

## Appendix 2. Supplemental information on methods, analyses, and results.

### Survey responses

Table A2.1. Sample sizes and basic demographics for data collected in the study villages

| Regency  | Village      | # Respondents |      | % Households | Gender |        | Average Age (2017) |
|----------|--------------|---------------|------|--------------|--------|--------|--------------------|
|          |              | 2012          | 2017 |              | Male   | Female |                    |
| Kapuas   | Village HD1  | 27            | 29   | 33.3         | 25     | 4      | 49.17              |
| Hulu     | Village HD2  | 28            | 41   | 33.3         | 32     | 6      | 46.26              |
|          | Village NHD1 | NA            | 103  | 33.3         | 79     | 23     | 43.78              |
| Ketapang | Village NHD2 | NA            | 32   | 33.3         | 25     | 7      | 49.5               |
|          | Village HD3  | 142           | 160  | 20           | 57     | 103    | 45.43              |
|          | Village HD4  | 174           | 252  | 20           | 187    | 65     | 47.09              |
|          | Village HD5  | 87            | 276  | 20           | 257    | 119    | 46.43              |
|          | Village HD6  | NA            | 213  | 20           | 199    | 14     | 43.16              |
|          | Village NHD3 | NA            | 88   | 33.3         | 84     | 3      | 43.29              |
|          | Village NHD4 | NA            | 93   | 33.3         | 85     | 8      | 46.33              |

### Calculation of wellbeing scores

The calculation of the score for wellbeing variables followed the guidelines of Cahyat (2007). The poverty spheres included Subjective Wellbeing (SWB), a Core of basic needs (material wealth and knowledge spheres), and Context (economic, social, and political spheres). Each of these spheres was composed of 2-4 variables, with integer values between 1 and 3. A score was calculated for each sphere for each individual by normalization (scaling) the variables to get a composite value between 0 and 1. The values for the variables in each sphere were added together, and the sum of the minimum values subtracted<sup>1</sup>. This was divided by the difference between the sum of maximum values and minimum values.

To calculate thresholds, we followed the formula in Cahyat (2007), although one could determine these through stakeholder consultation processes or similar methods. For each variable, 100 is divided by the number of possible values, then these are summed and divided by the number of variables for each sphere<sup>2</sup>. Any values that fell below this threshold were then considered in a “critical” poverty condition. The threshold for determining a high level of wellbeing was calculated by subtracting the critical threshold from 100, and anything above this is considered to be in good condition.

<sup>1</sup>  $[(\text{sum of individuals' scores} - \text{sum of min scores possible}) / (\text{sum of max scores possible} - \text{sum of min scores possible})] * 100$

<sup>2</sup>  $[\text{sum of } [100 / \text{number of possible values for variable}] / \text{number of variables summed}]$

*Correlation matrices*

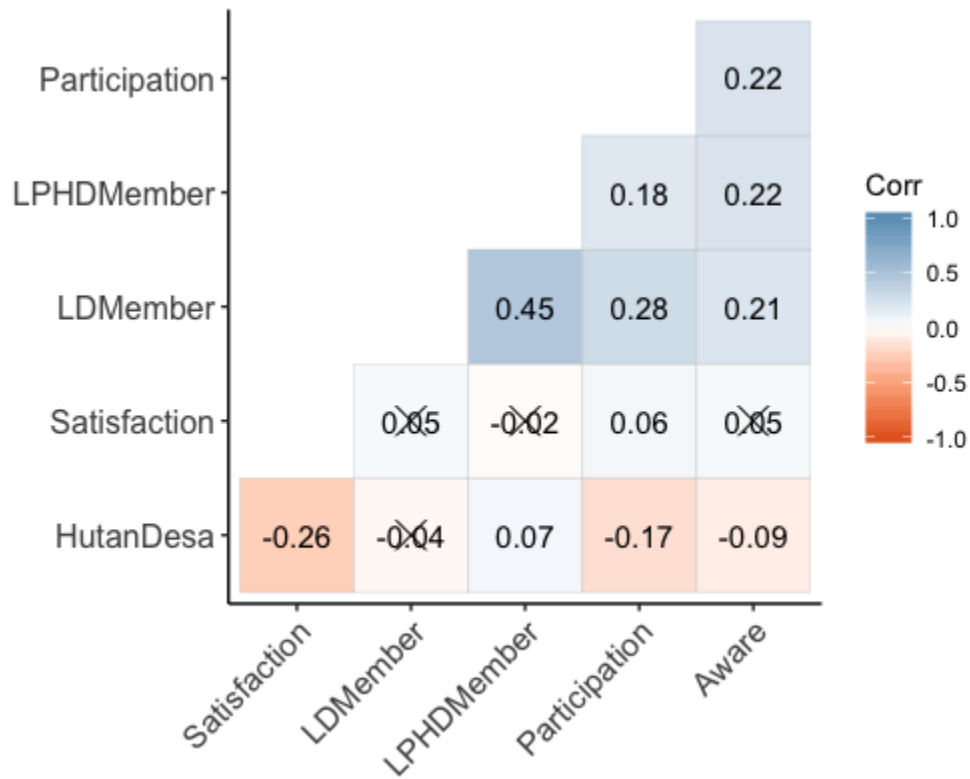


Figure A2.1. Correlation matrix to identify any existing relationships between *Hutan Desa* and participation variables. No strong correlations were identified. Of note, there is a positive correlation between member of any village institution (LD) and member of the *Hutan Desa* management committee (LPHD). We have excluded the LPHD variable from the analysis, because it is only relevant to those communities with *Hutan Desa*; however, it there clearly is overlap between memberships of the two institutions.

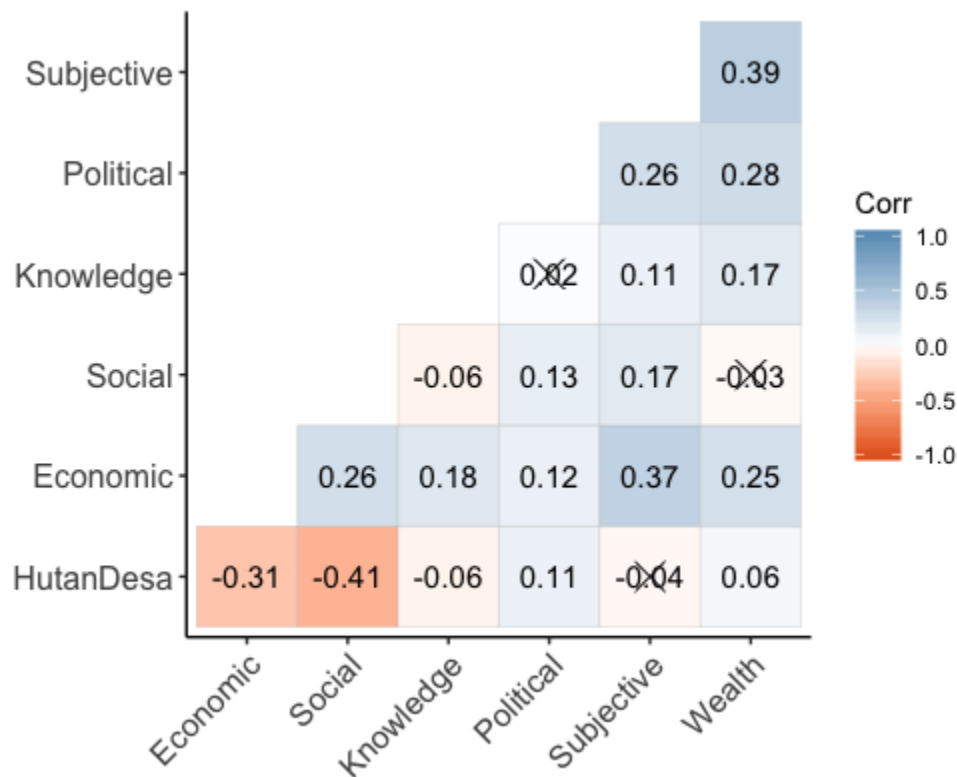


Figure A2.2. Correlation matrix to identify any existing relationships between *Hutan Desa* and wellbeing metrics that might have some bearing on participation or forest use. Knowledge, economic, and social wellbeing were all negatively correlated to *Hutan Desa*. Political wellbeing is positively correlated to *Hutan Desa*, which is reasonable considering it is calculated based on tenure and access to media communication.