Feed the Future
Feed the Future and CSA metrics

Tatiana Pulido, BFS/SPPM
Purpose of Metrics

• Telling our Story
• Monitor Progress/Context
**High Level Objective:**

Improved nutritional status esp. of women & children

- Increased resilience of vulnerable communities and households
- Increased employment opportunities in targeted value chains
- Improved nutrition-related behaviors

**Programs and policies to:**

- Reduce inequities
- Support positive gains in nutrition

**Feed the Future Goal:** Sustainably Reduce Global Poverty and Hunger

**High Level Objective:**

Inclusive agriculture sector growth

- Agriculture Sector GDP
- Per capita expenditures in rural households
- Women’s Empowerment in Agriculture Index

**Programs and policies to support:**

- Agriculture sector growth
- Increase access to markets and facilitate trade

**Definition of Food Security**

- Prevalence of poverty
- Prevalence of underweight children
- Prevalence of stunted children
- Prevalence of wasted children
- Prevalence of underweight women
- Dietary diversity for women and children
- Exclusive breastfeeding under six months
- Prevalence of maternal anemia

**Key Indicators:**

- Improved agriculture productivity
- Expanding markets and trade
- Increased private investment in agriculture and nutrition activities
- Increased employment opportunities in targeted value chains
- Increased resilience of vulnerable communities and households
- Improved access to diverse and quality foods
- Improved nutrition-related behaviors
- Improved use of maternal and child health and nutrition services

- Gross margins per unit of land or animal of selected product
- Percent change in value of intra-regional exports of targeted commodities
- Value of incremental sales (farm-level)
- Value of new private investment in ag sector or value chain
- % pub. expenditure on ag. and nutrition
- # of local firms/CSO operating sustainably
- Jobs created by investment in agricultural value chains
- Household Hunger Scale
- Value of new private investment in ag sector or value chain
- % pub. expenditure on ag. and nutrition
- # of local firms/CSO operating sustainably
- Jobs created by investment in agricultural value chains
- Household Hunger Scale
- Dietary diversity for women and children
- Exclusive breastfeeding under six months
- Prevalence of maternal anemia
• 15 minutes
• In country teams, define what your near term (5-7 years) ZOI outcome is for one of the 3 pillars.
  • Be as clear and specific as you can
  • Link your outcome to your interventions using “If..., then...” statement
  • What data would you need to collect
• Think about IAPRI’S presentation. Is there information (outcome or context) that you need and can be easily (resources!) collected through a survey?
• 15 minutes
• In country teams, identify CSA annual indicators that fit your intervention using the CCAFS Indicator Identification Tool for one pillar
  • Given your identified outcome and purpose of metrics, do you need the data from the indicator?
  • Do you need to collect all indicators you have identified?
• What disaggregates do you need?
• What’s missing that should be reported annually (think about resources, realism)?
As you work, think about the following questions:

• Are there indicators you are already using or information you are already collecting that meet the need?

• Are existing FTF indicators that would meet the need?

• What information needs to be disaggregated by sex?

• Are these outcomes reasonable within a short term time frame (5-7 years) and with the amount of resources available?

• What have outcomes/impacts of similar activities been? Is there sufficient information on similar activities to answer this question?
Productivity

Mitigation

Adaptation

e.g., Farmer’s gross margin per unit of land/animal/crate

e.g., Number of hectares under improved technologies or management practices as a result of USG assistance

e.g., Greenhouse gas (GHG) emissions, estimated in metric tons of CO2e, reduced, sequestered, and/or avoided as a result of USG assistance
• [https://www.feedthefuture.gov/progress](https://www.feedthefuture.gov/progress)
  – *Volume 7: Measuring Climate Change Resiliency in Feed the Future*
  – *Feed the Future Indicator Definition Handbook*

  – *Sampling Guide for Beneficiary-Based Surveys for Select Feed the Future Agricultural Annual Monitoring Indicators*
  – *Feed the Future Agricultural Indicators Guide*

• [http://www.state.gov/f/indicators/](http://www.state.gov/f/indicators/)
  – *Standard Foreign Assistance Master Indicator List (MIL)*
Using HH survey data to monitor CSA activities

Nicholas Sitko and Antony Chapoto
CSA-GLEE Conference
Lusaka Zambia
March 16th 2016
Objective

- To review the advantages and challenges associated with using nationally representative HH survey data to monitor and evaluate CSA activities.
Background

- The Indaba Agricultural Policy Research Institute (IAPRI) and previously the Food Security Research Project (FSRP) has worked with the GRZ for over 15 years to collect rural HH survey data:
  - Annual Crop Forecast Survey
  - Annual Post-Harvest Survey
  - Rural Agricultural Livelihood Survey, two wave panel (2012 and 2015)
Challenges

- Farm and HH level CSA practices often:
  - Entail a range of farm practices adopted simultaneously (e.g., min tillage with residue retention and rotation)
  - Are adopted in an experimental way by farmers (plot and sub-plot level)
  - Are confused with other sorts of traditional practices (e.g., chitemene and zero tillage or actual residue retention vs leaving stover in field to be grazed)
Challenges cont…

- Have significant temporal elements (e.g., rotations)
- Require substantial biomass generation to be effective.
- Need good data on production beyond yield
- Reasons for adoption and disadoption may include non-quantifiable factors
- Specific practices matter:
  - Eg: how fertilizer was applied is as important as quantity; nutrient mix of fertilizer matters, etc…
IAPRI’s approach

- Collect plot-level and in some cases sub-plot level data:
  - Eg: Primary and secondary tillage method at plot level

- Collect temporal data at plot level:
  - Eg: in this field what did you grow last year? What did you do with the crop residue last year?

- Provide enumerators with photographs to help distinguish practices
### Field file example

**2.2** The sketch shows that this household has _____ fields. Please tell us about each of those fields including fields cultivated or managed on behalf of absentee owners. **Enumerator: Tick if the household has indicated it has at least one field. If no fields, then go to SECTION 2.9.**

**Enumerator:** Ask the respondent to give you the details about all of those fields.

**NOTE:** example: 1=1 field, 2=2 fields, 3=3 fields, etc. If HH04=0 go to SECTION 2.9

**Table 2.2.1 Fields**

| Field ID | Area of field | Distance (record quantity with respect to number of km or how long it takes to walk in minutes) | Unit 1=km 2=minutes | Who primarily decided how to use this field? | What is the tenure status of this field? | How did this household acquire this field? | From whom did this household obtain this field? (see codes below) | Was this field in a wetland/dambo area? (see codes below) | Did the HH irrigate this field? | Is this field prone to soil erosion and/ or flash flooding? | What, if anything, did the HH do to prevent soil erosion and/ or flash flooding in this field? (see codes below) | What main crop or use did the HH put this field to in the 2012/13 agricultural season (2 seasons ago) mainly used or disposed of? (see crop/ use codes below) | How was the crop/ residue from this field used in the 2012/13 agricultural season (2 seasons ago) mainly used or disposed of? (see crop/ use codes below) | What main crop or use did the HH put this field to in the 2014/15 agricultural season? (see crop/ use codes below) | Are there any trees/shrubs growing in this field? 1=Yes 2=No |
|----------|----------------|-----------------------------------------------------------------------------------------------|----------------------|---------------------------------------------|-------------------------------------------|---------------------------------|---------------------------------|---------------------------------|-------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| F01      | F02            | F03                                         | F03a                | F03b            | F04                                         | F05                              | F06                              | F07                              | F08                            | F09                              | F10                              | F11                              | F13                              | F14                              | F15                              | F12                              |
| 1        |                |                                              |                     |                 |                                             |                                  |                                  |                                  |                                |                                  |                                  |                                  |                                  |                                  |                                  |                                  |
| 2        |                |                                              |                     |                 |                                             |                                  |                                  |                                  |                                |                                  |                                  |                                  |                                  |                                  |                                  |
| 3        |                |                                              |                     |                 |                                             |                                  |                                  |                                  |                                |                                  |                                  |                                  |                                  |                                  |                                  |
| 4        |                |                                              |                     |                 |                                             |                                  |                                  |                                  |                                |                                  |                                  |                                  |                                  |                                  |                                  |
| 5        |                |                                              |                     |                 |                                             |                                  |                                  |                                  |                                |                                  |                                  |                                  |                                  |                                  |                                  |
2.3. Land Use

Enumerators: Please list below only cultivated fields from the sketch. These are use codes F01 = 1 or 2 or 3 (cultivated) in Table 2.2.1. Remember to include cassava fields.

Table 2.3.1 Farm Land and Use

<table>
<thead>
<tr>
<th>Field ID (enter appropriate field number from Table 2.1, F01 = 1, 2, or 3)</th>
<th>What main crop or use did the hh put this field in 2013/14? (see codes below)</th>
<th>Enumerators: Check the sketch if the field is monocrop or mixture. 1=Monocrop 2=Mixture</th>
<th>What types of tillage methods were used in this field? (see codes below)</th>
<th>On what percentage of the field did you use the tillage methods indicated in F04a to F04c? (Record the response on the scale of 0 to 100. If only one method was used, enter 100 in F04a and then go to F05)</th>
<th>When was most of the main tillage done? (see codes below)</th>
<th>How many weeks after planting did the hh finish the 1st weeding (manually or with herbicide)?</th>
<th>How many times was the field sprayed with herbicide? (Complete sprays)</th>
<th>How many times was the field sprayed with insecticide? (Complete sprays)</th>
<th>Did the hh apply animal manure and/or plant/manure compost to the field?</th>
<th>What type and quantity of basal dressing fertiliser did the hh apply?</th>
<th>How many weeks after planting did the hh apply basal dressing fertiliser?</th>
<th>What type and quantity of top dressing fertiliser did the hh apply?</th>
<th>How many weeks after planting did the hh apply top dressing fertiliser?</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIELD</td>
<td>FL01</td>
<td>FL02</td>
<td>FL03</td>
<td>FL04a</td>
<td>FL04b</td>
<td>FL04c</td>
<td>FL04d</td>
<td>FL04e</td>
<td>FL05</td>
<td>FL06</td>
<td>FL07</td>
<td>FL08</td>
<td>FL09</td>
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</tbody>
</table>
IAPRI’s approach cont…

- Include perception questions related to adoption and disadoption
- Include clarifying question.
  - Did you apply fertilizer to this field
    - What type
    - When
    - How?
Implications for M&E of CSA

- Large-Scale HH surveys can provide useful evidence to monitor CSA activities
  - Unlike other strategies provide nationally representative data

- Effectiveness depends on:
  - Instrument design
  - Quality of data collection training and oversight

- Improved through complimentary data sources
Thank you

- Survey instruments can be found at:
Feed the Future
Monitoring and Evaluation for CSA

Andy Jarvis
FEED THE FUTURE GOAL

Sustainably Reduce Global Poverty & Hunger

INDICATORS:
Prevalence of poverty &
Prevalence of underweight & stunted children

OBJECTIVE
INCLUSIVE AGRICULTURE SECTOR GROWTH

Improved agricultural productivity
Expanded markets & trade
Increased investment in agriculture & nutrition-related activities
Increased employment opportunities in targeted value chains
Increased resilience of vulnerable communities & households

OBJECTIVE
IMPROVED NUTRITIONAL STATUS (WOMEN & CHILDREN)

Improved access to diverse & quality foods
Improved nutrition-related behaviors
Improved use of maternal & child health & nutrition services
THE WHITE HOUSE

Office of the Press Secretary

For Immediate Release                                      September 23, 2014

EXECUTIVE ORDER

CLIMATE-RESILIENT INTERNATIONAL DEVELOPMENT

By the authority vested in me as President by the Constitution and the laws of the United States of America, and to safeguard security and economic growth, protect the sustainability and long-term durability of U.S. development work in vulnerable countries, and promote sound decisionmaking and risk management, it is hereby ordered as follows:
(b) Reporting.

(i) Agencies with direct international development programs and investments shall report on and track progress in achieving the requirements identified in section 2(a) of this order, including accomplished and planned milestones, through the Federal Agency Planning process set forth in section 5 of Executive Order 13653. Once the Working Group has developed metrics and methodologies as required by section 4(b)(i)(G) of this order, agency reporting shall include an estimation of the proportion of each agency's direct international development programs and investments for which climate-risk assessments have been conducted, as well as an estimation of the proportion of the programs and investments for which climate risk was identified and acted upon.
Sec. 6. **Climate-Change Mitigation.** As agencies incorporate climate-resilience considerations into international development work, they shall continue seeking opportunities to help international partners promote sustainable low-emissions development. The Federal Government has greatly increased the number and variety of international development initiatives focused on climate-change mitigation, including programs to promote clean energy, energy efficiency, and sustainable land-use and forestry practices, as well as partnerships with more than two dozen countries to formulate and implement sustainable low-emissions development strategies. Within 1 year of the date of this order, and building on the full range of efforts the United States has undertaken to date, the National Security Council shall convene relevant agencies and entities to explore further mitigation opportunities in broader U.S. international development work and develop recommendations for further action.
What is ‘Climate-Smart Agriculture’ (CSA)?

1. Sustainably Increase Agricultural Productivity & Incomes
2. Adapt & Build Resilience to Climate Change
3. Reduce or Remove Greenhouse Gas Emissions Where Possible

Practices

Programs

Policies & Institutions
CSA Deep Dives

- Zambia
- Rwanda
- Senegal
- Bangladesh
- Honduras
<table>
<thead>
<tr>
<th><strong>Feed the Future Project</strong></th>
<th><strong>CSA-relevant activities</strong></th>
<th><strong>Productivity &amp; income benefits</strong></th>
<th><strong>Adaptation benefits</strong></th>
<th><strong>Mitigation Benefits</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Better Life Alliance - Global Development Alliance Partner: Community Markets for Conservation COMACO&lt;sup&gt;22&lt;/sup&gt;</td>
<td>A private Zambian company generating income through CSA-relevant approaches. Over 100,000 farmers connected to an extension service. Created cooperative of farmer groups, and deliver services at a cost of US$16/farmer. Work through community leaders.</td>
<td>Value-added opportunities (10-20% price increase) for farms that adopt best practices. Farmer incomes increased from US$100 to $450 per year.</td>
<td>Greater farm resilience from agroforestry, plus diversification strategies including sorghum and cassava.</td>
<td>Lower emission via low tillage, compost, agroforestry also reducing deforestation pressure by generating on-farm wood products.</td>
</tr>
<tr>
<td>Mawa: Zambia Economic Resilience for Improved Food Security Partner: Catholic Relief Services CRS</td>
<td>Project helps households find a balance between subsistence and market agriculture. 5 essential skills are enhanced: <strong>financial</strong> to grow and maintain assets; <strong>group management</strong> to plan and access services collectively; <strong>innovation</strong> to help farmers adapt to change; <strong>sustainable production</strong> to help protect and sustain soil, water and vegetation; and <strong>business and marketing</strong> to prepare farmers for markets.</td>
<td>Sufficient quantities of diverse, nutritious and quality foods at home. Effective engagement with markets. Through trained volunteers families with young children learn essential care, feeding and hygiene practices to support optimal nutrition for pregnant and breastfeeding women and children under two.</td>
<td>Improved NRM and agricultural production.</td>
<td>Reduced crop losses.</td>
</tr>
</tbody>
</table>
Plenty of CSA outcomes, but...

- CSA benefits are largely anecdotal; very little hard evidence available or being collected to robustly articulate the CSA angle of ongoing and new projects. However, CSA outcomes are congruent with the Feed the Future pipeline and significant opportunities exist.

- COMACO has mainstreamed M&E analyses on data on yield, performance, adoption and publishes documents to facilitate learning across the program, but the strict reporting structure of Feed the Future structure relegates many CSA-related benefits to be mentioned only in narratives.

- However, if activities in the portfolio definitively include the climate component there is not full awareness of the meaning and potentials of the systemic Climate-Smart approach among most of the implementing partners.
Put on your CSA goggles....
The CSA Indicator Tool helps to examine the scope of a given program or intervention through the three dimensional lenses of Climate Smart Agriculture (Productivity/Income, Adaptation and Mitigation) and supports the selection of the appropriate set of indicators to measure and track the related outcomes.

This tool strengthens the planning phase of interventions in order to ensure that all potential CSA related outcomes (beyond productivity/income pillar) are properly included in the M&E design.

The tool consists of five steps:

1. **Step 1**: Selection of questions to be addressed & intentionality of desired outcomes
2. **Step 2**: Selection of intended scale of action
3. **Step 3**: Selection of the type of M&E approach envisaged (Uptake vs “Resource/Information”)
4. **Step 4**: Visualization of results: Set of proposed indicators and summary of degree of CSA intentionality of the intervention
5. **Step 5**: Graphic of results: Project Impact Evaluation
6. **Feedback Form**

The proposed set of relevant indicators can be used to inform the design and M&E plan of future interventions in order to properly monitor all possible CSA outcomes.
Step 1: Questions to be addressed & intentionality of desired outcomes

Please select the issues your programme wishes to address and the degree to which it intends to do so:

* **Directly**: if the interventions’ main goal is to specifically address the related question/outcome.
* **Indirectly**: if, despite not having been designed for that purpose, the intervention results may cause an unintentional but positive collateral effect or co-benefit on the related question/outcome.

**Productivity**

*To what extent do your project/intervention aim to:*

- increase food availability and access by rural and urban poor?
- increase yield and productivity?
- improve access to inputs that increase productivity?
- apply management schemes geared at raising the profitability of smallholders agricultural production?
- improve livelihood security and/or decrease poverty?
- support policy and legal framework to improve food security?
Step 2: Intended scale of action

What scale is your intervention aimed at?

Please select an option

- **All**
- **National**
  - Country level
- **Sub-national**
  - Districts, Counties, Provinces
- **Local**
  - Villages, Cities
3 Step 3: M&E approach envisaged

Please select an option

What type of approach is desired?
- Feed the Future Indicators
- WorldBank, DFID, IFAD, GIZ, FAO, Sustainable Food Lab
- New indicators
Put your goggles on!