ATT DATA COLLECTION PROTOCOL

USAID/METSS M&E TRAINING @ GILLBT, TAMALE

JUNE 16, 2015

RELEVANT INDICATORS TO MEASURE

Goal ATT: Increased competitiveness of rice, maize and soy value chains to foster broad-based and sustained economic growth

Ind. 1: Yield per hectare of targeted commodity (maize, rice and soy)

Strategic Objective ATT: Increased availability and use of agricultural technologies to increase and sustain productivity in Northern Ghana

Ind. 2: Number of hectares under improved technologies or management practices as a result of USG assistance

Ind. 3: Number of farmers and others who have applied new technologies or management practices as a result of USG assistance

DATA TO COLLECT AND WHEN

- Frequency of Data Collection: Annually
- Data Collected and Timing:

Phase 1: After Planting

- Number of farmers applying improved tech / mgt practices
- Types of technology/management practices applied
- Area under cultivation (acreage)

Phase 2: Before Harvesting

- Crop harvest / yield
- Will consider the crop cut procedure.

DATA COLLECTION TOOLS & METHODS

Data Collection Forms

(FY14)

- Data expected to be collected for the entire population of the target farmers applying
- LIPs' staff monitored farmers' application and completed forms

Electronic Questionnaires

(FY15)

- Survey to be conducted amongst a sample population

International Fertilizer Development Centre (IFDC)
Feed the Future USAID Agriculture Technology Transfer (FTF-USAID ATT) Project

Indicator # 4.5.2-5: Number of farmers and others who have applied new technologies/management practices

Demographic information

Region		District	
Full Name of Partner/CBO (where applicable)			

Technology/Management Practices Application Information

Name of Beneficiaries	Sex	Type of Technology/Management Practice Applied[1]										Status	
	Male / Female/ Assoc.	Crop genetic	Pest Mgt	Disease Mgt	Soil related	Irrigation	Water Mgt	PH & storage	Climate change	Other	Disagg. not Available	New	Cont

Reporting Period: _____ Date of Report: ____/____/____ Name of Reporting Officer: _____

Signature: _____ Data verified by: _____ Date Verified ____/____/____

[1] A farmer or other beneficiary is counted once, regardless of how many improved technologies or practices he or she applied in a reporting year.

THE SURVEY: Sample Size Determination

Factors to consider:

i. The estimated prevalence of the variable of interest (prevalence or non-prevalence of technology use)

i. The desired level of confidence (95%) and

ii. The acceptable margin of error which is set at 5%.

$$n = \frac{t^2 \times p(1-p)}{m^2}$$

Where:

n = required sample size

t = confidence level at 95% (standard value of 1.96)

p = We will assume about 30% (0.30)* use of technology.

m = margin of error at 5% (standard value of 0.05).

*Estimated use of improved seed in the project area. [According to the IFPRI Ghana strategy support program (2013), about 26% of farmers reported acquiring seed of a modern variety].

The SURVEY: Sample Size Determination-Cont'd.

Because of the cluster sampling approach, there is the need to account for **design effects (DEFF).**

$$n = \frac{1.96^2 \times 0.3(1-0.3)}{0.05^2} = \frac{3.84 \times 0.21}{0.0025} = \frac{0.8067}{0.0025} = 322.7$$

We go with the rule of thumb by taking the mid-point, (**DEFF=2**) which means that only half as many sample cases would be required to measure the given statistic if a simple random sample were used instead of the cluster sample with its (design effect) of 2.0.

$$\Rightarrow n \times D = 322.7 \times 2 = 645$$

- The sample was further increased by ***7% to account for Non-response*** and other contingencies such as recording error.
- This yielded a sample of 690.2 which was rounded up to **694** to provide further cushioning.

DISTRIBUTION OF SAMPLE BY PROPORTION

Region	# of LIPs	District	# of Demos	Target # of participants	Expected Sample Size
Northern	13	20	145	14,500	387
Upper East	6	10	65	6,500	174
Upper West	4	9	50	5,000	133
Total	23	39	260	26,000	**694**

OTHER ACTIVITIES

1. Development of questionnaires

2. Training of LIP staff / enumerators

3. Data collection and supervision

5. Data cleaning, analysis and reporting

THANK YOU