**Supplementary materials for:**

Socio-economic and Psychological Determinants for Household Water Treatment Practices in Indigenous - Rural Indonesia

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**S1. Sample size determination**

Initially, we estimated the sample size based on the population of the district such that it can statistically represent the district population. We estimated that there are about 53,000 households in that district. Considering 95% confidence interval (CI), 5% margin error, and assuming a response ratio of households who treat water and those who do not treat water of 40:60, we obtained a sample of around 367 samples, therefore, we targeted about 370 samples.

The sample size n was estimated based on the following set of equation (Krejcie & Morgan, 1970):

*n* = sample size

*N* = population size = 53,000

P = fraction of responses (can use either 40% (0.4) or 60% (0.6)

*d* = degree of accuracy 5% (0.05)

$X^{2}$ = critical value for CI 95%

n = $\frac{X^{2}NP(1-P)}{d^{2}\left(N-1\right)+X^{2}P(1-P)}$

Another statistical rule of thumb for determining the number of samples is that 10-15 samples per independent variable (IV) should be used in the analysis (Wilson Van Voorhis & Morgan, (2007). We had 17 psychological factors as IV. The minimum sample size should thus be 17\*15 = 255.

To determine the targeted villages, we discussed with local partners, i.e., LKP Anugerah Anak Sumba (we mentioned in the acknowledgments section), about which sub-districts we should target and came up with the four sub-districts. We then discussed and determined which villages we should visit in each sub-district and came up with a total of nine villages. We then obtained information on the number of households in the target villages.

Since we wanted to target about 370 houses in total, we divided the targeted samples per village based on the proportion of households in the nine villages. For example, the households in village A:B:C is 2:2:1, then the targeted households in village A, B, and C are 148, 148, and 74, respectively (370 samples in total).

Please see these references:

Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, *30*(3), 607–610. https://doi.org/10.1177/001316447003000308

Wilson Van Voorhis, C. R., & Morgan, B. L. (2007). Understanding Power and Rules of Thumb for Determining Sample Sizes. *Tutorials in Quantitative Methods for Psychology*, *3*(2), 43–50. https://doi.org/10.20982/tqmp.03.2.p043

 **S2. Descriptive statistics of the respondents**

|  |  |
| --- | --- |
| Variables | n |
| Mother education |
| No education | 40 |
| Primary school | 212 |
| Secondary school | 45 |
| At least high school | 80 |
| Father education |
| No education | 51 |
| Primary school | 218 |
| Secondary school | 40 |
| At least high school | 68 |
| Any child has diarrhea in the house in the past two weeks |
| Yes | 120 |
| No | 251 |
| Indigenous belief “marapu” |  |
| Yes | 100 |
| Other religion | 277 |
| Type of water source |
| Piped | 127 |
| Surface water (river, well) | 218 |
| Commercial water | 31 |
| Time to get water (go and back) |  |
| <5 min | 194 |
| 5-15 min | 104 |
| >30 min | 79 |
| Type of household wall |
| Non-permanent | 322 |
| Permanent | 49 |
| Type of household roof |
| Non-permanent | 28 |
| Permanent | 343 |
| Type of household floor |
| Non-permanent | 260 |
| Permanent | 111 |
| Access to electricity |  |
| Yes | 197 |
| No | 174 |
| Type of sanitation facilities |
| Have own toilet/latrine | 186 |
| Communal toilet | 78 |
| Open defecation | 107 |
| Household water treatment method |  |
| Knowing more than one method besides boiling | 16 |