

**Concept Note of
The 34th Monitoring and Evaluation Learning Forum**

**“How to conduct Internal Baseline study”
(focus on Data processing and cleaning & Analysis and Data Interpretation)**

21st February 2025, 8:00 am – 5:00 pm

Hybrid platform at Tonle Bassac2 restaurant

Participants 71 people (30 female)



I. Introduction

The Cooperation Committee for Cambodia (CCC) is the largest membership-based organization for civil society organizations in Cambodia, with around 200 Foreign (FNGO) and Domestic non-governmental organizations (DNGO) as members, and around 300 local organizations as partners and beneficiaries. CCC is currently implementing Phase V of its Governance Hub Program (GHP 2024-2028), an initiative intended to foster inclusive partnerships to promote good governance, a strong enabling environment, and ensure the sustainability of civil society organizations (CSOs) in Cambodia.

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With the suggestions from the NGOs participants/M&E practitioners on the next topic proposed, CCC's team and M&E working group discussed together to shape the topic with practical tools and methodologies to share with NGO participants in the learning forum. At the end of meeting, the members of the M&E working group who have great experience with different concept of local and foreign NGOs on developing and using the simple and practical M&E tools will be the resource person to share with NGOs participants for the whole day on 21st February 2025 for the topic of **“How to conduct internal Baseline study (focus on Data processing and cleaning & Analysis and Data Interpretation)”** which will be organized as hybrid platform at Tonle Bassac2 restaurant in Phnom Penh.

II. Objectives of the Learning Forum

Participant shared experiences and learn related to:

- Techniques to identify and correct errors, inconsistencies, and duplicates in datasets
- Gain familiarity with key descriptive statistical concepts and techniques relevant to analyzing datasets.
- Interpret analysis results to derive meaningful insights aligned with project objectives.
- Understand the structure and components of a comprehensive and concise report, which tailor to different audiences.

Opening Remarks by **Mr. Chea Vibol**, Head of Communications and Membership Development from CCC on this forum: He would like to say thanks to all participants, especially the M&E working group members who always support CCC in organizing this forum to our members. Here I would like to take this opportunity to inform you about the benefits of data analysis and data management and what CCC is doing now. He added that after cooperation from CCC, NGOs have good collaboration with provincial network, and recently we have conducted surveys with NGOs who have received funds from USAID and its side effect after the budget shutdown immediately especially for their beneficiaries. He also informed about the upcoming AGM event which moved to 21 March 2025. Mr. Vibol ended thanks to all participants and M&E working group members, and he believes that this forum will be useful for participants to learn more about the data process and cleaning including data interpretation from our resource person.

Mr. Be Borey, M&E and reporting specialist from CCC review: Last year's forum on 23rd Sept 2024 and he followed up with questions: How would you define baseline study? What did you learn? Have you applied for your work? After that he shared the steps of conducting Baseline study.

Mr. Khim Narith, M&E working group member and Freelance Consultant, shared the Data Processing. He started with questions **on What is data processing?**

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What is Data Processing?



And why do we need to process the data?

1. **Efficiency & Speed** – Digital data is easier to store, search, retrieve, and analyze compared to paper-based records.
2. **Accuracy & Reduced Errors** – Digital systems help minimize human errors in data entry and calculations.
3. **Storage & Space Saving** – Digital files require far less physical space than paper archives, reducing storage costs.
4. **Security & Backup** – Digital data can be encrypted, access-controlled, and backed up to prevent loss or unauthorized access.
5. **Easy Sharing & Collaboration** – Digital documents can be shared instantly across locations, improving teamwork and workflow.

How did you make the data processing?

Manual entry (Excel, Google Sheets, Epi-Data, SPSS,)

Automated tools (KoboToolbox, Google Forms, scanning apps)

Best Practices tips for data entry:

Ensuring **consistency in data format** (dates, numbers, text)

Using **data validation techniques** to reduce errors

Creating a **simple digital survey form**

What is the data Interpretation?

- The process of using diverse analytical methods to review data and arrive at relevant conclusions.

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- To categorize, manipulate, and summarize the information to response to research’s objectives, questions, or hypothesize.

Tips for Data Interpretation

1. **Clean and Validate Your Data** –Verify that the data is correct and free from errors, inconsistencies, or missing information. Reliable data is crucial for accurate interpretation.
2. **Comprehend the Context** – Before analyzing data, make sure you fully understand the objectives, research questions, and hypothesizes.
3. **Use Visualizations** – Graphs, charts, and tables can help clarify complex data and highlight key trends, making it easier to communicate your findings.
4. **Spot Patterns and Trends** – Look for patterns, trends, or correlations within the data. This can help identify relationships between variables and forecast future developments.
5. **Start with Visual:** Explain in your own words what the graph(s), table(s), or diagram(s) is showing
6. **Highlight Key Variables** – Focus on the most relevant data points or metrics that align with your objectives. Avoid becoming overwhelmed by all the data—concentrate on the essentials.
7. **Features in Detail:** Provide details and some discussions.

Mr. Sun Buntha, M&E and Research Manager from Plan International and members of M&E Working Group member facilitated the session of **Data Cleaning**:

ការសម្អាតទិន្នន័យ Data Cleaning



- > **Loading and inspecting data:** ទាញឯកសារចេញពី Digital data collection platform និងពិនិត្យមើល ស្វែងយល់ពីសំណួរដែលយើងចង់សិក្សាពីវានិងត្រូវវិភាគវា ថាតើមានបាត់ ទិន្នន័យ (Missing), ជាន់គ្នា (Duplicates)ដែរឬទេ។
- > **Deleting columns:** ពិនិត្យមើលថាតើមាន columns ណាគ្មានព័ត៌មានដែរទេ ឬ មិនចាំបាច់ ប្រើក្នុងការវិភាគ រួចលុបវាចោល។
- > **Handling duplicates:** បើមានព័ត៌មានណា ឬ អ្នកឆ្លើយតបណាដូចគ្នា អាចលុបមួយចោល។
- > **Data type conversion:** នេះយើងត្រូវស្វែងយល់ពីប្រភេទទិន្នន័យដូចបាននិយាយនៅ ជំហានទី១ ព័ត៌មានខ្លះជាលេខ ជាថ្ងៃខែឆ្នាំ ឬបញ្ចូលខុស តែពេលដែលទាញចេញ (download) មកវាប្រែជាអក្សរ (String) ដែលអាចឲ្យអ្នកវិភាគទិន្នន័យដូចការលំបាក ឬ ការកំណត់ទម្រង់ថ្ងៃខែឆ្នាំមិនស៊ីគ្នា។ ព័ត៌មានខ្លះមិនស៊ីគ្នាពីសេស សំណួរដែលមានរំលង ឬ ផ្សេងៗ។ ដូចនេះត្រូវធ្វើវាឲ្យត្រឹមត្រូវវិញ។
- > **Handling missing data:** dataset ខ្លះមិនមានព័ត៌មានទាល់តែសោះនៅលើ row ខ្លះ យើង អាចលុប row នោះចោល។
- > **Dealing with outliers:** ទិន្នន័យខ្លះរបស់អ្នកឆ្លើយតបពីរបីនាក់វាខុសដាច់ស្រឡះពីទិន្នន័យ របស់អ្នកឆ្លើយតបផ្សេងទៀត។ ឧទាហរណ៍ព័ត៌មានទាក់ទងនឹងអាយុ ប្រាក់ចំណូល ឬចំនួន ផ្សេងៗ។ ករណីនេះយើងអាចលុបវាចោល ឬកែតម្រូវបើអាចមានព័ត៌មានច្បាស់លាស់។

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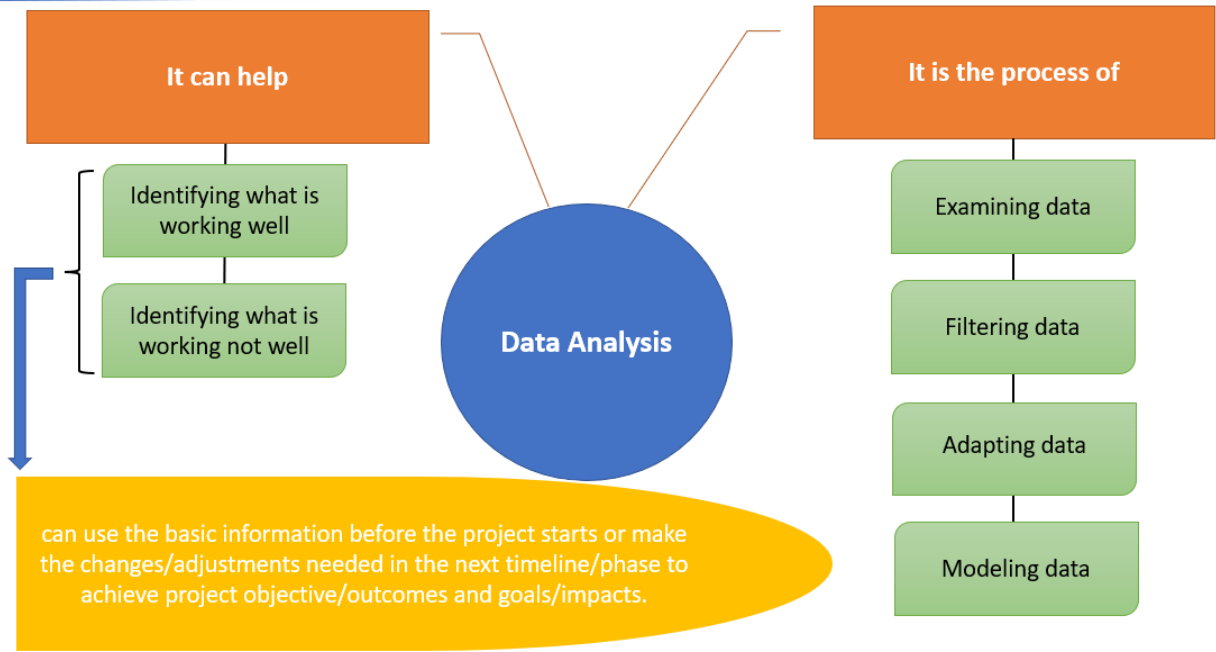
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Q: What if the same person answers two times but different answers?

- Check if the same age, location, child birthdate (then we can make assumption if it is the same person)
- Go back to look at the lock frame we set

ការវិភាគទិន្នន័យ Data Analysis



Tips for the data analysis:

- យល់ពីនិយមន័យនៃសូចនាករនិយមួយៗឲ្យបានច្បាស់
- ដឹងពីការព័ត៌មានដែលត្រូវបំបែក (Disaggregation): ញែកតាមភេទ ក្រុមអាយុ កម្រិតអប់រំ ភូមិសាស្ត្រ ។ល។
- ត្រូវមានផែនការវិភាគទិន្នន័យឲ្យបានច្បាស់
- ដឹងពីប្រភពព័ត៌មាន ថាត្រូវប្រមូលទិន្នន័យពីណាមក
- ស្វែងយល់ពីកម្រងសំណួរឲ្យបានច្បាស់ ថាតើឧបករណ៍ណា ត្រូវនឹងសូចនាករអ្វីខ្លះ
- ដឹងពីសំណួរដែលពាក់ព័ន្ធត្រូវវិភាគដើម្បីឆ្លើយតបនឹងសូចនាករដែលត្រូវវិភាគ

Components of Data Analysis Plan Template:

- លទ្ធផលគម្រោង Project results
- ស៊ូចនាករ Indicator

- និយមន័យនៃសូចនាករ និងភាពជាក់លាក់ Definition and specification
- ឧបករណ៍ប្រមូលព័ត៌មាន Data collection tools
- សំណួរពាក់ព័ន្ធ ដែលត្រូវយកមកវិភាគសម្រាប់សូចនាករនីមួយៗ Related Questions From The Tool
- ព័ត៌មានដែលត្រូវឱ្យបំបែក (Disaggregation)
- កម្មវិធីដែលត្រូវប្រើដើម្បីវិភាគទិន្នន័យ Proposed Program for Data Analysis

Interpreting the data:

What is the data interpretation?

- The process of using diverse analytical methods to review data and arrive at relevant conclusions.
- To categorize, manipulate, and summarize the information in order to response to research’s objectives, questions, or hypothesize.

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V. Detailed Agenda

Date/Time	Content	Responsible by:
8:00AM – 8:30AM	Registration	CCC
8:30AM – 8:40AM	Open Remarks	CCC
8:40AM -9:00AM	<u>Sharing on:</u>	

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	<ul style="list-style-type: none"> - Result of feedback survey on topic selection - Recap from last Learning forum. 	<p>Mr. Be. Borey M&E and Reporting Specialist from CCC</p>
9:00AM -10:00AM	<p>Sharing on:</p> <p>1- Data Processing and Cleaning (Group discussion & Practice)</p>	<p>Mr. Khim Narith M&E and Learning Specialist from Solidarity Center & CCC-M&E working group members</p> <p>Mr. Sun Buntha M&E and Research Manager from Plan International & CCC-M&E working group member</p>
10:00 AM- 10:15 AM	Break	All
10:15 AM- 12:00 PM	<p>Sharing on:</p> <p>2- Data Analysis (Excel)</p> <ul style="list-style-type: none"> - Analysis plan - Dataset - Data analysis <p>Group discussion for practice on data analysis.</p>	<p>Mr. Sun Buntha M&E and Research Manager from Plan International & CCC-M&E working group member</p>
12:00 PM- 1:30 PM	Lunch	All
1:30 PM-3:15 PM	<p>Continue to share on:</p> <p>Data Analysis (Excel)</p> <ul style="list-style-type: none"> - Analysis plan - Dataset - Data analysis 	<p>Mr. Sun Buntha M&E and Research Manager from Plan International & CCC-M&E working group member</p>
3:15 PM - 3:30 PM	Break	All
3:30 PM- 4:45PM	3- Data interpretation	<p>Mr. Khim Narith M&E and Learning Specialist from Solidarity Center & CCC-M&E working group member</p>
4:45PM - 5:00PM	Recap and closing remarks	<p>Mr. Kong Bunna Freeland consultant & CCC-M&E working group member</p>

Note: CCC will use the event photos from the learning forum for posting in CCC's website and other official use. CCC reserves the right to change the agenda based on the availability of the speakers and time constraints.

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