**Supplementary Material 1: An example of LVI calculation**

**Bethan ward number 1**

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| --- | --- | --- | --- | --- |
| Component | Sub-component | Average value | Standardized value | Average |
| Socio-demographic profile | Percentage of household with female head | 5.26 | =0.052 | SDP=0.306 |
| Age of household head | 56.26 | 0.51 |
| Education level of household head | 36.84 | .36 |
| Percentage of dependent population (less than 15 and more than 65 years of age) | 30.239 | 0.302 |
| Livelihood Strategies | Percentage of household with family member working outside of the community | 72.80 | 0.728 | LS=0.681 |
| Percentage of households dependent solely on agriculture | 94.73 | 0.947 |
| Livelihood diversification Index (1/(number of occupation)) | 0.37 | 0.37 |
| Social Network | Proportion of household who didn’t get help from their neighbor in past 12 months | 20.17 | 0.20 | SN= 0.34 |
| Proportion of people who have not borrowed or lent money in past month | 6.14 | 0.061 |
| Percentage of households that have not asked government assistance | 76.315 | 0.76 |
| Food | Percent of households solely dependent on family farm for food | 2.63 | 0.026 | F=0.35 |
| Average number of months households struggle to find food (12-own\_production) | 5.38 | 0.448 |
| Percent of households that do not save crops | 91.22 | 0.912 |
| Percent of households that do not save seeds | 3.57 | 0.036 |
| Average crop diversification index (1/ (Number of crops grown +1) | 0.33 | 0.33 |
| Water | Percent of households reporting water conflicts | 63.16 | 0.63 | W=0.63 |
| Percent of households that utilize a natural water source | 98.25 | .98 |
| Average time to water source in minute | 6.16 | 0.034 |
| Percent of households that do not have a consistent water supply | 71.05 | 0.71 |
| Inverse of the average number of liters of water stored per household. | 228.07 | 0.81 |
| Disaster | Average number of floods, landslide and drought events in past 6 years | 0.4 | 0.2 | D=0.066 |
| Percent of households that did not receive a warning about the pending natural disasters | 0.87 | 0 |
| Percent of households with an injury or death as a result of the most severe natural disaster in the past 6 years. | 0 | 0 |
| Health | Travel time in minutes to reach the nearest health post. | 42.8 | 0.35 | H=0.223 |
| Percentage of household with a member with chronic diseases | 25.44 | 0.25 |
| Percentage of household with members who left work or school due to illness in past week | 7.01 | 0.070 |
| Climate | Inverse of Average annual precipitation from 1981 January to 2014 | 1254.37 | 0.322 | CV=0.173 |
| Coefficient of variation of monsoon precipitation from 1981 to 2014 | 0.105 | 0.17 |
| Rate of change of maximum temperature from 1977 to 2012 | 0.031 | 0.029 |
| Topography | The standard deviation of Normalized Difference Vegetation Index of the average of July, August and September from 2000 to 2014. | 0.083 | 0.216 | TOPO=0.362 |
| Land cover rank | 3.37 | 0.396 |
| Slope | 23.75 | 0.475 |
|  | LVI | =0.42 | | |
| Exposure | =0.239 | | |
| Sensitivity | =0.416 | | |
| Adaptive Capacity | =0.428 | | |
| IPCC-LVI | IPCC-LVI= ([Exposure]- [Adaptive Capacity])\*[Sensitivity]  =(0.239-0.428)\*0.416  = -0.078 | | |