This blog post is the best overview of our thinking with respect to homa bay:
https://www.givedirectly.org/blog-post?id=3583258097859324587

In addition, Mitch has codified the learnings for the project for future use in our internal wiki here:

[Redacted]

Additional detail on process and excel file context:

1. Conducted desk research on most promising targeting methods
2. Piloted MPI, PPI, numerous types of subjective assessment, numerous types of CBT, different proxies, and blends of these different approaches across 50 villages in Homa Bay
3. Collected recipient and non-recipient feedback after token transfers were sent (See "Targeting Focus Group results"). The focus groups were done on three of the most successful and widely used criteria: [Redacted]
4. Collected consumption data as part of our household census for ~500 households in Homa Bay (see "Consumption data for targeting work" which includes the most complete survey versions)—the monthly per-capita consumption figure gathered from this was the measure of each household's poverty.
5. Analyzed consumption data to see if there were strong predictors of poverty among household's observable characteristics. Requested analysis and advice of several data scientist volunteers. Unfortunately, there was no single, strong predictor of poverty like thatch.
6. Developed multiple possible criteria (i.e. models) (See "Targeting criteria analysis summary") based on the piloting and analysis experience, using factors that were the strongest predictors of poverty, fair, and difficult to game.
7. Selected one of the models based upon our priorities of accuracy, perceived fairness, lack of gameability, and cost.