

## **Protocol for Baseline Survey in 400 Villages**

1. After entering the village the enumerator should locate the study tubewell using the following criteria:
  - a. If the village is in Rajshahi district, then the study tubewell is the government tubewell that runs with prepaid electronic cards. If the village has multiple such tubewells then the study tubewell should be chosen as the one that serves the most farmers.
  - b. If the village is in Rangpur district, then the study tubewell should be the BMDA deep tubewell that serves the most farmers in the village.
  - c. If the village is in Mymensingh district, then the study tubewell should be the privately-owned shallow tubewell that serves the most farmers in the village (at a minimum of 10 farmers).
2. The village should be excluded if there are less than 10 farmers cultivating boro rice from the study tubewell. If this is true then the team can contact Ashraful for a replacement village in the same Upazila.
3. Once the study tubewell is identified, the enumerator should take the coordinates of the tubewell using the GeoODK survey form “awdvillage”. Note that the GeoODK collect app (android) must be used for filling out the awdvillage survey.
4. The enumerator should then identify the 10 farmers that cultivate boro rice on the plots that are closest to that tubewell and that obtain irrigation water from that tubewell.
5. The names of the farmers should and the GIS boundaries of each of the 10 plots should be recorded in the same GeoODK survey form “awdvillage”. The enumerator should walk the boundaries of each plot when recording the GIS location. The enumerator should use the “manual mode” in ODK GeoTrace. The enumerator should capture the points for each corner of the plot so that the resulting shape in GeoODK represents the actual boundaries of the plot. The enumerator should look at the shape of the plot boundaries in the map to verify that it corresponds to the boundaries of the actual area walked. It helps to zoom in on the map to be able to see the boundaries more precisely.
6. If one farmer holds multiple contiguous plots near the tubewell, then the study plot should be identified as the one that is closest to the tubewell.
7. Once the 10 study farmers and study plots are identified, each of the 10 study farmers should be administered the baseline questionnaire at their home. This questionnaire is “awdbase”. The GeoODK app can also be used for administering this survey.
8. The Farmer ID for each farmer (1-10) must correspond to the Farmer ID’s entered in the form “awdvillage”. Writing the 10 farmer names and ID’s on paper may help the enumerator to verify this.
9. If the farmer is unavailable that day, the enumerator can do the interview with the farmer’s spouse / son or other family member that is knowledgeable about the family’s farming business.
10. Each enumerator should ensure that all of their data is submitted to the ODK server (via 3G or wireless connection) each day. The data will be checked and verified daily.