**How to use this training:**

This training provides a practical approach to creating analysis plans. Before drafting an analysis plan, speak to your manager about whether this is the best approach for your situation.

**Introductory discussion questions:**

1. What is an analysis plan and what might we want to include in it?
2. Why create an analysis plan or what can go wrong if we don’t create it?
3. In what circumstances would you create an analysis plan? Give examples from your work.

**Steps for creating an analysis plan:**

1. Identify the decision that you would like to make after doing the analysis.
   * **Exercise:** What are some examples of analysis projects that you have worked on?
   * **Exercise:** What decisions were you trying to make based on the results of the project?
2. List out the hypotheses that need to be tested in order to make that decision.
   * **Definition:** A hypothesis is a proposed explanation for how something behaves or what effect an event might have.
   * **Process:**
     + Identify a question that you would need to answer in order to make a decision
     + Come up with possible answers to those questions – those are your hypotheses.
     + Prioritize your hypotheses according to importance and ability to collect evidence as proof.
   * **Exercise:** Using the examples of the decisions that you were trying to make after an analysis project identify the hypotheses that need to be proven before you would be confident making a particular decision.
3. Identify the data points that you need to validate those hypotheses
   * **Definition:** Here we are considering any piece of evidence as a “data point”. It can be qualitative (ex. answer to a question from a focus group discussion) or quantitative (ex. the number of farmers that said they sold collateral in from a phone survey).
   * **Note**: You may want to consider asking Maureen or I to help you brainstorm these on your upcoming projects. There will be another training where I will be discussing some basic statistics that might help you identify the most “conclusive” data point.
   * **Exercise:** Select one of the hypotheses from the step above and brainstorm what data points might provide evidence for or against that hypothesis.
4. Identify how you would get this data
   * **Process:**
     + Define the population? Who/what are you trying to learn about?
       - **Definition:** Population is analyst-speak for the entire group of the thing that you are trying to learn about through this sample. It doesn’t have to be a group of people, for example, in my inward growth analysis my “population” was all wards into which we added inward growth sites.
       - **Exercise:** For one of the data points you selected in the previous point what is the population?
     + Select a Method of Data Collection: There are a large variety of ways to collect data. There are a number of concerns both theoretical and practical that should be weighed when making a decision about which one to use. These will be covered in another training.
     + Does data exist already or would you need to collect it?
       - **Example:** If you are looking for repayment rates for clients in EREP sites the information is available on roster. But if you want to find out the number of clients that sold collateral in LR 2017 then you would need to do a survey to collect it.
     + Do you need to sample or do you have information on the entire population?
       - **Example:** Data for some populations are entirely available. For example we have the transaction size for all farmers each year if OAF farmers is your “population”. In that case there is no sample. However, if you wanted to ask each of those farmers about whether they had to sell collateral it would be impractical to call all of them. We would have to sample.
     + If you need to sample, determine the sample size:
       - Qualitative methods: the sample you choose should be sufficiently large to capture all the major types of answers.
       - Quantitative method: the sample you choose should be sufficiently large to draw reliable conclusions about the entire population. There are calculations that can be done to arrive at that sample size based on certain assumptions. Maureen and I will be able to help with this.