



*Leaving no trade unrecorded*

## Data Quality Monitoring



GHANA  
STATISTICAL SERVICE

# Outline of Presentation

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4. Why Data Quality Monitoring
5. Roles of Data Quality Monitors & Reports
6. Quality Assurance for Field Officers
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# Introduction (1/3)

- The ability to collect high-quality data and release results promptly is key to the success of the ICBT project
- The use of CAPI (Computer-Assisted Personal Interviewing) allows for real-time data quality checks during field data collection, speedy data processing, and timely release of the results
- In view of this, data quality monitoring has been established to monitor data in real-time and ensure that all data from the various borders are devoid of errors

## Introduction (2/3)

- Data Quality Monitors (DQMs) will employ batch query programs to scrutinize synchronized data and generate comprehensive reports outlining data discrepancies
- These reports will be expeditiously disseminated to field officers through their designated Field Supervisors for prompt rectification
- Interviewers are responsible for addressing these identified errors and resynchronizing the updated data with HQ via the Supervisor's guidance

## Introduction (3/3)

- This approach ensures that data collected for the ICBT project adheres to stringent quality standards
- By proactively identifying and rectifying errors, the team safeguards the accuracy and reliability of the project's findings

# Purpose and Learning Outcomes

The purpose of this presentation is to equip trainees with the necessary data quality monitoring procedures in relation to their roles and responsibilities of collecting complete and accurate data for the ICBT field data collection

By the end of this presentation, trainees should be able to:

1. Explain the benefits of data quality monitoring to the exercise
2. Understand the type of errors and how to resolve them
3. Understand the procedures involved to exit the field when field work is completed

# Concepts and Definitions (1/2)

- **Data Quality Monitoring** comprises quality assurance programmes developed for monitoring and assessing the quality of data
- **Data quality** is achieved through proper implementation of established documented processes or systems
- **Data Entry Errors** in the data quality process denote wrongfully entered records or outliers

## Concepts and Definitions (2/2)

- **Questionnaire Gaps** refer to a break in the continuity of case numbers in trade enumerated
- **Questionnaire Duplicates** refers to enumerating the same transporter/trader twice either by the same interviewer or different interviewers working at a Cross Border
  - These duplicates may have the same content.
  - The nature of the duplicates determines how it will be corrected.



# Why Data Quality Monitoring?

The DQM processes have been included in the ICBT to achieve the following:

1. Validate work of interviewers and provide feedback on data quality
2. Ensure that inconsistencies and errors identified are rectified immediately by interviewers on the field
3. Facilitate the editing and cleaning of the data collected during field work in real time
4. Ensure that all Cross Border zones and cases have been assigned and reflected in database to achieve complete coverage

# Roles of Data Quality Monitors (1/2)

The DQM is responsible for the quality of data at the Cross Border level and performs the following roles:

1. Ensures all Cross Border have data devoid of duplicates and gaps
2. Runs checks on data synced to identify all errors and inconsistencies, if any
3. Communicates errors identified to the respective field officers for corrections

## Roles of Data Quality Monitors (2/2)

4. Generates daily reports to track progress of work for each interviewer and team
5. Performs monitoring, supervision and evaluation during field work
6. Clears field teams after completion of field work and forward list of cleared teams/interviewers for payment

# Data Quality Monitoring Reports (1/3)

## Example of Monitor report- *Interviewer Statistics*

ICBT\_Monitor Report 1ST FA\_20240905\_edtj.xlsx - Excel (Product Activation Failed)

	A	B	C	D	E	F	G	H	I	J	K	L	M
	REGION	DISTRICT	BORDER POST NAME	Supervisor Name	NAME OF INTERVIEWER	Total number of traders	Trade_dire ction_imp ort	Trade_d irection - Exports	Traders with livestock	Number of other_sp ecify	Percentag e of other_spe cify	Duplicates	
1	Western	Jomoro	Elubo	Sabina Eshun	Emmanuel Aryee	12	10	2	1	5	41.7	0	
2	Western	Jomoro	Elubo	Sabina Eshun	Prince Owusu	100	78	22	3	100	100.0	0	
3	Western	Jomoro	Jawarh wharf	ATTOH ADRIANA	MISSAH EBENEZER	1	1	0	0	0	-	0	
4	Western	Jomoro	Jawarh wharf	ATTOH ADRIANA	NOMO CHIEF	15	14	1	0	6	40.0	0	
5	Western	Jomoro	Jawarh wharf	ATTOH ADRIANA	LARBI NICHOLAS	30	30	0	1	12	40.0	0	
6	Western	Jomoro	Cocoa Town	PRISCILLA AMPOFOA	LEON BERVEL KWASI	3	0	3	0	1	33.3	0	
7	Western	Jomoro	Cocoa Town	PRISCILLA AMPOFOA	EGAH ROMAIN	80	79	1	4	0	-	0	
8	Western	Jomoro	Cocoa Town	PRISCILLA AMPOFOA	OFORI AMANFO ISAAC	71	0	71	2	0	-	0	
9	Western	Jomoro	Cocoa Town	PRISCILLA AMPOFOA	ADDO ABIGAIL	73	73	0	3	0	-	0	
10	Western	Jomoro	Cocoa Town	PRISCILLA AMPOFOA	ADDO ABIGAIL	73	73	0	3	0	-	0	
11	Upper Eas	Kassena Nank	Paga-Burkina Faso	SABASTIAN YALLEY	NARH FRED A	200	15	185	6	0	-	0	
12	Upper Eas	Kassena Nank	Paga-Burkina Faso	SABASTIAN YALLEY	AKPABLI EMMANUEL	32	30	2	0	2	6.3	0	
13	Upper Eas	Kassena Nank	Paga-Burkina Faso	SABASTIAN YALLEY	OFORI FRANCISCA	51	6	45	0	0	-	0	
14	Upper Eas	Kassena Nank	Paga-Burkina Faso	SABASTIAN YALLEY	KUMI BAFFOUR	41	38	3	0	0	-	0	
15													
16													
17													

enum stats

# Data Quality Monitoring Reports (2/3)

Supervisors are required to fill the correction template for duplicated cases and structural gaps after investigating the cause

i10										
	B	C	D	E	F	G	H	I	J	K
1	regdist	zonecode	Supname	Est_num	Device_ID	start_date	start_time	Action	New Est_num	
2	302	302200001	ATTOH FREDA	129	f14e8eb6599589e7	7082021	930	Delete		
3	302	302200003	ATTOH FREDA	322	f14e8eb6599589e8	7082021	1405	Change		
4	302	302200004	ATTOH FREDA	431	f14e8eb6599589e8	7082021	1640	Delete	30	
5										
6										
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9										
10										
11										

## Sample of Error Messages

# Quality Assurance for Field Officers (1/2)

- Supervisors are to ensure that all training data are cleared from the tablets and switch Cross Borders when they move from one Cross Border to the other to help the team limit (have no) the number of duplicated cases
- Field officers should take time to plan and share their workload to help reduce some of these inconsistencies
- *Notably, Field Officers should ensure that the date, time and time zone on tablets are accurate*

# Quality Assurance for Field Officers (2/2)

- Field officers *should pay attention to what they specify for questions with the option ‘other specify’*
- *Interviewers should ensure that **other items specified, are not in the options listed for such questions***



# Clearance of Field Officers (1/3)

## The Non-Negotiable Clearance Protocol

The Data Quality Monitor has the sole responsibility to recommend the clearance of a team to HQ before IT can collect tablets and other materials.

No other ICBT official is empowered to commence the collection of tablets and logistics without the explicit knowledge and approval of the Data Quality Monitor.

## Clearance of Field Officers (2/3)

A team would be cleared when the ZDQM confirms that the work in each Cross Border is completed and HQ has certified the completeness and quality of the data following these checklist:

1. All informal trade at the Cross Borders have been enumerated and reflected in the database
2. Trade validated with data
3. All data for the Cross Border assigned to a team have **NO**:
  - Duplicates
  - Gaps
  - Partial saves
  - Unjustified other specified

## Clearance of Field Officers (3/3)

4. All inconsistencies and errors identified have been resolved for every interviewer in the team
5. All tablets and accessories assigned to the team have been accounted for and are in good condition
6. ZDQM will compile the list of all teams that have passed all the criteria to process payment

# Field Practice Assessments

1. All Trainees must ensure they collect quality data during the Field Practice.
2. Trainees must actively participate in all practices as it will form part of your assessments.
3. Performance during Field Practice contributes to your final selection for the main ICBT Fieldwork. This reflects your understanding of the ICBT instruments.

# Revision

1. What should you do as a field officer to ensure data quality during data collection?
2. What are the benefits of DQM for ICBT project?
3. Outline the checklist for clearance.

# Answers

1.

- All training data are cleared from the tablets and also be vigilant when making inputs as well as choosing other specify
- The date, time and time zone on tablets are accurate
- Other items specified are not in the options listed for such questions

2.

Validate work of enumerators and provide feedback on data quality

- Ensure that inconsistencies and errors identified are corrected by enumerators on the field
- Ensure complete coverage

3.

- All cases in the Cross Border zones have been enumerated and reflected in the database with **NO**
  - a. Duplicates
  - b. Gaps
  - c. Partial saves and
  - d. Unjustified other specified
- All tablets and accessories assigned to the team have been accounted for and are in good condition

# THANK YOU

## Please Any Question...?

