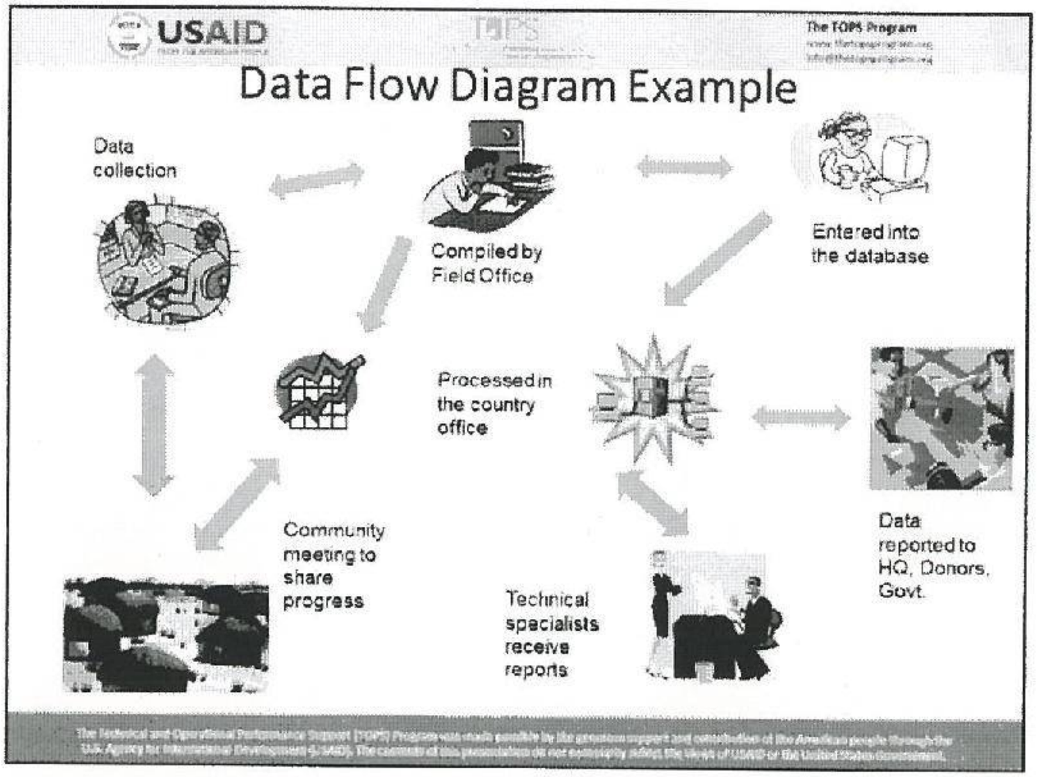


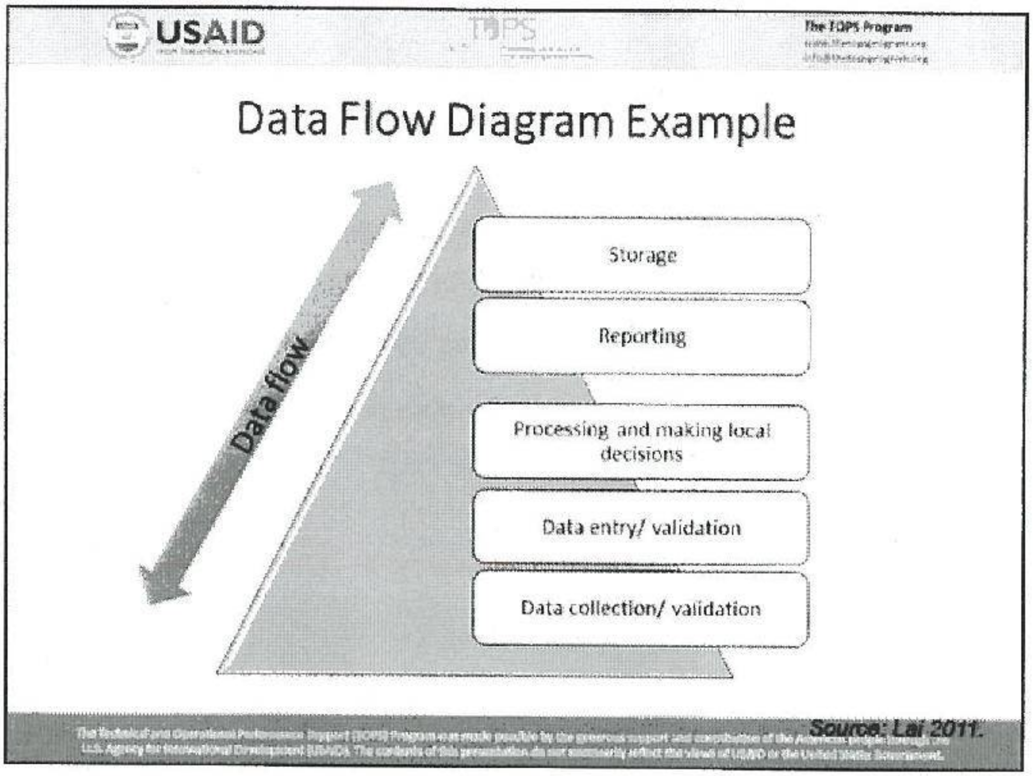
At the time of collection, data may be recorded on physical media, such as activity registers, beneficiary logs or cards, or M&E data collection sheets, which are maintained at activity sites or field offices. These data, in raw or aggregated form, can be transferred via reports or data sets to a regional or national office on a regular basis (e.g., monthly, quarterly and preferably, more frequently than annually) for further processing and preparation for reports. In other cases, field agents enter information into electronic interface devices (PDAs, tablets, laptops), from which data are transferred or go directly into central data bases managed by the M&E team or activity managers. Aggregation and other data processing should follow standardized, well-documented methodologies.

The data flow diagram should identify which data are entered and maintained in beneficiary data bases and how information from the data bases feed into annual reporting.

Data flow diagrams help your team understand :

- Whether data are collected and processed at the right time. Are data forwarded in a timely manner to the next level of the system. Where do bottlenecks occur?
- What needs to take place before data and results are communicated?
- Existence and timeliness of feedback mechanisms.
- Whether existing resources are sufficient to collect, analyze, report and communicate your data.

There are additional data flow diagrams on the following sheets in your notebook to provide some other illustrations.



Note that there are possible feedback loops for any of these processes – for example, with the community, field monitors, other stakeholders, etc.

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Part VII: 5.7. Beneficiary database

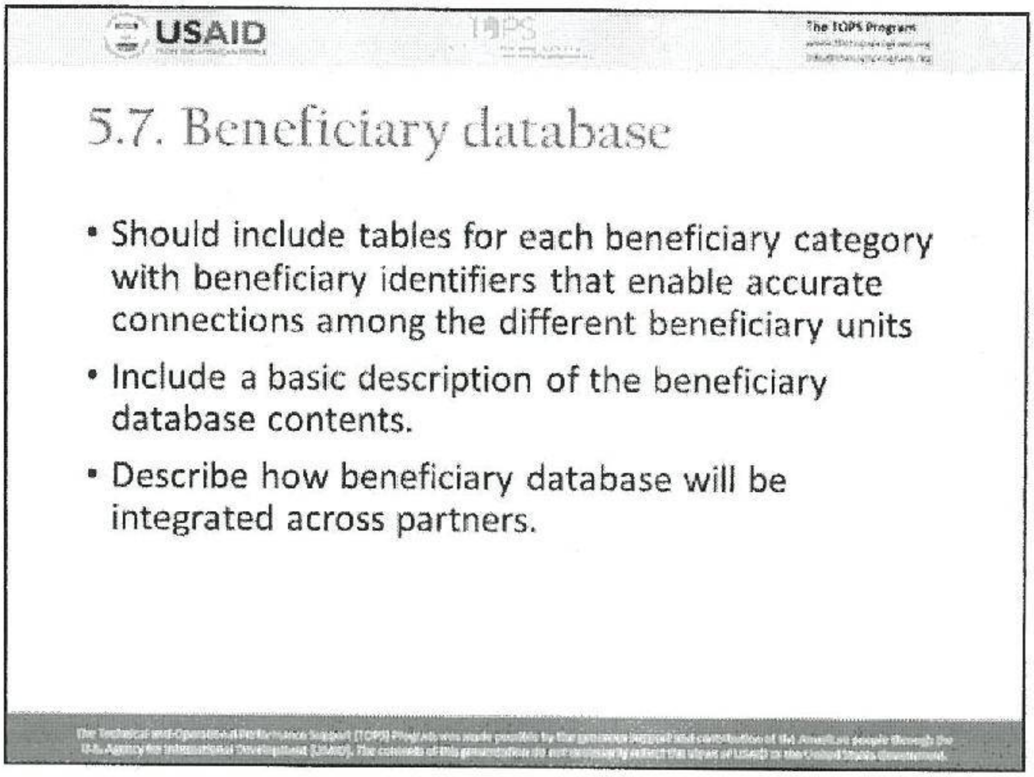
- FFP strongly recommends that projects create and maintain a database to capture and calculate all indicator values for FFP annual reporting and project specific indicators.
- A database should allow for projects to track indicator and beneficiary information to all of the required levels of disaggregation.
  - For instance, databases should include unique identifiers that allow projects to track beneficiaries to the individual, household and community levels.

Use software that works with the staff capacity your M&E system (Excel; Access; SPSS; Stata....all are fine.).

The tracking tools and resulting data base template must be shared with all project partners to ensure a unified system that allows all project data to be integrated. The project should provide training to any M&E staff, including partners, who will use the tracking tools and data base to ensure all are clear on how to use the them.

It is often easier to create data entry forms so that the information is both collected and then entered in the same way. Whoever is your system administrator should be able to set up the data base to help maintain quality over the data entered.

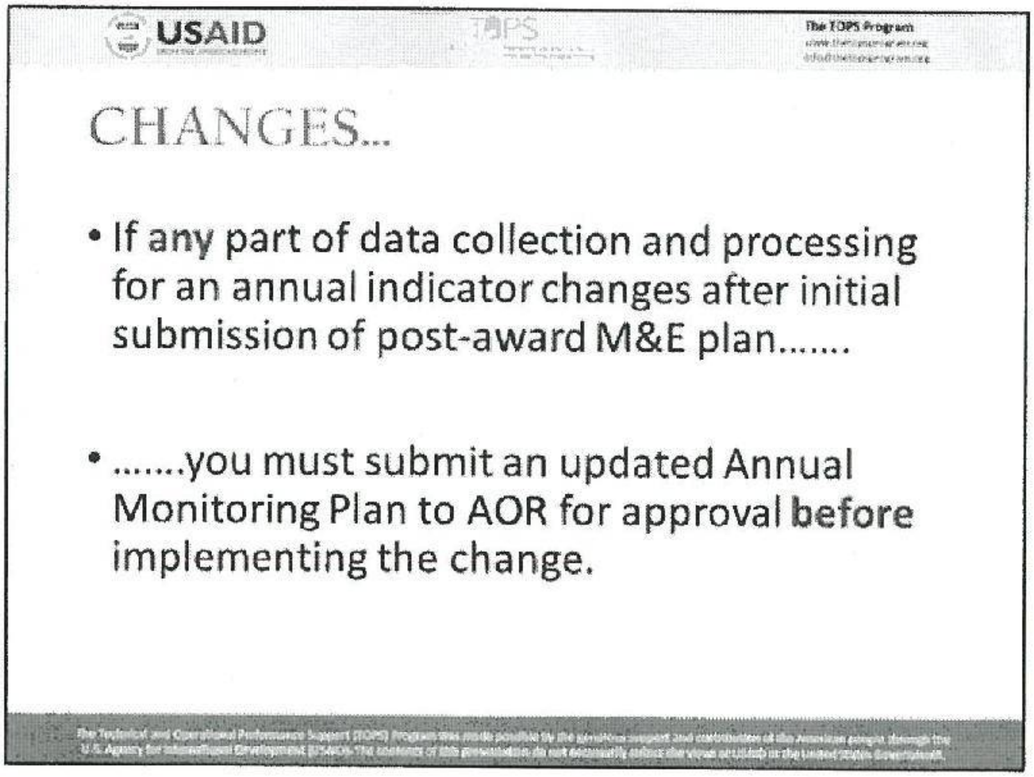
If FFP/MIS uses information in a particular way (data fields, etc.), it is useful if the monitoring forms incorporate that, as it will make data entry much easier. USAID is now requiring that data bases be submitted (after surveys, etc.), so it is important to ensure that the data fields and definitions are included as part of your project's M&E plan.



This data base should include tables for each beneficiary category. Each table should include beneficiary identifiers that enable accurate connections among the different beneficiary units, e.g., connections of multiple household members who benefit from different activities to their common household, and connections of multiple beneficiary households to their common community. At the same time, there should be precautions to ensure that beneficiaries can remain anonymous to outsiders. They will obviously be known to the project implementers!

These connections assure the accuracy of reporting, avoiding double counting of beneficiaries or households that benefit from multiple activities, and also are important to demonstrating the degree of integration achieved through the project's targeting.

The data definitions and fields are part of the background information; the basic description should include the variables, subsets of the beneficiaries that are affected by different indicators. In addition, if data bases are integrated across partners, make sure that the software is the same version (or compatible ones). While some software translate easily from one to another (Excel and Access, for example), it is much simpler if you do not translate in the first place.



In the case that, after the initial submission you find it necessary to change any part of collection and processing procedures for an indicator, submit an update to the Annual Monitoring Plan to the AOR for approval before implementing the change. It is often useful to do this as part of a series or group of changes, rather than for individual indicators each time. It might be useful to do this on a semi-annual basis for part of your data quality review, and then incorporate into draft changes on the AMP. The paper trail is extremely important for changes to data collection so that you can manage both data quality and any additional interpretations of the data; this includes the date for the revisions so that you can track changes over time. The easiest thing to do is save this as a separate file with the date incorporated into the file name.

If your activities change, you will need to revise the plan – so the annual monitoring plan gives you an opportunity to review all of the M&E plan to match any programmatic changes, document parallel changes to the M&E plan, and ensure that your data collection matches the revised data requirements.

What is the timing of submitting an M&E Plan?

FFP Comments on timing:

Activity 2.3

Module 3.2

3.2. Data Quality Assurance, Management, and Safeguard Plan

TOPS M&E Plan Workshop

Blantyre, Malawi

February 9-13, 2015

The Technical and Operational Performance Support (TOPS) Program was made possible by the generous support and contribution of the American people through the U.S. Agency for International Development (USAID). The contents of this presentation do not necessarily reflect the views of USAID or the United States Government.

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Overview

- Components of this session:
  - Part I - 6.1.: What is a data quality assurance plan?
    - ➢ What are the essential elements of a data quality assurance plan?
  - Part II - 6.2.: What is a Data Quality Assessment (DQA)?
  - Part III - 6.3.: What is a Data Management and Safeguard Plan?

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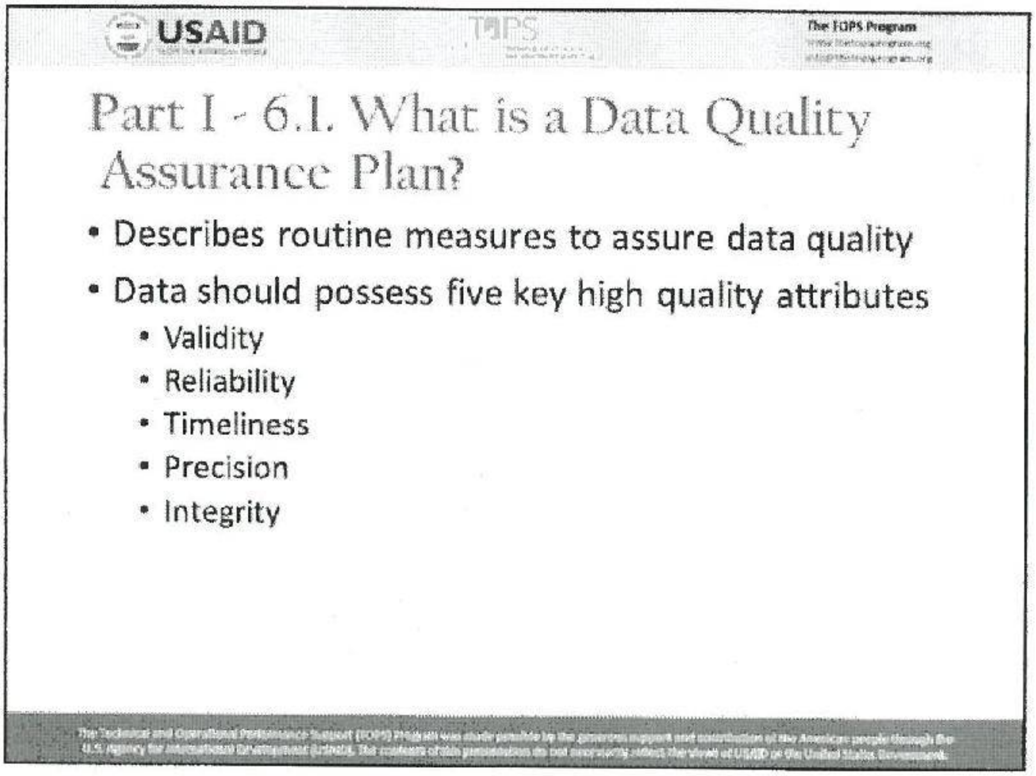


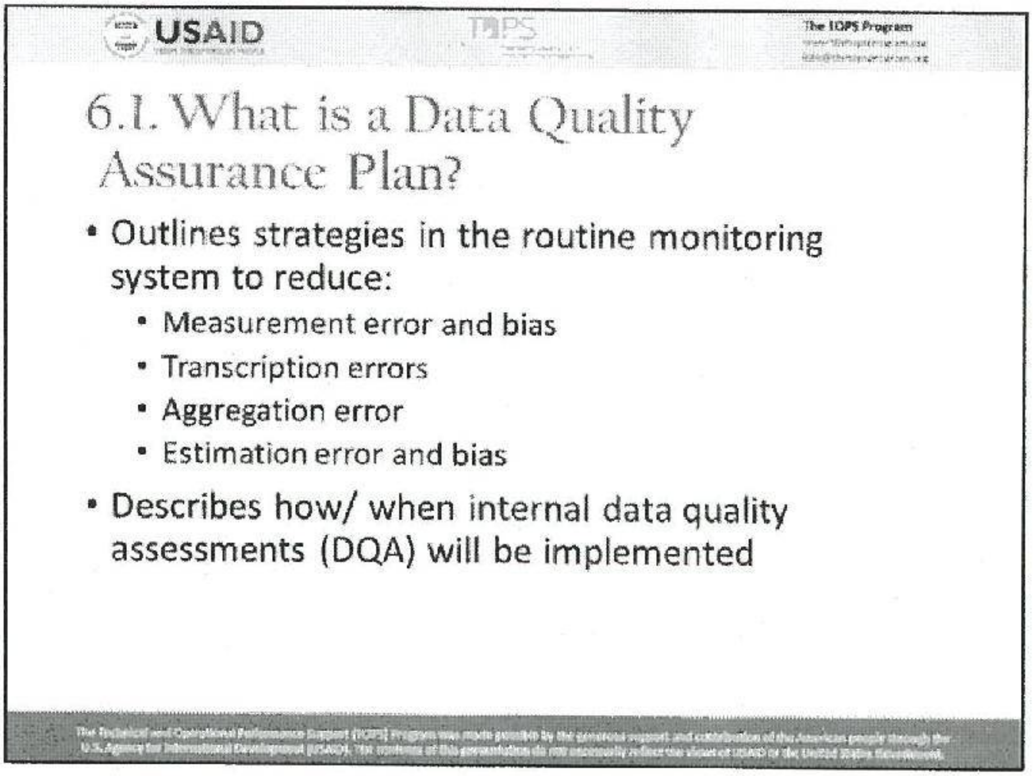
Facilitator asks: Can you give me examples of instances when you have had problems with incomplete or missing data?
Any problems getting data from partners, staff, or communities in a timely manner?
What kinds of problems are caused by poor data quality? What kinds of problems do poor data quality cause?

The M&E plans for all FFP-supported development and emergency projects must include a data quality assurance plan that describes the routine measures awardees will take to assure the quality of data collected and generated by their M&E systems. Note that this is something the Missions also go through, and provide the PPL handout as well on DQA.

The plan should illustrate how the awardee will ensure that data possess the five key attributes of high quality (validity, reliability, timeliness, precision, and integrity).

Offer the following definitions for clarity on a ***handout****:*

Validity – the ability to measure what is intended.
Reliability – data collected using the same methodology gives you the same result.
Timeliness - ability to have regularly collected, up-to-date data available when it is needed.
Precision – the ability to minimize error (due to data collection instruments).
Integrity – data free of willful or unconscious error due to manipulation (human or machine).



The data quality assurance plan must outline strategies in the routine monitoring system to reduce biases and errors (measurement, transcription, aggregation, and estimation).

Facilitator: Ask volunteers to describe strategies they have used to reduce measurement errors . Stress the linkage between measurement error and data validity.

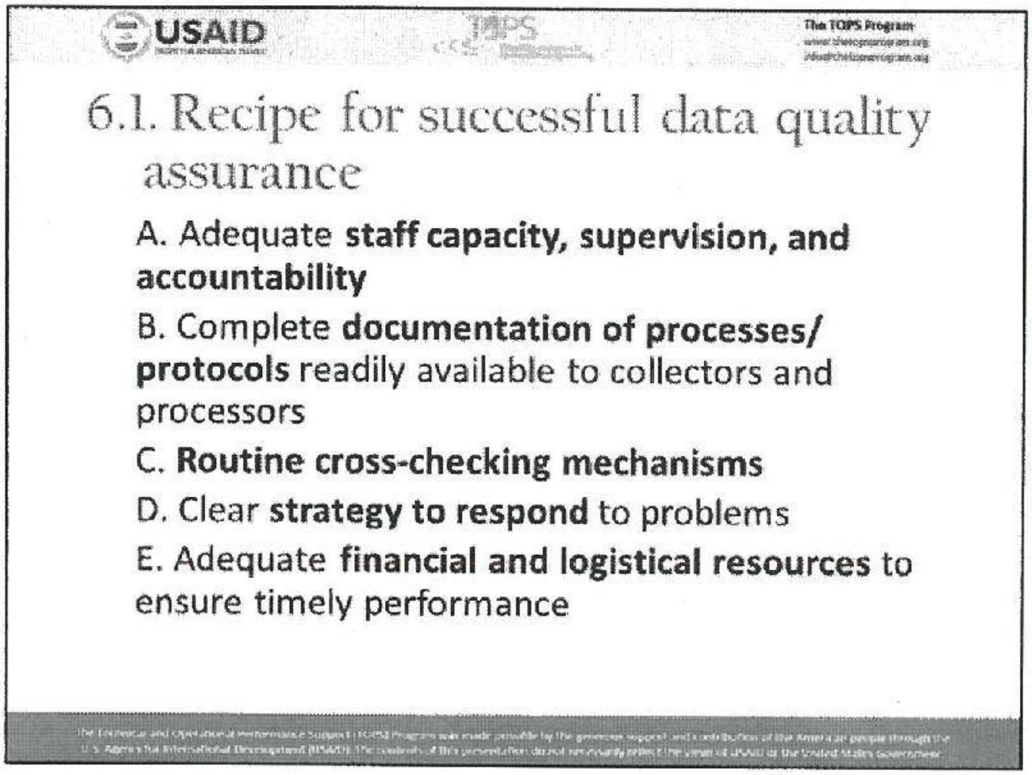
Strategies to reduce transcription errors? the linkage between transcription error and data integrity.

Strategies to reduce aggregation errors?

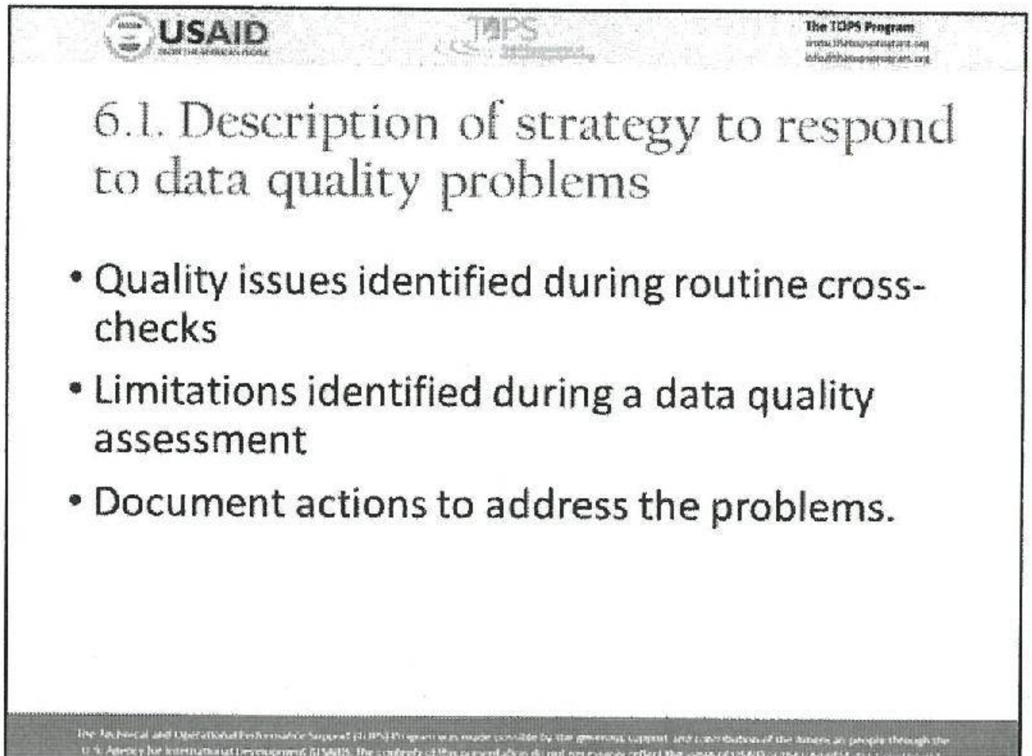
Strategies to reduce estimation errors?

The plan should also include internal data quality assessments (DQA), which we will describe in detail later in this presentation.

Refer to football league data table to show how some of these errors might occur (legitimately).



This is an overview slide of factors that are key to good data quality assurance. The data quality plan should include a description of each element. Details on each bulleted component are provided in subsequent slides.



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6.1.1. Description of staff capacity, supervision and accountability

- Number and qualifications of staff
- Job descriptions
- Time allocated to M&E responsibilities
- Nature and timing of relevant training
- Provisions for corrective action and accountability

The data quality assurance section of the M&E plan must describe:

1. **number and qualifications** of staff in the various roles of data collection, supervision, verification, and processing
2. **clear job descriptions** outlining their specific responsibilities related to data collection, recording, and processing
3. the frequency and proportion of their **time allocated to these responsibilities**
4. the nature and timing of **training** relevant to their specific responsibilities and general principles of data collection and reporting, including gender concerns
5. quality **checking and provisions** for corrective action and accountability.

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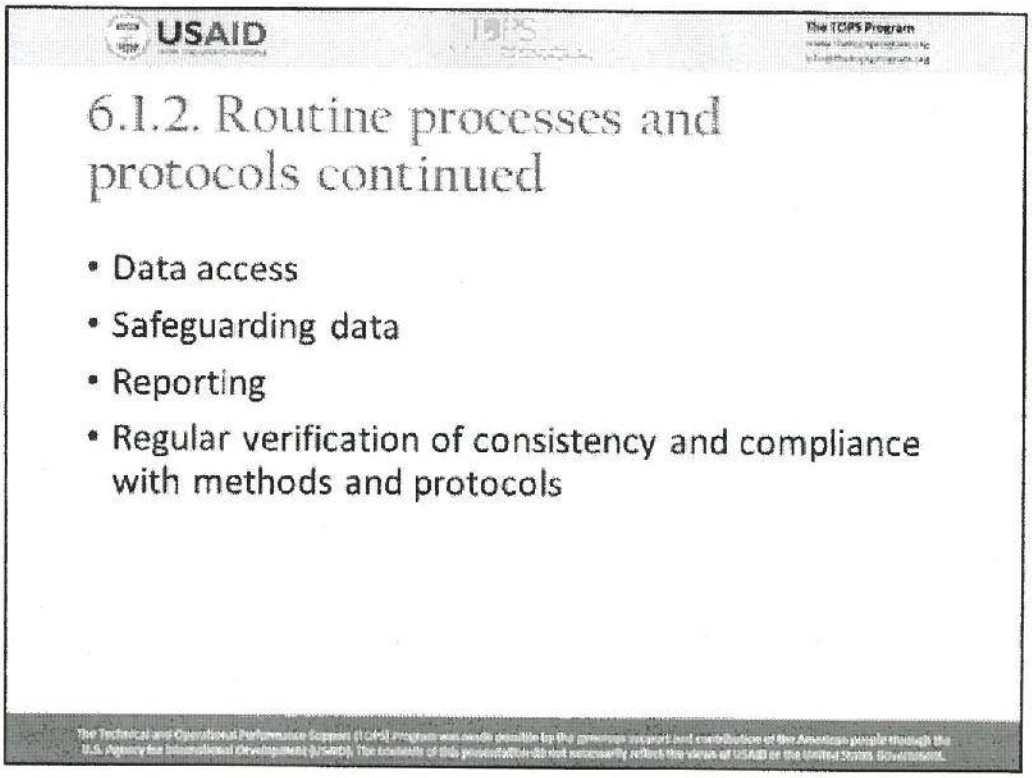
6.1.2. Routine processes and protocols

- Data collection
  - Language-appropriate
  - Clearly-defined procedures
- Data cleaning
- Recording
- Aggregation

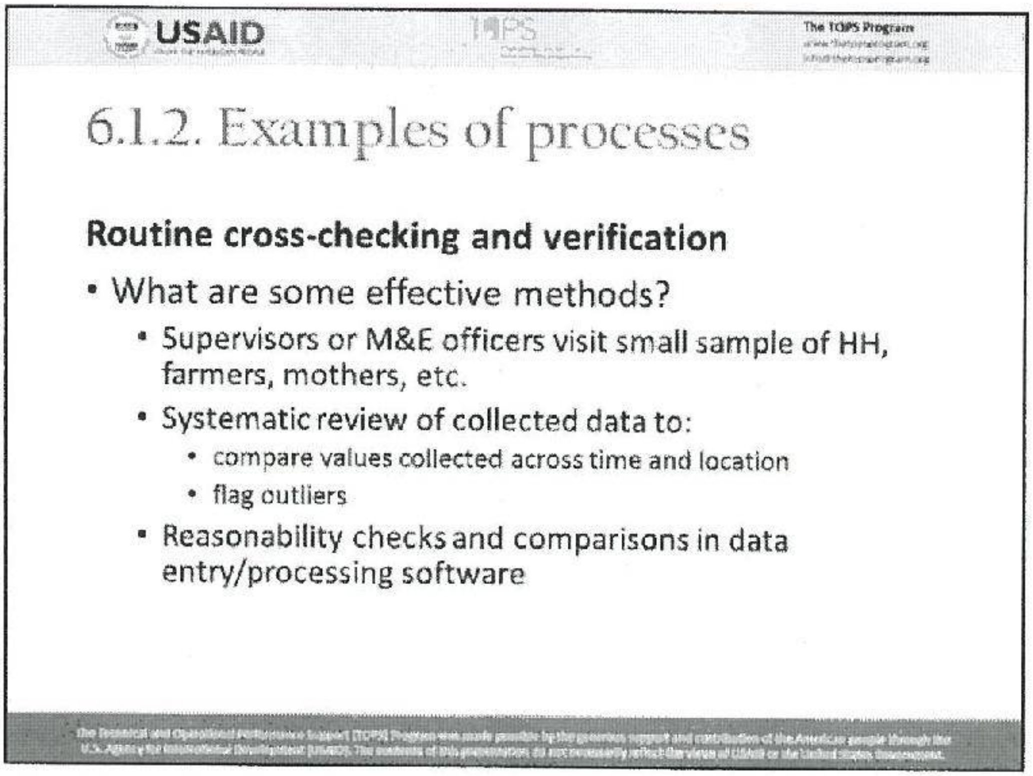
The documentation of processes and protocols plays a critical role in assuring data quality.

Therefore the DQA plan must highlight aspects that protect and verify data quality related to the list on the screen.

When explaining data collection methods in the DQA plan be sure to document the use of uniform and standard data collection tools with clearly written instructions developed in a language that staff and volunteers are comfortable with and are culturally appropriate (especially for gender). Also describe how the project will provide data collection staff with clearly defined methods and procedures for obtaining the data to increase the chance that all respondents will understand questions similarly.



The documentation of protocols also plays a critical role in assuring data quality. Describing data access and safeguard protocols will be discussed in detail in the session: Data Management and Safeguard Plan

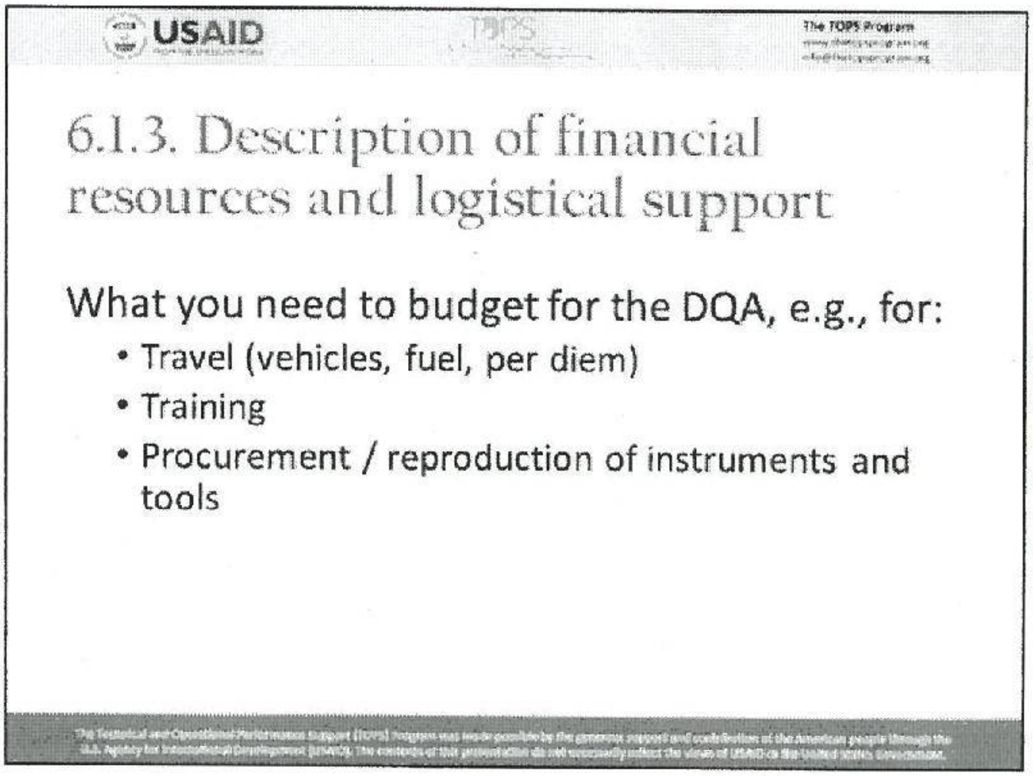


The data quality assurance plan should describe how the awardee will include frequent and consistent verification of validity of the data collected by volunteers, implementing staff, and M&E staff and of the accuracy of the data processing as the collected data flows from data collection point to final report, for example, the data flow diagram we discussed in the last session.

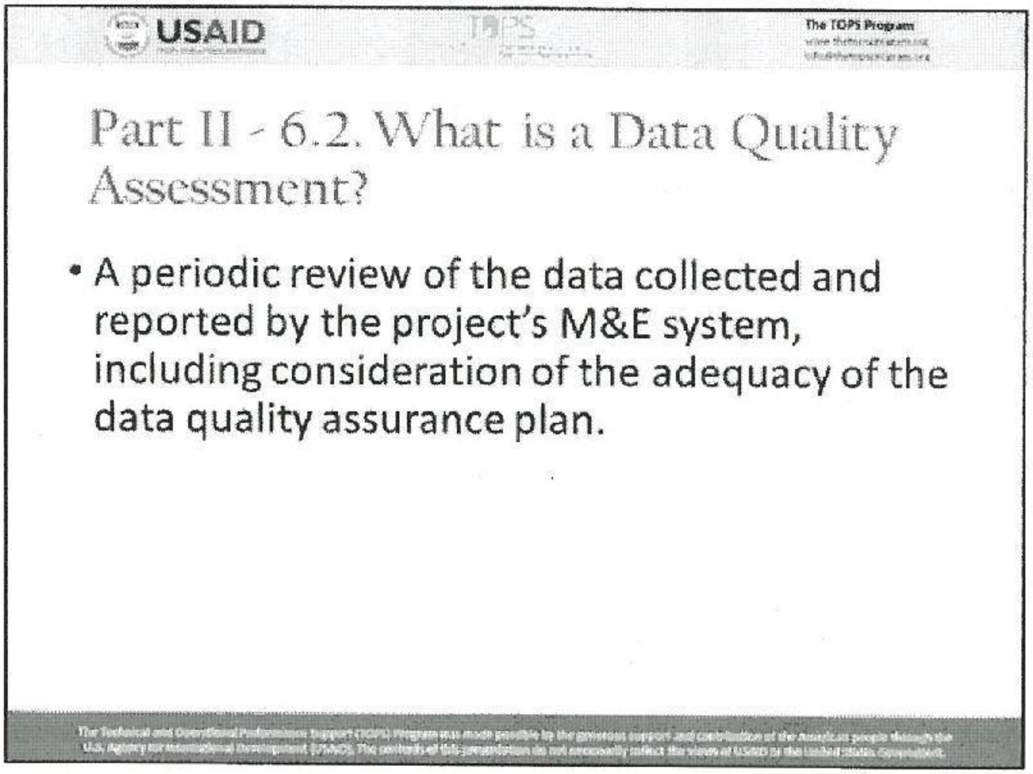
Ask participants to share some of the ways they cross-check data:

On click: Cross-checking and verification methods include measures such as:

- Visits by supervisors or M&E officers to a sample of farmers, mothers, or households to verify the information previously collected by community volunteers or implementing staff,
- Systematic review of collected data to compare values collected across time and location and flag outliers that should be investigated
- Incorporation of reasonability checks and comparisons into data entry and processing software



The plan should demonstrate that the Awardee has sufficient financial resources and logistical support to assure timely performance, e.g., for travel, training, and procurement/reproduction of instruments and tools, etc. Note that these resources generally come from the M&E budget itself, so it should be factored into that (rather than trying to have the M&E staff do this new work on their already tightly-stretched budget).



DQAs are periodic reviews of the data collected and reported by the project's M&E system, including consideration of the adequacy of the data quality assurance plan. One DQA per year is sufficient, but this is generally not a single indicator. It is more usually a selection of indicators.

Although USAID Mission conducts DQA for selected indicators, awardees should conduct DQA as a part of the data quality assurance plan. This gives you control over data quality in a routine (rather than potentially punitive) way, and you already have this planned out in the PIRS, right?

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6.2. Data Quality Assessment: Elements to include in the M&E Plan

- A list of indicators to be reviewed in that year
- Timeframe: frequency and duration
- Description of tools used
- A list of quality standards that will be reviewed as a part of the DQA
- Who will participate in the DQA: roles and qualifications

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6.2. How do I carry out a Data Quality Assessment?

- Strategically identify 3-5 indicators (7-8 may be too many). Possible selection criteria:
  - Indicators that are complicated to measure
  - Indicators with suspect data quality issues
  - Indicators for project areas that are of high importance.
- Selected indicator list can be revised on an annual basis in consultation with AOR.

You should also do data quality assessments for any indicator, but these don't just have to be done during a data quality assessment. Instead, they can be routine data quality checks done by the system administrator and by those supervising field data collectors.

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6.2. How do I carry out a Data Quality Assessment?

- For each selected indicator, a DQA verifies the five quality standards by reconstructing the data trail from start to end.
- Examples of steps to be reviewed:
  - M&E structure, functions, and capabilities.
  - Indicator definitions and reporting guidelines
  - Data collection and reporting forms and tools
  - Data verification, aggregation, management and storage processes and systems
  - Data use and dissemination practices
  - Links with national reporting systems (where relevant)

Typically the DQA reconstructs the flow and trail of data for each selected indicator to verify the data quality standards from the initial point of data entry up to the highest level of reporting and broader system context.

Ask participants to brainstorm on what would be required in a data quality assessment for each of the steps listed on the screen.

Who would be responsible?
What would be the specific tasks?
What tools would be used to carry out a review of this step?
How much time is required to review each step?
What resources would be needed (human, financial, logistical)?
In what capacity would partners be involved ?

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Part III - 6.3. What must be included in the Data Management and Safeguard Plan?

- Strategies to safeguard beneficiary confidentiality
- Systems to store/maintain original data files/project records
- Database management (back up)

Strategies to safeguard beneficiary confidentiality: Describe the measures that will be taken to protect personal identity, both in hardcopy and digital files. This is increasingly important to USAID in the context of cloud-based survey systems. The project must have a protocol to ensure confidentiality.

Systems to store/maintain original data files/program records: Describe where original data will be stored, how they will be protected, who can access them, how long the project will retain them, and procedures and timeline for their destruction. Determine how long project records need to be maintained, and whether there are cost implications for that storage.

Database management: Identify which database application and version will be used, what will be the structure of the database, how often will data be backed up, who is responsible for data backup, how will the backup files be managed, what will be the virus protection, and where will the data and backups be physically stored (for example, multiple locations for backups).

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6.3. What must be included in the Data Management and Safeguard Plan?

- Database entry procedures
- Data management protocol
- Security protocol
- Data management coordination across partners (for consortium/ partnerships)

Database entry procedures: Describe who will enter data, how often will it be entered, which application package will be used, and what systems will be built to minimize data entry errors. Examples of data entry procedures could include double keying of data before entering information into the data bases, building drop-downs and conditional entry fields, and developing filters, macros and scripts to identify data outside of reasonable parameters or contradictions.

Data management protocol: Identify who will control the database, who will be able to edit it, and how. How often will the database be updated? Who will have access to the database – for input and for retrieval? What is the plan for preventing unauthorized data manipulation or access? What control mechanisms will be in place to prevent unauthorized editing?

For consortium or partnership projects, the plan must describe how data management will be coordinated across partners.

Activity 3.3

Activity 3.3. Activity: Data Quality Assurance and Safeguard Plan

Using the case study that was presented during activity 2.3, decide on five monitoring indicators (you can use the ones from Activity 2.3). Be prepared to present out:

a) How are these indicators valid, reliable, timely, precise, and demonstrate integrity?
b) How do you plan to check on the quality of the data for these indicators in a routine manner?

Facilitator will add at least one new variable mid-way through the group work that affects data quality.

c) How do you adjust your plan (and be prepared to show how you might have anticipated this and what you can put in place to monitor this) to compensate for this factor?

Each group will have ten minutes to present their responses.

VARIABLES:

- Values from ten villages (of the forty in the project area) for vegetable production (close to each other, and managed by two different monitors) drop by 50% from one growing season to the next. Vegetable production increased in the remaining 30 villages by at least 25%.
- Diarrhea cases (reported to the health post) increased in twenty villages from 7% to 70%
- Diarrhea cases (reported to the health post) decreased in two villages from 400 cases in September to 4 cases in October following a health training in diarrhea management based on one monitor's report.

Module 4.2

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4.2. Data Dissemination and Use Plan

TOPS M&E Workshop

Blantyre, Malawi

February 9-13, 2015

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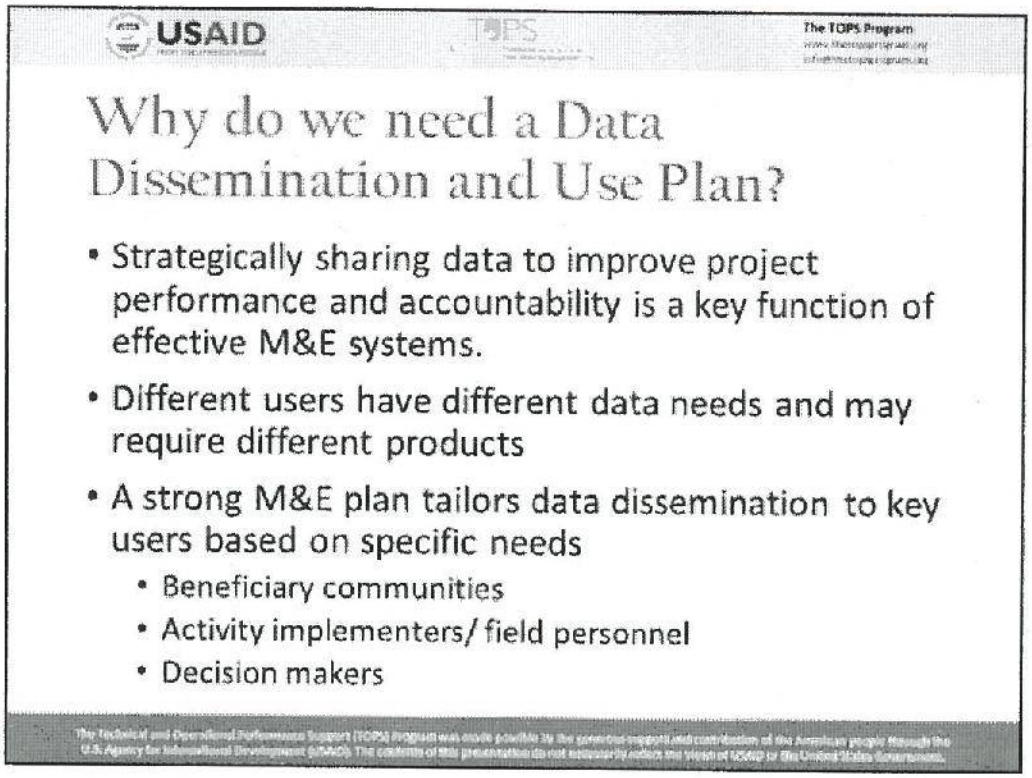
Overview

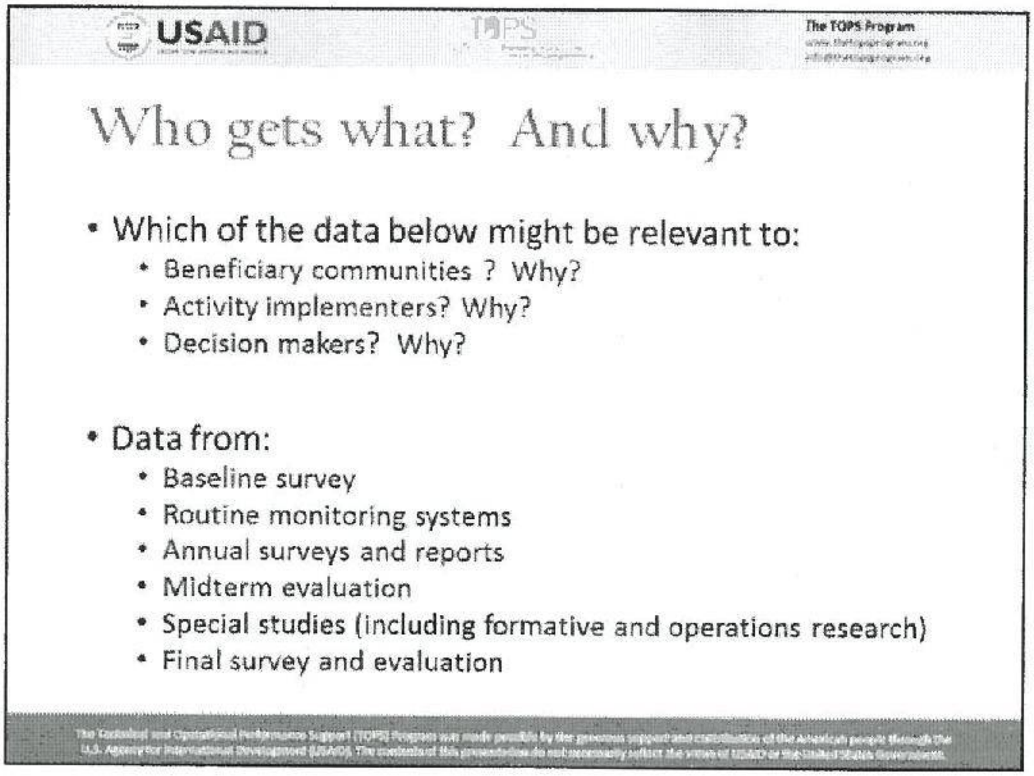
- Why do we need a Data Dissemination and Use plan?
- What types of data are disseminated? Who gets what? And why?
- What must the Data Dissemination and Use Plan include?



Strategic and systematic data dissemination for use to improve project performance and accountability is a key function of effective M&E systems.

The M&E Plan should include a plan for data dissemination to users, including beneficiary communities, activity implementers, and decision makers: users and consumers.

A strong M&E plan tailors the dissemination of each type of data based on the needs of the recipients.



Ask participants to brainstorm about which specific data may be important to share with various users.

How would each type of recipient use the data?

A new user appears with each click.

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7.0. Data Dissemination and Use Plan

- Part I - 7.1. A broad description of data sharing
- Part II - 7.2. Description of strategic dissemination options for stakeholders
- Part III - 7.3 Description of data use internal to project (management, M&E staff, etc.)

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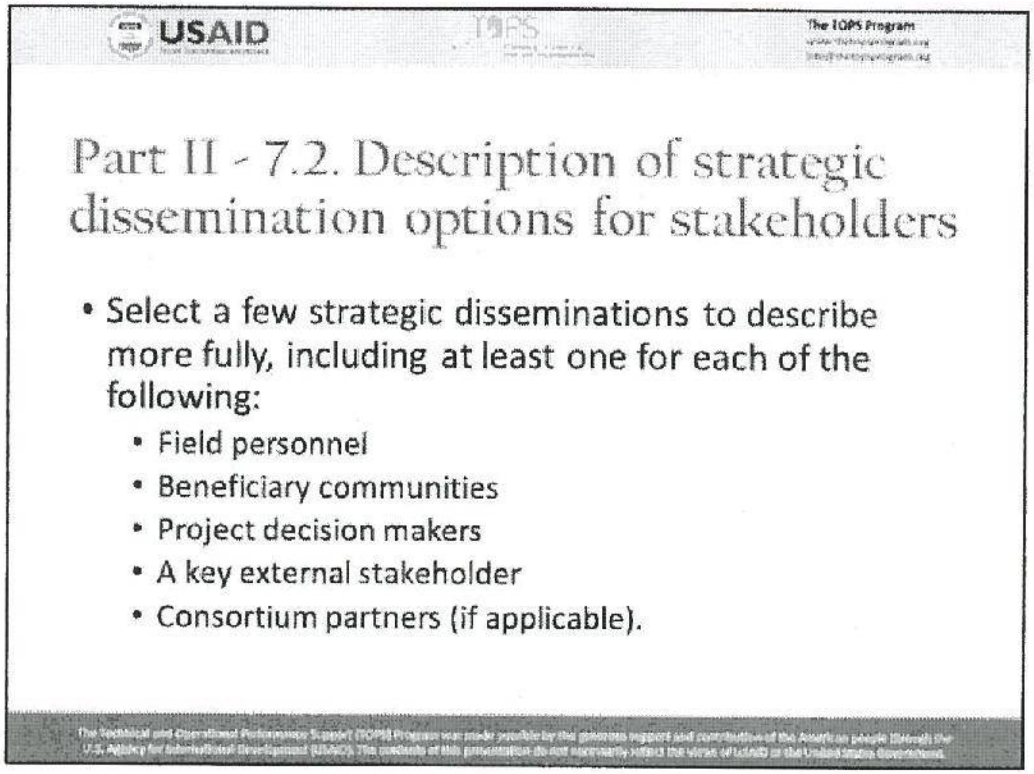
Part I - 7.1. A broad description of data sharing

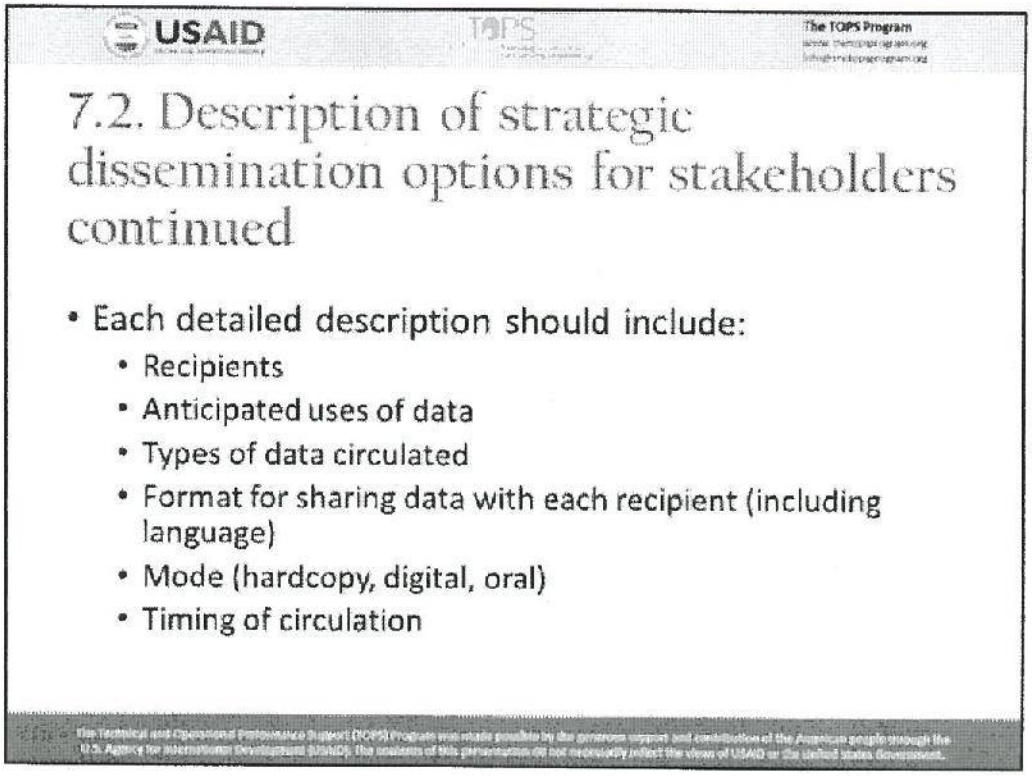
- Which data are sent to various users
- The manner and frequency of sharing data with each user
- How various stakeholders intend to use the data

Partners should describe in general terms the various internal and external dissemination options and requirements of data from the project's M&E system.

The plan should describe which data are sent to various users, the manner and frequency of dissemination to the user, and the user's intended use of the data.

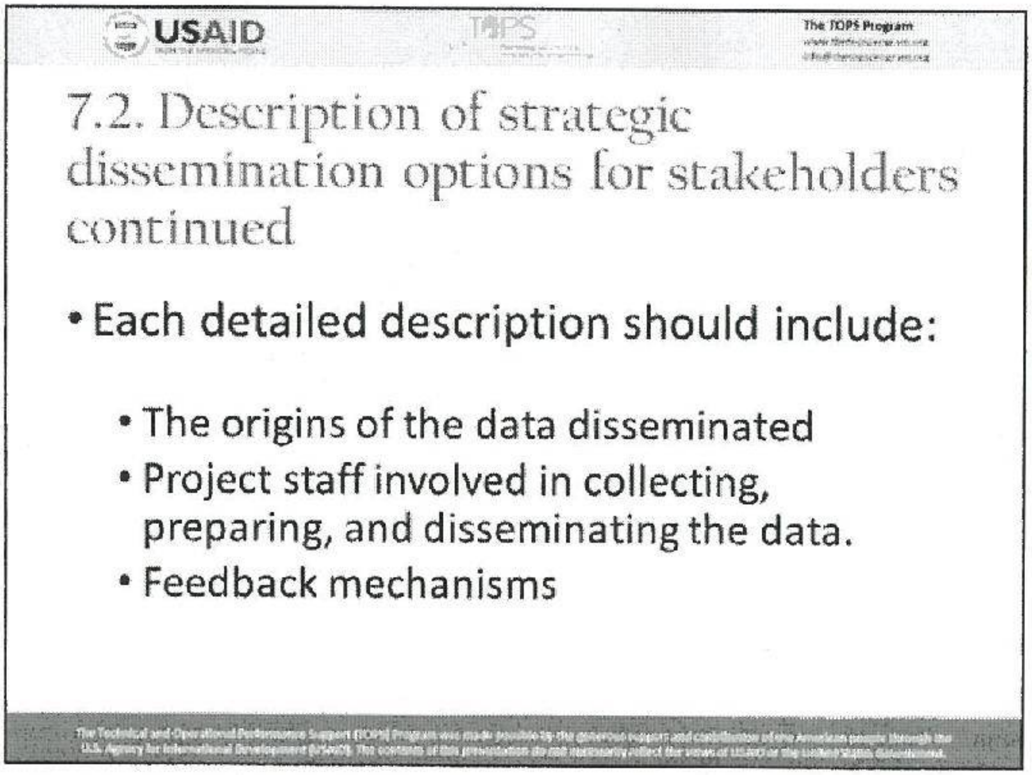


You must also select strategic dissemination options to describe more fully in the data dissemination plan, including at least one dissemination designed for each of the stakeholders listed. The data flow diagram can help underscore who needs feedback or input into the dissemination process.

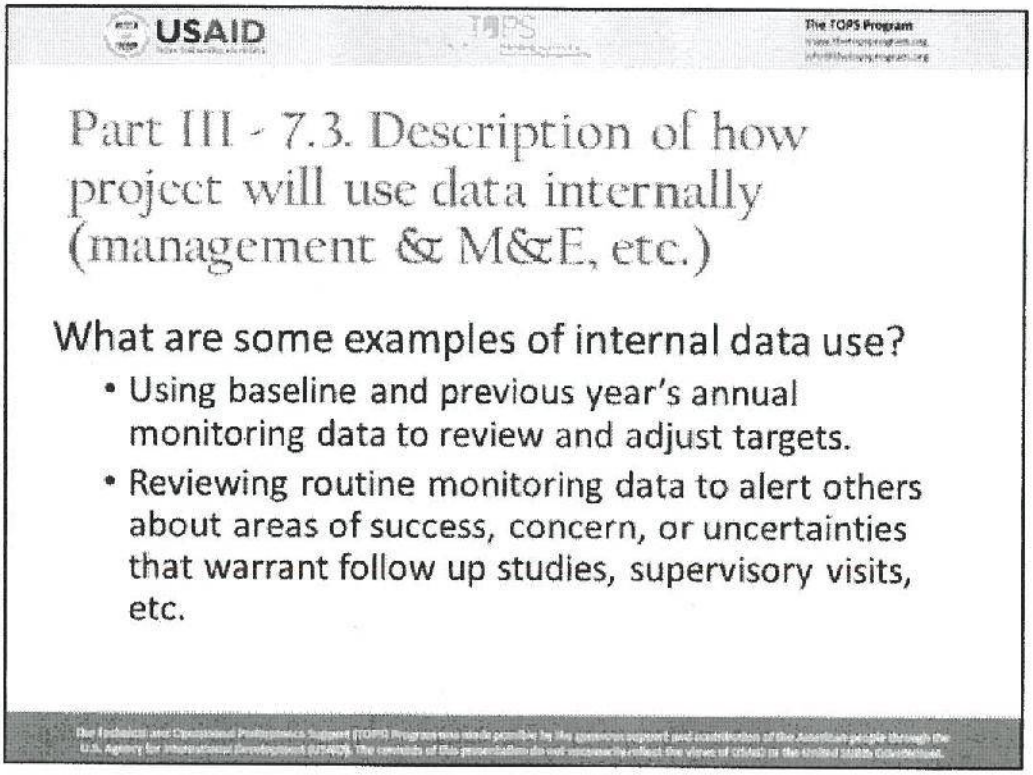


These detailed descriptions should include:

- **Recipients** of the dissemination.
- **Anticipated uses:** specific questions to be answered or decisions to be made by the recipients.
- A description of **the types of data** in the dissemination
- **Format** for sharing data with each recipient (Note that charts and complex graphs may be appropriate for project staff, while project beneficiaries may require simpler formats).
- **Mode** (hardcopy, digital, oral) and **timing** of dissemination

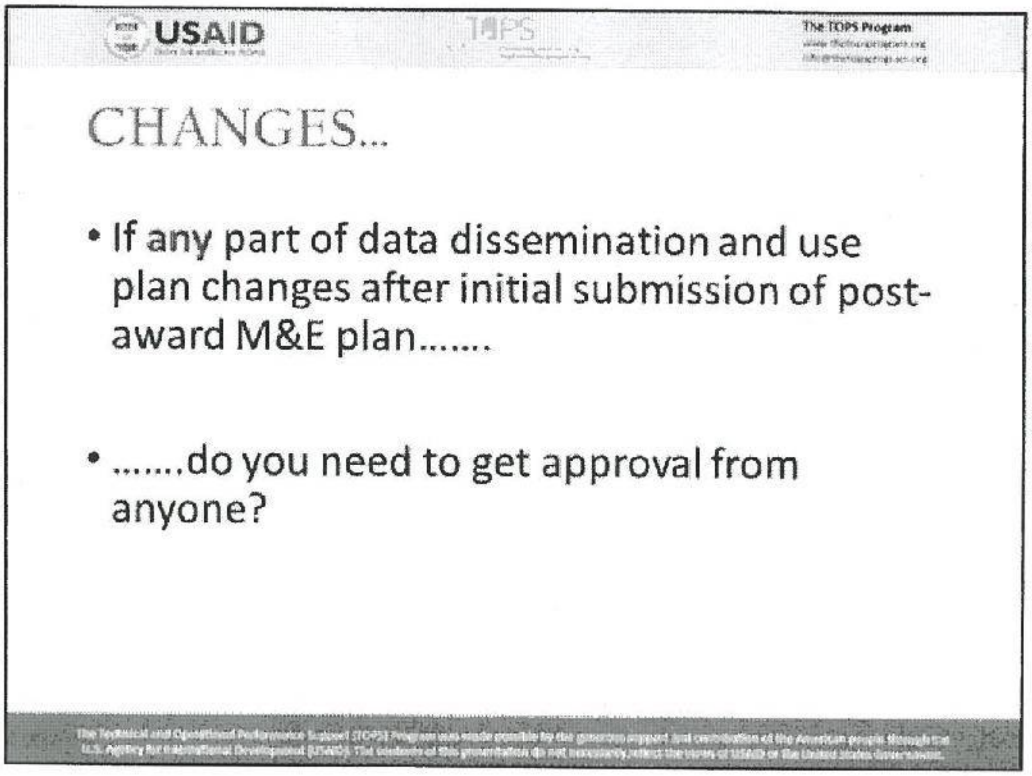


- The **origins** of the data disseminated
- **Project staff** involved in collecting, preparing, and disseminating the data.
- **Mechanisms for exchange of feedback** and questions related to the disseminated data among recipients, the M&E Team, and data collectors. Planned meetings to discuss and share data; this may also include a review process and might be part of a data quality assessment. Where possible, projects should leverage pre-existing, routine forums, as this will facilitate regular data use.



The plan should also describe ways that the project's M&E personnel use data internally.

Ask participants for their own examples before clicking forward to show examples on the screen.



In the case that, after the initial submission you find it necessary to change any part of collection and processing procedures for an indicator, submit an update to the Annual Monitoring Plan to the AOR for approval before implementing the change. It is often useful to do this as part of a series or group of changes, rather than for individual indicators each time. It might be useful to do this on a semi-annual basis for part of your data quality review, and then incorporate into draft changes on the AMP. The paper trail is extremely important for changes to data collection so that you can manage both data quality and any additional interpretations of the data; this includes the date for the revisions so that you can track changes over time. The easiest thing to do is save this as a separate file with the date incorporated into the file name.

If your activities change, you will need to revise the plan – so the annual monitoring plan gives you an opportunity to review all of the M&E plan to match any programmatic changes, document parallel changes to the M&E plan, and ensure that your data collection matches the revised data requirements.

What is the timing of submitting an M&E Plan?

Activity 4.3

Activity 4.3. Activity: Data Dissemination and Use Plan

Each group will then elaborate a data dissemination and use plan diagram based on the data flow diagram developed in activity 2.3. The plan should show:

a) Who gets what information?
b) When do they get the information?
c) What do they do with the information?
d) What are the quality checks during the process?
e) What are the feedback loops in the process?

BONUS: describe in what format (or how) the people who get information.

Put your diagram on the walls. Groups will review each other's diagrams and the facilitators will lead a plenary discussion about some of the key challenges in developing the diagram, control over information, and how to package information effectively for different audiences.

Module 4.4

4.4. M&E Staffing Plan & Capacity Development Strategy

TOPS M&E Plan Workshop

Blantyre, Malawi

February 9-13, 2015

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Overview

- FFP requirements
- Key Elements of an M&E Staffing Plan and Capacity Development Strategy

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Overview of FFP Requirements

- An M&E Staffing Plan and Capacity Development Strategy are required components of a M&E Plan
- Both must be submitted as a part of each application for a new award.

All M&E plans must include the project's **M&E Staffing Plan** and a **Capacity Development Strategy** for M&E staff members.

- FFP stresses the importance of the CDS.....rarely see intentional focus on this element.

Both components must be submitted as part of each application for a new award. Awardees should submit revised plans and strategies to the AOR as any change is made, or at the latest, with next quarterly report.

Any changes to the M&E Staffing Plan and Capacity Development Strategy must be approved by the AOR, and should be communicated as changes are required or via the PREP process for multi-year projects.

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Key Elements in an M&E Staffing Plan and Capacity Development Strategy

- Part I - 8.1. M&E Staffing Plan
- Part II - 8.2. M&E Capacity Development Strategy

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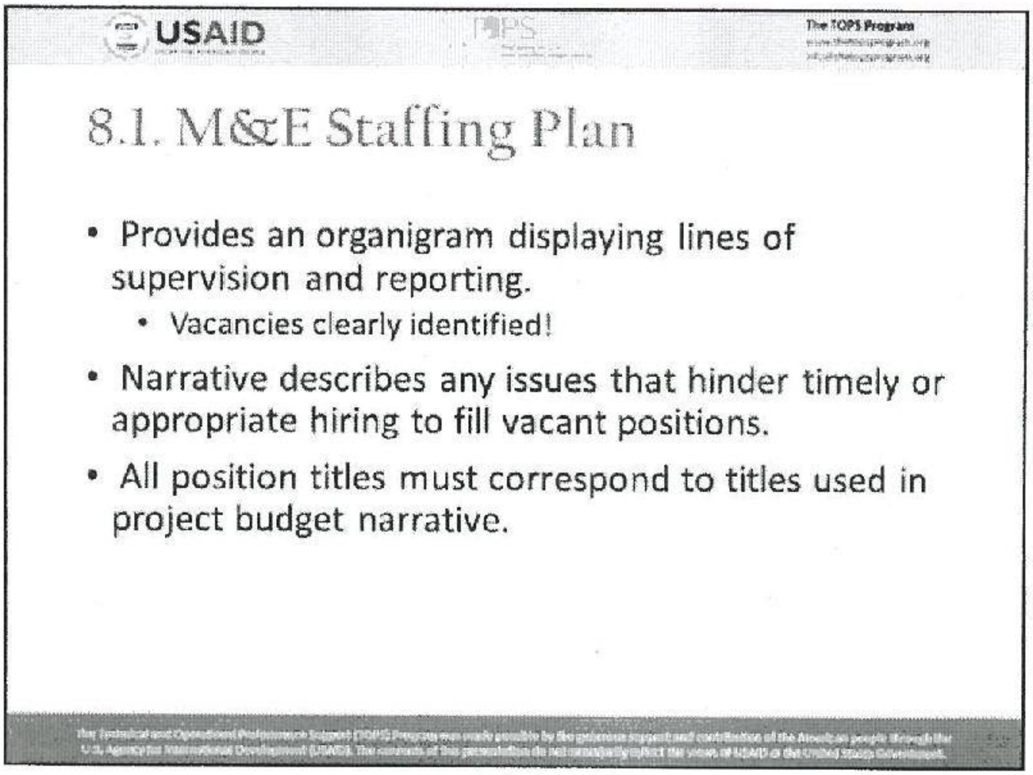
Part I - 8.1. M&E Staffing Plan

- Identifies all staff positions that contribute to achievement of M&E Plan
  - Includes staff from Implementing Partners
- Describes roles/responsibilities and required capacities of individuals for each position

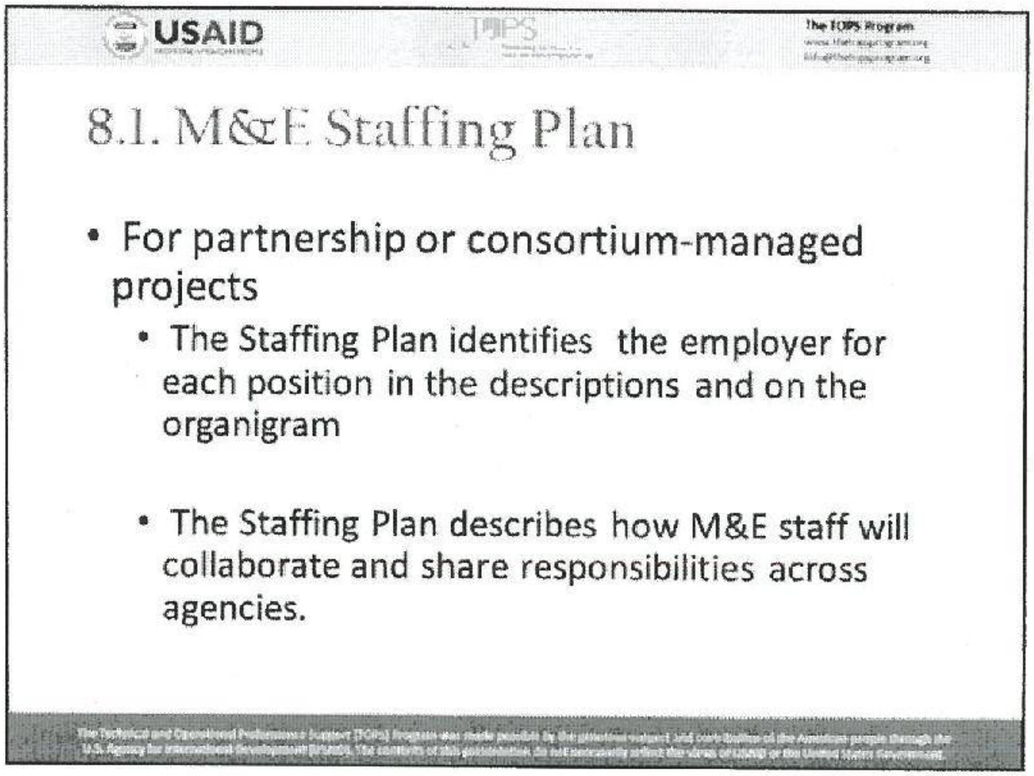
The M&E staffing plan should identify all staff positions that contribute to the achievement of the M&E Plan including staff with M&E responsibilities from the implementing partner organizations, and describe the roles/responsibilities and required capacities of individuals for each position.



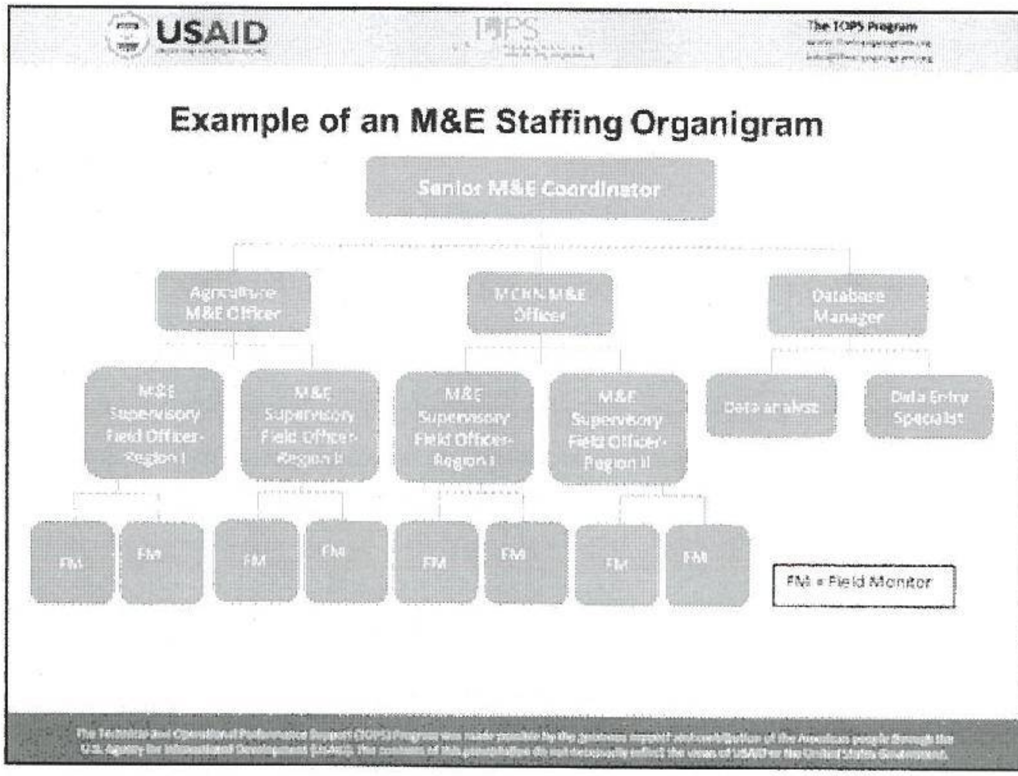
The staffing plan must also include an organigram that graphically displays the lines of supervision and reporting among them. Vacant positions should be clearly identified (e.g., using labels, color, shape) on the organogram. Replacement and orientation strategies should also be included due to the high turn-over (and/or burn out) for M&E positions.

Accompanying narrative should be used to describe any issues that hinder timely or appropriate hiring to fill vacant positions.

At application, all position titles in the staffing plan and on the organigram must correspond to the titles used in the project budget narrative and detail. When titles change, a new staffing plan and organigram must be submitted to FFP.



In the case of partnerships or consortium-managed projects, the plan must identify the employer for each position in the descriptions and on the organogram, and the staffing plan should describe how M&E staff will collaborate and share responsibilities across agencies.



An example of what FFP would like to see in an organigram graphic. This should include the position title and the funding organization for each staff member. You might want to include the HQ M&E staff in a dotted line for supervisory purposes.

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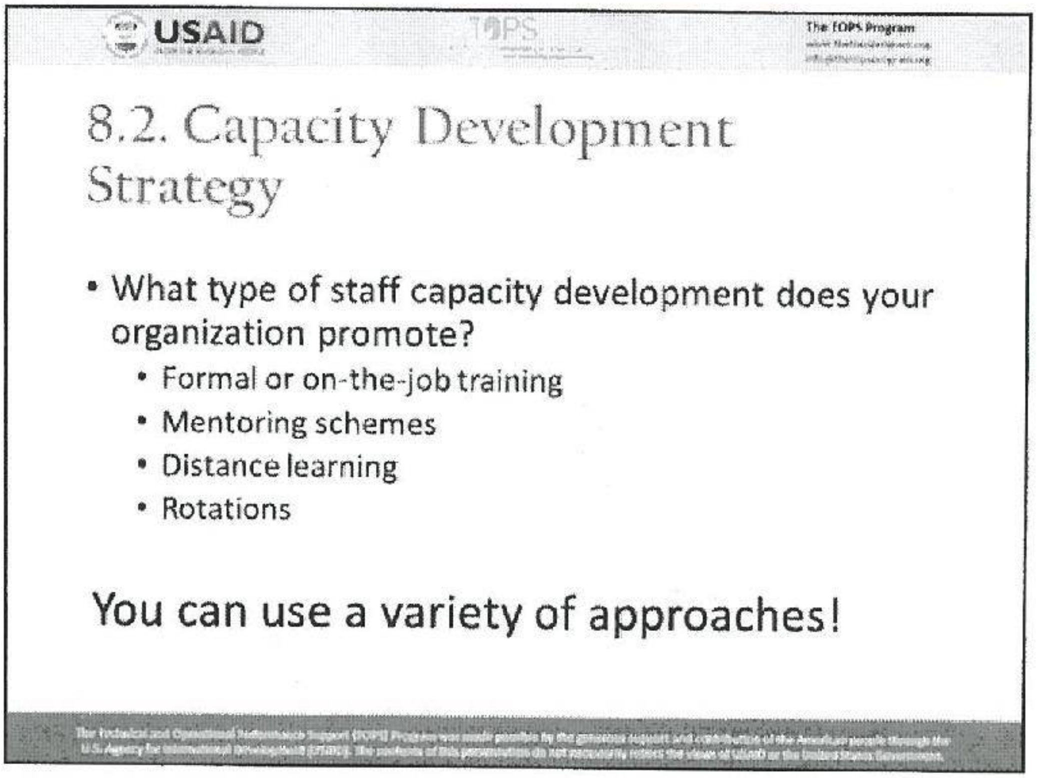
Part II - 8.2. Capacity Development Strategy

Clearly describes:

- Gaps in the skills of current and anticipated M&E staff
- How these needs will be identified and addressed
- Timing of activities
- How M&E staff capacity will be measured and improved throughout the project' s life.

The M&E capacity development strategy should describe gaps in the skills of current and anticipated M&E staff (given the tasks they are required to perform, or the needs of the project overall); how these needs will be identified and addressed; the timing of activities; and how M&E staff capacity will be measured throughout the course of the project.

This could also be a table!!!!!!!!!!!!!!!!! The IPs will need to develop a skills analysis for the M&E staff in order to create both the plan and the measurement of capacity. The CRS M&E series includes a module on hiring M&E staff.



Ask participants to share effective means of M&E capacity development before clicking forward.

Projects may use a variety of different approaches and modalities for developing staff capacity, which may include but are not limited to formal or on-the-job training, mentoring schemes, distance learning, and rotations. This type of approach could also be used for other technical and administrative staff.

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8.2. Capacity Development Strategy

- Include plans for refresher courses and capacity development for new staff members, based on an estimated staff turnover
- Clearly identify the costs related to each capacity-development activity in the M&E budget.

Given the experience of FFP projects, the project should ensure that the strategy takes regular staff turn-over into account and include approaches for recurrent training. Highlight your plans for refresher courses and capacity-development for new staff members, based on an estimated attrition rate.

The M&E budget should clearly identify the costs related to each capacity-building activity.

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CHANGES...

- If any part of the M&E Staffing Plan and Capacity Development Strategy changes after initial submission of post-award M&E plan.......
- ....what do you need to do?