academy. • Instructors at the Customs Inspections Academy. • Officials who developed the training curriculum for customs inspectors. • Customs inspectors at three airports. • Supervisors of customs inspectors at three airports. <p>We asked each of these groups for their perspectives on 1) length of the initial training; 2) content of the initial training; and 3) on-the-job training after instructors begin working. This summary compiles responses of the officials relative to each of these audit topics.</p>

Summary of responses

(In the table below, the audit team would compile the responses of officials on these audit topics. See examples below.)

Length of the initial training	
Administrators	The administrators of the training program at the Customs Inspections Training Academy said that the length of training program is long enough to provide inspectors with a base level of training proficiency. The administrators said that the Academy does not have enough funding to extend the training. (See document xxxx, pg. 3)
Instructors	The instructors at the Customs Inspections Training Academy said that the initial training is not long enough. At minimum, the instructors said that they would need another two weeks to allow for time for more hands-on exercises and time for review. The training calendar now is too rushed, and some trainees fall behind. (See document XXXX, pg. 2)
Curriculum developers	(add summary of responses)
Custom inspectors	(add summary of responses)
Customs supervisors	(add summary of responses)
Content of the initial training	
Administrators	The administrators of the training program at the Customs Inspections Training Academy said that the content of the initial training is sufficient, but there may be areas where it can be improved. In fact, the

	Academy is beginning a review of the training curriculum in March 2021. It has a goal of reviewing the curriculum and making any needed revisions every two years, but this does not always occur. The last review and update was completed in August 2017. (<i>See document XXXX, pg. 7</i>)
Instructors	(add summary of responses)
Curriculum developers	(add summary of responses)
Custom inspectors	(add summary of responses)
Customs supervisors	(add summary of responses)
On-the-job training	
Administrators	The administrators of the training program at the Customs Inspections Training Academy said that the Academy has not established formal guidance on on-the-job training. They rely upon the supervisors to determine what the inspectors need and provide it. (<i>See document xxxx, pg. 9</i>)
Instructors	(add summary of responses)
Curriculum developers	(add summary of responses)
Custom inspectors	(add summary of responses)
Customs supervisors	(add summary of responses)

Source: IDI/PAS Development Team

Appendix 17: Example of a regression analysis

The simplest form of regression analysis is often referred to as correlation analysis. This type of analysis may be useful to you if you are trying to determine how two different variables are related to one another – that is, the degree to which changes in one are associated with changes in the other.

There are three general steps involved in a correlation analysis:

1. **Development of a scatter diagram**, which plots values of the dependent variable 'Y' and independent variable 'X' on vertical and horizontal axis, respectively. The dependent variable is the variable that is being predicted or estimated, and the independent variable is the variable that provides the basis for estimation.
2. **Calculating the correlation coefficient (r)**, which measures the correlation between the variables. The closer the correlation coefficient is to 1 or -1, the more the two variables are correlated. In a perfect positive or negative correlation, all the dots in the scatter plot would form a straight line.
3. **Calculating the coefficient of determination (r^2)**, which measures the extent to which the variation in the dependent variable can be explained by variations in the independent variable.

The following example was adapted from an audit conducted by the Supreme Audit Institution (SAI) in Bhutan. It will provide you with a simple application of this type of analysis to illustrate its potential usage.

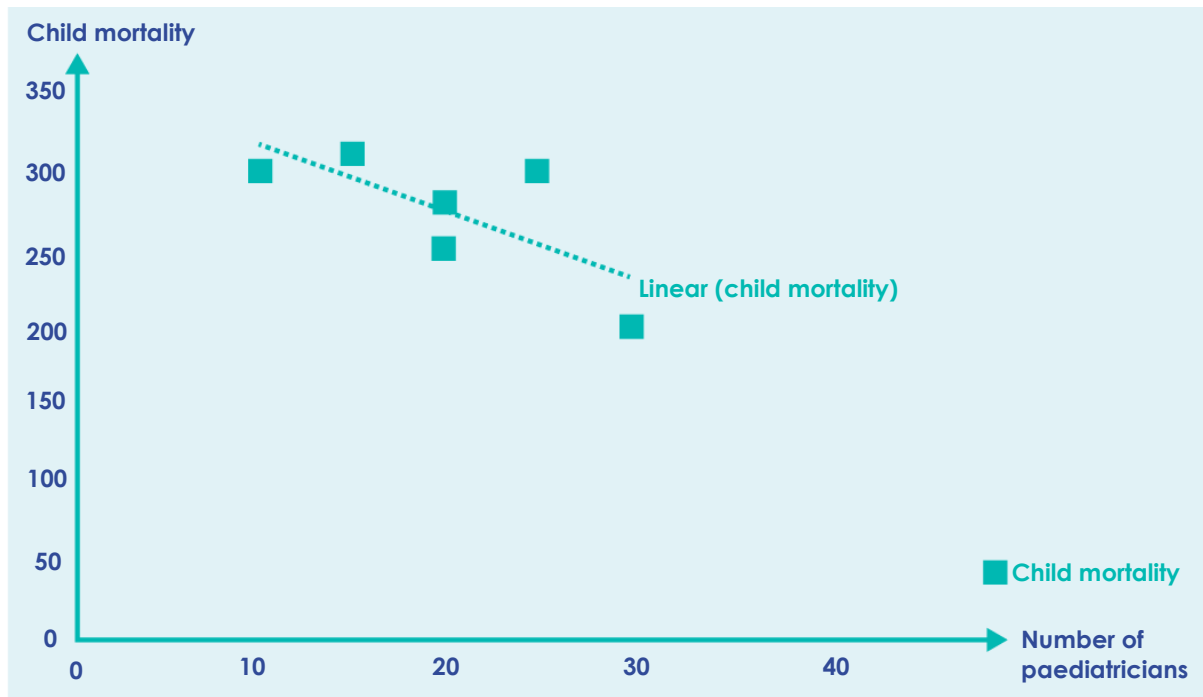
Example: The SAI conducted an audit that examined the relationship between the number of paediatricians and child mortality, based on the goal of the health sector to reduce infant mortality. Here are the data the audit team used:

Year	2003	2004	2005	2006	2007	2008
Number of paediatricians	10	15	20	20	25	30
Child mortality	300	310	280	251	300	200

Source: SAI Bhutan

The data set produced the scatter diagram in **Figure 17.1**.

Figure 17.1: Scatter diagram



We can see from this linear trend line that there is some correlation between child mortality and the number of paediatricians. Still, we want to understand how closely the two variables are correlated. To do this, we need to calculate the correlation coefficient, or 'r'. It can be done using the 'CORREL' function on a spreadsheet program.

The 'r' value is -0.712. This means there is a strong negative correlation between the number of paediatricians and child mortality – that is, as the number of paediatricians increases, child mortality decreases.

Just because there is a strong correlation, though, does not mean there is causality. We need to also calculate the coefficient of determination, or 'r²', to determine how much of the variation in child mortality can be explained by the number of paediatricians.

In this case, $r^2=0.507$, or 50.7%. So, in our example, 50.7% of the variation in child mortality is explained by the number of paediatricians available, and 49.3% of the variation is due to other factors.

As you can see from this example, there are many factors that influence changes in a dependent variable like child mortality. More complex modelling and regression techniques that address or control other variables would be necessary for the audit team to fully understand the variables affecting child mortality.

Appendix 18: Sample GAO highlights page

GAO Highlights

Highlights of [GAO-20-129](#), a report to congressional requesters.

Why GAO Did This Study

The federal government annually spends over \$90 billion on IT. Despite this large investment, projects too frequently fail or incur cost overruns and schedule slippages while contributing little to mission-related outcomes. Effectively implementing workforce planning activities can facilitate the success of major acquisitions.

GAO was asked to conduct a government-wide review of IT workforce planning. The objective was to determine the extent to which federal agencies effectively implemented IT workforce planning practices. To do so, GAO compared IT workforce policies and related documentation from each of the 24 Chief Financial Officers Act of 1990 agencies to activities from an IT workforce planning framework GAO issued. GAO rated each agency as having fully, substantially, partially, minimally, or not implemented for each activity. GAO supplemented its reviews of agency documentation by interviewing agency officials.

What GAO Recommends

GAO is making recommendations to 18 of the 24 federal agencies to fully implement the eight key IT workforce planning activities. Of the 18 agencies, 13 agreed with the recommendations, one partially agreed, three neither agreed nor disagreed, and one disagreed with the findings and provided evidence which led to a modification to its recommendation, as discussed in this report. For all of the remaining recommendations, GAO continues to believe that they are all warranted.

View [GAO-20-129](#). For more information, contact Carol C. Harris at (202) 512-4456 or HarrisCC@gao.gov

OCTOBER 2019

INFORMATION TECHNOLOGY

Agencies Need to Fully Implement Key Workforce Planning Activities

What GAO Found

Federal agencies varied widely in their efforts to implement key information technology (IT) workforce planning activities that are critical to ensuring that agencies have the staff they need to support their missions. Specifically, at least 23 of the 24 agencies GAO reviewed partially implemented, substantially implemented, or fully implemented three activities, including *assessing gaps in competencies and staffing*. However, most agencies minimally implemented or did not implement five other workforce planning activities (see figure).

Agencies Overall Implementation of the Key Information Technology (IT) Workforce Planning Activities

Set the strategic direction for IT workforce planning

Establish and maintain a workforce planning process



Develop competency and staffing requirements



Analyze the IT workforce to identify skill gaps

Assess competency and staffing needs regularly

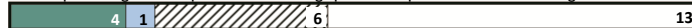


Assess gaps in competencies and staffing



Develop strategies and implement activities to address IT skill gaps

Develop strategies and plan to address gaps in competencies and staffing

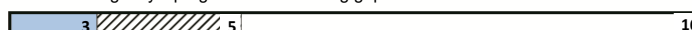


Implement activities that address gaps



Monitor and report progress in addressing IT skill gaps

Monitor the agency's progress in addressing gaps

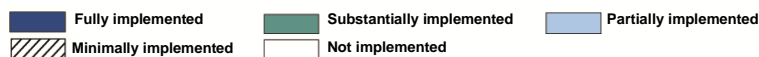


Report to agency leadership on progress in addressing gaps



0 6 12 18 24

Number of agencies implementing the activity



Source: GAO analysis of agency information technology workforce planning policies and documentation. | GAO-20-129

Agencies provided various reasons for their limited progress in implementing workforce planning activities, including competing priorities (six agencies) and limited resources (three agencies). Until agencies make it a priority to fully implement all key IT workforce planning activities, they will likely have difficulty anticipating and responding to changing staffing needs and controlling human capital risks when developing, implementing, and operating critical IT systems.

United States Government Accountability Office

Appendix 19: Sample European Court of Auditors executive summary

Executive summary

I The Common Agricultural Policy has a long history of using satellite or aerial images for checking area-based aid, which nowadays accounts for almost 80% of the EU funding provided to agriculture and rural development. While these images usually have a very high spatial resolution, before 2017, they were not available with sufficient frequency to allow verification of activities taking place on agricultural land throughout the year (e.g. harvesting).

II Since March 2017, the EU-owned Copernicus Sentinel satellites 1 and 2 have been providing frequent, freely available, high-resolution images, with the potential to be a game-changer in Earth observation technology for monitoring agricultural activities. Since the images are taken frequently, automated processing of time series data throughout the growing season makes it possible to identify, without human intervention, crops and monitor certain agricultural practices on individual parcels (such as tillage, mowing). Since 2018, paying agencies can use Copernicus Sentinel data in place of traditional checks based on field inspections.

III According to the commission and CAP stakeholders, Copernicus Sentinel data and other technologies for monitoring area aid have significant potential benefits for farmers, administrations and the environment. Our audit examined whether the commission effectively encouraged widespread use of these new technologies and whether Member States had taken adequate action to deploy them. We looked at the Copernicus Sentinel satellite data, images taken by drones, and geotagged images. An assessment of the progress made in the use of new imaging technologies is especially relevant now, as the results of our audit could be applied in the post-2020 CAP.

IV We found that both the commission and some Member States have taken action to unlock the potential benefits of the new technologies. The commission promoted new technologies through many conferences and workshops and provided bilateral support to many paying agencies. 15 out of 66 paying agencies used the Copernicus Sentinel data in 2019 to check aid applications for some schemes and some groups of beneficiaries ('checks by monitoring'). Our audit revealed that many paying agencies consider obstacles to wider use of the new technologies.

V Although the commission has attempted to remove or mitigate some of these obstacles, paying agencies expect further guidance from the commission to make the right decisions and reduce the risk of future financial corrections.

VI Moving to checks by monitoring requires significant changes to IT systems, specific resources and expertise. The commission has taken initiatives to facilitate access to Sentinel data and digital cloud processing services, but the take-up by paying agencies for operational purposes is still low.

VII With regard to rural development schemes and cross-compliance, we observed limited use of new technologies for both compliance and performance monitoring of climate and environmental requirements. We also conclude that the proposed set of post-2020 CAP performance indicators is largely not designed for direct monitoring with Sentinel data.

VIII We recommend that the commission provide incentives to Member States to use checks by monitoring in the post-2020 CAP as a key control system. We further recommend that the commission make better use of new technologies for monitoring environmental and climate requirements.

Appendix 20: Description of an audit methodology in a performance audit report

To examine the characteristics of FAA-certificated mechanics and repairmen, we analysed cumulative FAA data as of December 2018 for demographic characteristics such as age and sex.⁴ To examine the employment characteristics of aviation maintenance workers—such as wages and unemployment—we analysed Bureau of Labor Statistics (BLS) Current Population Survey data for selected labor market indicators from 2013 through 2018. We reviewed all 50 states' most recent Workforce Innovation and Opportunity Act plans.

To describe stakeholder support and assess stakeholder coordination on efforts to develop this workforce, we interviewed agency officials from FAA and the Departments of Labor (DOL), Education (Education), Defense (DOD), and Veterans Affairs (VA) about related data, programmes, and funding for this workforce. We selected these agencies based on a prior report in which we identified them as relevant to the aviation workforce.

To describe examples of stakeholder coordination, we also conducted semi-structured interviews with a non-generalizable sample of six stakeholders, including employers, Aviation Maintenance Technician (AMT) Schools, unions, industry associations, and workforce training organizations selected based on stakeholder recommendations, among other factors, and conducted two site visits. We visited an AMT School that serves the District of Columbia area and an aviation repair station, a major commercial airline, and a state workforce organization in Georgia. We selected these stakeholders and conducted these site visits to obtain a range of perspectives based on factors such as type of work performed and geographic location. In addition, we reviewed relevant agency documents, such as FAA's 2019-2022 strategic plan and its Aviation Workforce Steering Committee charter.

To describe what progress FAA has made on updating training curriculum requirements for AMT Schools and certification testing standards for mechanics, we reviewed relevant federal laws, regulations, and FAA documents and interviewed FAA officials.

We conducted this performance audit from January 2019 to February 2020 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix 21: Illustration of an action plan and a follow-up desk review template¹

Action plan

Title of performance audit: Performance audit on elimination of intimate partner violence against women (EIPVAW)

Name of audited entity: Secretary of Policies for Women

Date: 20/11/2017

Recommendation	Actions planned by the audited entity	Responsible party within the audited entity	Deadline for implementing recommendation	Expected benefits of implementation (quantified if possible)
Conduct awareness-raising campaigns about the importance of EIPVAW.	Plan and deliver a campaign through social media.	Ms Shirley Smith.	September 2018.	Decrease of intimate partner violence against women.
	Plan and deliver a campaign for TV.	Mr Juan Perez.	December 2018.	
Intensify campaigns about EIPVAW aimed at males.	Plan and deliver a campaign through social media.	Ms Shirley Smith.	September 2018.	Help in changing men's mentality about violence against women.
	Plan and deliver a campaign for TV.	Mr Juan Perez.	December 2018.	Decrease of intimate partner violence against women.
	Plan and deliver a campaign during sport matches.	Mr Abdalla Farid.	December 2018.	
Coordinate with the Ministry of Education to include gender themes in the school curriculum, especially issues related to domestic violence.	Contact stakeholders in the Ministry of Education.	Ms Caterina Piazza.	March 2018.	Decrease of intimate partner violence against women.
	Plan the curriculum changes with the Ministry of Education stakeholders.	Ms Caterina Piazza.	September 2018.	
	Deliver training for teachers about the changes in the curriculum.	Mr Joshua Pereira.	December 2019.	
Coordinate with the Ministry of Justice to intensify awareness raising and training of police officers who attend the victims.	Contact stakeholders in the Ministry of Justice.	Mr Juan Perez.	March 2018.	Improvement in service delivery by the police officers to victims of domestic violence.
	Plan and deliver a campaign through internal social media.	Ms Shirley Smith.	September 2018.	
	Deliver training for police officers.	Ms Chimamanda Nye.	December 2019.	

Source: IDI/PAS Development Team

¹ This is an illustration with sample recommendations. It is not intended to be exhaustive. An actual performance audit will likely contain additional recommendations.

Follow-up desk review template

Illustration using a performance audit on elimination of intimate partner violence against women (EIPVAW)

Recommendation	Action taken by the audited entity (as per the action plan)	Status/progress of actions	Reasons for non-completion of action by the audited entity	Impact
Conduct awareness-raising campaigns about the importance of EIPVAW.	Plan and deliver a campaign through social media. Plan and deliver a campaign for TV.	Fully implemented. Not implemented.	The cost is too high. The Secretary has no budget for that.	The Secretary of Policies for Women contracted a consultant to measure the impact of the campaigns. The study will be concluded in July 2021. The impact has to be verified by the SAI during next follow-up.
Intensify campaigns about EIPAW aimed at males.	Plan and deliver a campaign through social media. Plan and deliver a campaign for TV. Plan and deliver a campaign during sport matches.	Fully implemented. Not implemented. Fully implemented.	The cost is too high. The Secretary has no budget for that.	The Secretary conducted surveys after several football, cricket and basketball matches where the campaign took place. The preliminary analysis shows that the campaign was successful in raising awareness about EIPAW among the respondents.
Coordinate with the Ministry of Education to include gender themes in the school curriculum, especially issues related to domestic violence.	Contact stakeholders in the Ministry of Education. Plan the curriculum changes with the Ministry of Education stakeholders. Deliver training for teachers.	Fully implemented. Implemented in some respects. Not implemented.	The group assigned for the task is developing the changes, but there are delays due to other urgent assignments. Not due. To be verified in next follow-up.	Since the changes in the curriculum were not made yet, it is too early to evaluate the impact of the actions.
Coordinate with the Ministry of Justice to intensify awareness raising and training of police officers who attend the victims.	Contact stakeholders in the Ministry of Justice. Plan and deliver campaign through internal social media. Deliver training for police officers.	Implemented. Implemented. Implemented in some respects.	The training is completed only for police officers working in major cities of the country. The others are yet to be trained.	The Secretary conducted a study to compare attendance by police officers trained and not trained and concluded that the training, so far, was effective.

Source: IDI/PAS Development Team