Script for Green gram/Chickpea Seed– BDM Experiment and Farmer Survey in Myanmar, August 2018

NOTE: *All text in italics are instructions for the person conducting the auction*. All text not in italics must be read to the farmer.

There will be total of 18 experiments performed in 11 villages in two townships, Kyauk Se and Myin Mu. For each experiment, about 25 to 35 farmers will participate in a willingness-to-pay (WTP) experiment and a pre and post-auction survey as outlined below. The experiment will follow the BDM method in which participants do not compete against one another but against a randomly selected "market price." The auction will be conducted in a group setting. Participants will provide their real auction bids on a bidding sheet and they will bid one pyi of green gram/chickpea seed. We will use the same variety for all products we are going to display in all the rounds. The varieties will be Yezin 14 for green gram and Yezin 6 for chickpea. Each experiment will have two rounds: round 1 (post-treatment 1) and round 2 (post-treatment 2). For the first round, the products to be displayed will be grain purchased from a farmer, grain purchased in the local market, certified seed from township DOA, certified seed from a company, and certified seeds from the local seed producers/farmers group. In the second round, we will display eight products. All eight products except grain will be packaged with their respective brand name labels. The eight products categories will be grain produced by farmer U Myint Kyaw from Nat Kan village in Magway township, grain purchased in the Yan Pal zay, the local market in Magway township, certified seed from township DOA with the brand name and with or without the lab result, certified seed from the Yangon based Mya Sein Lal Yar company with the brand name and with or without the lab result, certified seed from Shwe Taung Thu, the local seed producer group with the brand name label and with or without the lab result. Please note that the displayed products will be randomized (in terms of placement) across rounds and across villages. The order of products displayed will be according to the orders on the bidding sheets selected for that village.

The pre-identified participants will be escorted to a common room or area where the experimental auction will be set up. It is required that only one person per household participate. Upon entering, enumerators will hand participants a consent form and a tag with their participant ID #. Participants will be divided into six groups in which each enumerator will be their designated point of contact. Enumerators will help guide participants to spread out accordingly to ensure participants are not too close to one another. After a brief welcome to the experiment, the lead enumerator will walk through the consent form with the participants explaining what will be required of them for the experiment and that they will have the opportunity to leave the experiment at any time. After explaining the consent form, enumerators will answer any questions participants may have. Enumerators will then ask participants (one-on-one basis) the pre-auction survey questions (Module Y and P). After all of the pre-auction questionnaires are completed by the enumerators, the group will move on to the practice round for the BDM auction as one group.

The script below is for the experiment coordinator running the BDM mechanisms.

Step 1:Introduction/consent

The coordinator will introduce him or herself and reiterate the consent script to the farmers and record their verbal consent to participate.

Step 2: Overall description of Experiment

Conductor:
Ok, thank you for being willing to participate. To begin with, let me give you an overall description of what we will be doing. We are interested in getting an idea about how much you would be willing to pay for different seed products of the same variety of green gram/chickpea. All of the seed we have for this experiment is Yezin 14 for green gram (Yezin 6 for chickpeas). We are going to give you 8,000 kyats as participation fee. This money is yours to keep and use as you wish, including the purchase of seed.

But before we start doing actual auctions, we would like to do a practice auction where you are going to bid your maximum willingness to pay for a toothpaste like this *(show the product)*. We will give each of you 500 kyats for participating in this practice auction. This money is yours to keep and use as you wish, including the purchase of this tooth paste.

Hold up the toothpaste
Do you have any questions so far?

Step 3: Practice Auction

The conductor will begin explaining the practice experiment.

Ok, so let me explain how you can participate in this experiment. First, we will give you a bid sheet like this where you can bid your maximum willingness to pay for the toothpaste like this. Unlike in most auctions, or in studies you may have participated in the past, in this activity it is possible for **everyone** to purchase a toothpaste using part or all of your participation fees--500 kyats.

Let me walk through how you will bid and how we will determine who buys and who does not buy a toothpaste.

First, we will hand out a bidding sheet like this one.

Hold up bidding sheet.

On this bidding sheet, you will write down the maximum amount you would be willing to pay for this toothpaste. You can start bidding from 0 kyats to as much as you are willing to pay with an increment of 50 kyats. So for example, you can bid 0 or 55, 120, 250 kyats, 400, 550 kyats, etc--whatever amount you are willing to pay for this toothpaste. Once everyone has written the most they are willing to pay for this toothpaste, we will collect the bidding sheets and move on to determine how many of you will be able to buy a toothpaste.

To determine who buys we will simply draw a random price. This phone has an app that generate a random number (*show the application on the phone to the participants.*). Using the app, we will randomly generate the number that will be used as "random/selling price" for you to make a purchase of the toothpaste. Note that each price has the equal probability of being selected. We will ask one of you randomly to come and participate in this random price selection. This random number that will be the price of this toothpaste for this activity. We will compare this random price with your bid, which will determine whether you buy the toothpaste at that price or not. Let me explain how we will determine that.

The rule for determining who buys or does not buy is the following: If the price you bid is **greater than or equal to** the random price we will draw using the application, then you purchase the toothpaste, ***BUT*** you pay the randomly selected price – **not** what you bid. This means that if you place a bid greater than the randomly selected price, you pay a lower price for the toothpaste than you bid (unless the random price is the same as your bid).

On the other hand, if the price you bid is **less than** this random price, then you do not purchase the toothpaste, but at the end of this activity we will give you 500 kyats.

If your bid is greater than or equal to, we will give you a toothpaste **and** the remaining amount of your 500 kyats; that is, 500 kyats minus the random price.

For example, if you bid 400 kyats and the random price is 300 kyats, then you would pay 300 kyats for the toothpaste and get the toothpaste, along with the remaining 200 kyats.

If you do not end up buying the toothpaste, you do not spend any of your 500 kyats buying a toothpaste and you will keep your 500 kyats at the end of this whole activity.

So, for example, suppose that "*name an enumerator1 in the room*" bids 150, I bid 500 and "*name an enumerator2 in the room*" bids 1,000 kyats. Now suppose that the random price is 300 kyats, in this case, *enumerator2* would buy the toothpaste, but would pay 300 kyats, not his/her bid of 1,000 kyats. He/she would get a toothpaste and 500-300=200 kyats. I would also buy the toothpaste and pay 300 kyats so I would also get the toothpaste and have a remaining 200 kyats. *Enumerator1* would not buy the toothpaste since his/her bid of 150 kyats is less than random price 300 kyats so he/she would just keep the 500 kyats.

Are there any questions?

Are there any questions so far?

Before we hand out the practice round bidding sheets, let me explain the best strategy in this type of auction. The BEST thing to do is to bid the MAXIMUM amount you are TRULY willing to pay for the product.

If you bid <u>less</u> than what you would be willing to pay might mean that you miss out on buying the toothpaste at a price lower than you would be willing to pay.

Similarly, bidding <u>more</u> than what you would be willing to pay for the toothpaste might mean that you end up having to pay more for the toothpaste than you really want to. For example, if you are willing to pay a maximum of 350 kyats, but you bid 400 kyats and the random price ends up being 400 kyats then you would pay 400 kyats – more than you were willing to!

Overall, your best strategy is to bid the MAXIMUM amount you are TRULY willing to pay.

Ok, let's go ahead and hand out the bidding sheet.

[Hand out bidding sheets]

Ok, go ahead and write down your number from your name tag we handed you earlier – this helps us keep track of everyone's bids- and your bid for the toothpaste. Please do not talk with others until we have collected the bids.

[Collect bidding sheets, making sure that bids and numbers are entered and legible).]

Ok, now let's go ahead and determine the random price.

[Determine random price by calling one of the participant to come and generate a random number using the application on the phone. After generating the number write it down on board. A helper should record this number on one of the bidding sheets so we have this information.]

Ok, so this is the price (*say the random price*) – if you bid more than or equal to this price, you just bought a toothpaste at this price (*say the random price*). If your bid was less than this price (*say the random price*) you will not buy the toothpaste.

Ok, so we will give you the toothpaste (if you bought one) after we do the seed auction.

Step 4: Seed Auction

The auction conductor will begin explaining the seed auction.

ENUMERATOR:

Ok, so hopefully you have a better idea about how this seed auction will operate. It will be very similar to the practice auction you just did, except for a few things:

First, all these products (*pointing out the products displayed on the table*) have one pyi of green gram/chickpea. You will be bidding to purchase a **PYI** bag of green gram/chickpea (*say green gram for the green gram village or chickpea for chickpea village*) for the variety Yezin 14 for green gram (Yezin 6 for chickpeas). You will be making 5 bids for the first round and 8 bids for the second round – one for each green gram/chickpea seed product. HOWEVER, even though you are bidding for five products and eight products over two rounds, ONLY ONE type in ONE round will actually be bought/sold today. You will not know which seed product is going to be sold until after all two rounds of the auction, so you should bid as if each option in each round might be that product that will be sold/bought by you today as part of this activity.

Second, instead of 500 kyats, we are now giving you 8,000 kyats as your participation fees. Just as before, you can use that money to purchase the binding products or however you would like to do. Any amount you do not use to purchase seed will be able to keep with you following the auction.

Third, Green gram/chickpea (*say green gram for the green gram village or chickpea for chickpea village*) is commonly purchased in basket or pyi. You will bid in term of one pyi here. After you have submitted your bids for two rounds, we will draw a random price for ONE of the products you see in front of you here.

Does everyone understand?

Moving on. Third, this phone/computer has an app that generates a random number (*show the application on the phone to the participants.*) like in the practice round for toothpaste. Like before, using the app, we will randomly generate the number that will be used as "random price" for you to make a purchase of one pyi of the binding product. Note that each price has the equal probability of being selected. We will ask one of you randomly to come and participate in this random price selection.

Ok, before we hand out the bidding sheets, let me just remind you that your best strategy is to bid the MAXIMUM amount you are willing to pay for each seed quality. Remember, since we are only going to determine a random price for ONE of the seed qualities, you do NOT need to try and spread your 8,000 kyats across the products included in each round– in fact you can bid as much as you would like to for each seed product and not have to worry about spending more than 8,000 kyats.

Any final questions?

As before, please do not talk with others until we have collected the bids.

[Hand out seed bidding sheets.]

Ok, go ahead and write down your ID number (from the card) on your bid sheets. The five seed products you will bid on in this round are:

(*Describe these products in the random order in which they appear in the bidding sheet)*

Grain purchased from a farmer like you that produces chickpea (green gram)

Gain purchased from a local market

Certified seed from township DOA

Certified seed from the Mya Sein Lal Yar company

Certified seeds from the Shwe Thaung Thu, a seed producers/farmers group in Ta Moe village in Magway township

Let me explain a little bit about these products before we proceed. This [*pointing out the grain purchased from a farmer*] is the grain produced by the local farmer like you. This [*pointing out the grain purchased in the local market*] is the grain that we bought from a local market. This [*pointing out the certified seeds from township DOA*] is the certified seeds that we bought from this township DOA (site phyo yay yone) office. This [*pointing out the certified seeds from the Mya Sein lal Yar company*] is the certified seeds produced by the Mya Sein lal Yar company (site pyo yay myo se company) based in Yangon. Lastly, this [*pointing out the certified seeds produced by the Shwe Taung Thu local seed producers/farmer group in Ta Moe Village]* product was produced by the local seed producers, who are also farmers like you in Ta Moe village in Magway township. These

seed producers have a group and their group is called Shwe Taung Thu producing seeds in Magway township. Remember that the variety is the same for all these products.

The order of the products on your bidding sheets will be the same as the product order displayed on this table. Please bid in term of one pyi. Now, we would like to invite you to come forward to inspect the products.

[*Invite the participants to come to the front to inspect the seed products.]*
[Escort the participants back to their assigned places after their inspection.]

[Ask them to complete the bidding sheets; making sure that bids and numbers are entered in an increment of 50 kyats.]

[Then, ask them to complete the back side for quality rating which measures their perspectives on the quality of the seed products.]

We will now move on to our next round of bidding. The product type we are going to display will be the same as before. But, except grain, all certified seeds will be packaged and labelled. Some packaged seeds would include example of labelling that could include additional information on seed quality based on lab testing. These lab test results will not be on the displayed sample, but if that seed product is randomly selected, the seed will come with seed quality lab test information.

So, now we will have the eight seed products you will bid on this round - grain produced by farmer U Myint Kyaw from Nat Kan village in Magway township, grain purchased in the local market Yan Pal zay, certified seed from township DOA with or without a lab result, certified seed from the Yangon based Mya Sein lal Yar company with or without a lab result and certified seed from the Shwe Taung Thu local seed farmer group with or without a lab result. We will now briefly explain the differences in each product before we hand you your next bidding sheet to fill out.

These two products [*pointing out grain purchased by farmer U Myint Kyaw in Nat Kan village and grain purchased in the Yan Pal market*] are the grain produced by a farmer like you who has surplus grains to sell as seeds to other farmers and grain we purchased in the Yan Pal market in Magway which has traders and exchange centers which sells grains as seeds [*point out each product while explaining this*]. These products [*pointing out all certified products on the table]* are from the same sources as before. One of the differences from what we showed before is that now these products are labeled and packaged. The labels on these seed packages include information such as the name of the organization/company or farmer group that produced the seed, its location, the name of the variety, where/when the seed was produced, etc. Some of these products [*pointing out all certified products on the table]* have additional information about the seed quality in terms of germination rate, purity and moisture content, etc.. For example, one of these products [*pointing out the certified seeds from township DOA with a lab result*] will include a lab test result like this and one [*pointing out the certified seeds from township DOA without a lab result*] does not come with this additional information. You will see the note saying "certification from the laboratory is included" on the packages of the products with the lab result. So now, we have eight products- grain produced by farmer U Myint Kyaw from Nat Kan village in Magway township, grain purchased in the Yan Pal, the local market in

Magway, certified seed from township DOA with or without a lab result, certified seed from the Yangon based Mya Sein Lal Yar company with or without a lab result, certified seed from the Shwe Taung Thu, local seed producer group with or without a lab test result.

Are we clear? Does anyone have any question?

Please take note, however, that on every package of the certified products with a lab result, there is a table printed on the packages, describing the purity, germination rate, moisture level, and life span. The information inside the table (*show the table on the package*) are blank for now. But, when you bid the product, bid as if the table has actual information that guarantees the quality- for example, the germination rate of XX%, for example. If this product is selected for the actual purchase, you will get this seed with the information about the lab test result from us.

Are there any questions?

[Hand out seed bidding sheet #2.]

Ok, go ahead and write down your ID number (from the card) on your bid sheets again. Please place bids for all eight seed products again.

Now we would like to invite all of you to come forward and inspect the products.

[*Invite the participants to come to the front to inspect the seed products.]*
[Escort the participants back to their assigned places after their inspection.]

[Collect bidding sheets, making sure that bids and numbers are entered in an increment of 50 kyats.]

[Then, ask them to complete the other side table with the quality rating which measures their perspectives on the quality of the seed products.]

Random Price determination

Now comes the exciting part of determining who will end up buying one pyi of seed today. Before we draw the random price, we need to decide for which Round and which product the seed will be sold/purchased today. We will first randomly select one of the two rounds. To determine this, we have this 2 folded papers with numbers 1 and 2 written on it. We will ask one of you to pick one of these two papers, and whichever number is picked will be the Round number for drawing the price.

[Determine which Round is binding by asking one of the farmers to pick on the folded sheet of paper. Show everyone which Round was selected]

Now that we have determined the Round number *[selected number]*, the next thing is to select one of the products. To minimize the seed transportation challenges, before coming to this village, we had randomly selected this green gram/ chickpea seed product *[reveal the seed products previously determined]*. So now that we know the Round and the product let's go ahead and determine the random price.

[Determine random price as outlined above while writing it down on board.]

This is the "market price" of this seed product for Round X. If your bid for this product in Round X was more than or equal to this price, you just bought a pyi bag of this quality seed along with the remaining money. If your bid was less than this price you will not buy seed but will receive the 8,000 kyats.

Ok, so we will call you up one or two at a time to give you the seed/toothpaste if you bought them and however much we owe you towards your participation fee for the toothpaste and the seed.

[Hand out the post-auction survey.]

However, before we do that, some of the enumerators will be asking you questions to

complete a post-auction survey. After you have completed your survey, please stop by here to settle your seed/toothpaste purchase and however many Myanmar kyats we owe you.

Thank you all for your time to participate in this study.

Thank you!