

| Condition           |  | Calibration  |  |                         |
|---------------------|--|--|--|-------------------------|
| Pre-Disaster        | Access to Government Resources                       | Sum of scores for each aspect of government resources (Y = 0.2, N = 0)               |  |                         |
|                     |  | Y/N  | Presence of traditional panchayat                                |                         |
|                     |  | Y/N  | Pre- tsu presence of elected panchayat member                    |                         |
|                     |  | Y/N  | Post- tsu presence of elected panchayat member                   |                         |
|                     |  | Y/N  | Pre-tsu high government responsiveness                           |                         |
|                     | Y/N  | Post-tsu high government responsiveness  |  |                         |
|                     | Economic Diversity                                   | 0  | Single-sector economy  |                         |
|                     |  | 1  | Not single-sector economy  |                         |
|                     | Infrastructure                                       | Average of scores for housing, water technology, water supply, roads and electricity |  |                         |
|                     |  | <i>Housing</i>   |  | <i>Water technology</i> |
| 0                   |  | All thatch   | 0 All or nearly all reliant on ground water                      |                         |
| 0.33                |  | Mostly (70% or greater) thatch houses  | 0.33 Most rely on ground water, some government water available  |                         |
| 0.67                |  | Mix of thatch and concrete houses  | 0.67 Most rely on government water supply, some ground water use |                         |
| 1                   |  | Majority (70% or greater) concrete or tiled with concrete walls                      | 1 All or nearly all have access to government supplied water     |                         |
| <i>Water Supply</i> |  | <i>Roads</i>   |  |                         |
| 0                   |  | Inadequate, irregular water supply, people have to purchase water                    | 0 No paved roads   |                         |
| 0.33                |  | Water is available daily but inadequate (less than 20L/person/day)                   | 0.33 Some paved roads, but poor quality                          |                         |
| 0.67                |  | Adequate (above 20L/person/day) water is available daily, but not unlimited          | 0.67 Paved roads in most of community                            |                         |
| 1                   | Fully adequate, water supplies are nearly unlimited  | 1 High-quality paved roads throughout community                                      |  |                         |
| <i>Electricity</i>  |  |  |  |                         |
| 0                   | Most people with no electricity, or one-light scheme |  |  |                         |
| 1                   | Most people with metered electric connections        |  |  |                         |

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|--|--|--|---|--|
|  | Social Vulnerability   | Average of scores for caste, education, and income   |   |  |
|  |  | <i>Caste</i>   | <i>Education</i>  | <i>Income</i>  |
|  |  | 0 Non-Dalit  | 0 High literacy, and frequent high secondary or college education | 0 Higher income, all can meet basic needs and many can afford extra “luxuries” |
|  |  | 0.x X = % Dalit  | 0.4 High literacy, but limited to primary education               | 0.4 Moderate income, people can afford basic items                             |
| 1 Dalit  | 0.8 Mix of illiterate and primary educated   | 0.8 Low income, some people can afford basic items   |   |  |
| Post-Disaster  | Community Participation  | 0 No involvement in any aspect of construction   |   |  |
|  |  | 0.2 Received information about house construction process or saw designs or models   |   |  |
|  |  | 0.4 Gave design feedback which was incorporated or selected model from a group of options                                  |   |  |
|  |  | 0.7 Knew which house was theirs pre-construction & performed small tasks   |   |  |
| 1 Received training in order to effectively monitor construction quality and agency responsive to complaints (if any occurred) |  |  |   |  |
| Post-Disaster  | NGO Presence   | 0 No NGOs in community post-tsunami  |   |  |
|  |  | 0.33 NGO constructed less than all the houses or some small projects only  |   |  |
|  |  | 0.67 NGO constructed all of the houses, but no other projects  |   |  |
|  |  | 1 NGO constructed all houses and did other community projects  |   |  |
| Post-Disaster  | Oversight  | Average of score for oversight during and after construction, with twice the weight given to during construction           |   |  |
|  |  | <i>Presence during construction</i>  | <i>Post-handover follow-up visits</i>                             |  |
|  |  | 0 Constructing agency not on-site during construction  | 0 No follow-up visits   |  |
|  |  | 0.33 Visits less than once per week  | 0.33 Follow-up for observation only (no rectifications)           |  |
| 0.67 One or more visits per week   | 0.67 Monitoring and rectification (if necessary) for up to 3 years post-handover, but not currently on-going |  |   |  |
| 1 Representative on-site everyday  | 1 On-going monitoring and rectification when necessary   |  |   |  |
| Post-Disaster  | Co-ordination  | 0 Multiple uncoordinated agencies doing major reconstruction   |   |  |
|  |  | 0.33 Single agency doing majority of reconstruction with a second uncoordinated agency providing some construction support |   |  |
|  |  | 0.67 Multiple agencies involved in reconstruction, but they coordinated about housing allocation, design and construction  |   |  |
|  |  | 1 Single agency responsible for all reconstruction   |   |  |

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|--|---------------|---|
|  | Embedded-ness | 0 International NGO with no pre-tsunami local relationships<br>0.33 Indian NGO without office in Tamil Nadu or government<br>0.67 Indian NGO with office in Tamil Nadu<br>1 Local NGO with a pre-existing relationship in the community |
|  | Funds         | Directly calibrated based on per household funds (including direct funds, housing and livelihood support)<br>0.05 100,000 Rs/household<br>0.5 175,000 Rs/household<br>0.95 250,000 Rs/household   |

| Outcome           | Calibration  |   |
|-------------------|--|---|
| Economic Recovery | Average of scores for employment and income  |   |
|                   | <i>Change in Employment</i><br>0: pre-tsunami employment is unavailable, and there is no replacement employment<br>0.33: pre-tsunami employment is less available/fewer work days<br>0.67: similar level of employment is available<br>1: improved employment opportunities are available  | <i>Change in Income</i><br>0: majority have decreased income and standard of living is worse<br>0.33: majority have same income, but standard of living is worse<br>0.67: majority have same income, and standard of living is the same<br>1: majority have improved income, and standard of living is better                                       |
| Infrastructure    | Average of scores for housing, water, toilets, roads, transportation, wastewater removal and electricity   |   |
|                   | <i>Housing: minimum of score for housing type and quality of housing</i>   |   |
|                   | <i>Type: People living in pucca (improved) houses</i><br>0: less than 25%<br>0.33: 25%-49%<br>0.67: 50%-74%<br>1: >75%   | <i>Quality of housing</i><br>0: All are poor quality and defects interfere with the safety of the house<br>0.33: Most houses have major defects, but houses are generally safe<br>0.67: Most houses are in good quality, with minor defects observed<br>1: All good quality, no major defects and very few minor defects                            |
|                   | <i>Paved roads in community</i><br>0: No paved roads<br>0.33: Some paved roads, but poor quality<br>0.67: Paved roads in most of community<br>1: High-quality paved roads throughout community   | <i>Access to water</i><br>0: Inadequate, irregular water supply, people have to purchase water<br>0.33: Water is available daily but inadequate (less than 20L/person/day)<br>0.67: Adequate (above 20L/person/day) water is available daily, not unlimited<br>1: Fully adequate, water supplies are nearly unlimited                               |
|                   | <i>People using improved toilets</i><br>0: Less than half of the community are using<br>1: More than half of the community are using   | <i>Transportation access</i><br>0: Infrequently availability of buses, or long walk (1km or more) to a bus<br>1: Good access to transportation, many buses available a short distance away  |
|                   | <i>Waste water removal</i><br>0: Inadequate drainage in community, major water stagnation occurs, flood problems<br>0.33: Inadequate drainage, water stagnation frequent during rains<br>0.67: Usually adequate drainage, minor water stagnation during worst rains<br>1: Adequate drainage system in community, water does not stagnate during rainy season | <i>Electricity</i><br>0: No, some people still lack electricity<br>0.33: All have electricity, but there are frequent power cuts (more than 6 hours per day)<br>0.67: All have electricity and there are moderate power cuts (less than 6 hours, more than 3 hours per day)<br>1: Yes, 100% have a reliable (fewer than 3 hours per day cut) supply |

|                 |  |  |   |
|-----------------|--|--|---|
| Risk Reduction  | Average of scores for evacuation, relocation and hazard training   |  |   |
|                 | <p><i>Evacuation</i></p> <p>0: Almost no community members evacuated after the recent warning</p> <p>0.33: Some community members (less than 50%) evacuated after receiving the recent warning</p> <p>0.67: Most community members (more than 50%) evacuated after receiving the recent warning</p> <p>1: Nearly all community members evacuated after receiving the warning</p> | <p><i>Relocation</i></p> <p>0: The community did not relocate or moved to another major hazard area</p> <p>0.33: Majority did not relocate, and are still in a hazard area</p> <p>0.67: Majority now in low-risk area, but some still in a hazard area</p> <p>1: Community has no major hazard risk, is beyond the CRZ or did land-filling</p> | <p><i>Hazard Training</i></p> <p>0: No disaster preparedness or response training</p> <p>1: Disaster preparedness or response training given to some community members</p>  |
| Social Recovery | Average of scores for amenities, quality of life, population return, recovery equity and social ties   |  |   |
|                 | <p><i>Community Amenities</i></p> <p>0: Fewer community amenities are available since the tsunami</p> <p>1: Same or improved community amenities available as prior to tsunami</p>   | <p><i>Perceived Quality of Life</i></p> <p>0: Most people think quality of life has declined</p> <p>0.33: Most people think quality of life is the same or worse</p> <p>0.67: Most people think quality of life is the same or improved</p> <p>1: Most people think quality of life has improved</p>   | <p><i>Social Ties</i></p> <p>0: Social ties have weakened, there are fewer relationships among neighbors</p> <p>0.33: Social ties are about the same, no new groups</p> <p>0.67: Social ties are the same, some new groups emerged</p> <p>1: Social ties are improved and new groups have emerged</p> |
|                 | <p><i>Recovery Equity</i></p> <p>0: Some groups within the community were excluded from the recovery</p> <p>1: No systemic exclusion of groups from the recovery efforts</p>   | <p><i>Population Return</i></p> <p>0: Full population has not returned, community members now living in separate locations</p> <p>1: Population has either returned or relocated as a single group to a new location</p>   |   |