**Supporting Information**

**Linking Household and Community Social Capital to Smallholder Food Security**

**Supplementary Table 1. Farm products, inputs and management prevalence by various sites.**

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| --- | --- | --- | --- | --- | --- | --- |
| Site | % Cash from Off-Farm | % Produced Large Livestock | % Buying Fertilizer | % with Cash Crops | % Sold Fruit | % Sold Vegetables |
| Bangladesh | 55.7% | 44.3% | 63.6% | 44.3% | 21.4% | 17.9% |
| Ethiopia\* | 4.2% | 96.4% | 0.0% | 38.6% | 0.0% | 0.0% |
| Ghana | 60.7% | 20.7% | 55.7% | 87.9% | 70.0% | 38.6% |
| India | 35.7% | 100.0% | 90.7% | 57.9% | 6.4% | 22.9% |
| Nyando | 45.3% | 73.4% | 20.1% | 43.9% | 13.0% | 31.7% |
| Makueni | 52.8% | 59.3% | 5.7% | 68.6% | 41.4% | 7.9% |
| Mali | 33.3% | 82.3% | 32.6% | 86.5% | 9.2% | 26.2% |
| Nepal | 26.2% | 81.0% | 100.0% | 70.1% | 16.1% | 30.7% |
| Niger | 43.6% | 48.5% | 65.7% | 40.0% | 1.4% | 10.7% |
| Senegal | 47.1% | 87.0% | 72.5% | 97.8% | 2.2% | 26.8% |
| Tanzania | 54.2% | 42.3% | 81.4% | 90.7% | 61.4% | 60.0% |
| Hoima | 40.7% | 17.9% | 17.1% | 91.4% | 27.9% | 25.7% |
| Rakai | 41.4% | 18.6% | 20.0% | 88.6% | 39.3% | 10.7% |

**Supplementary Table 2.** Prevalence of all household group membership types across community network types.

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|  | Prevalence Across Networks |
| **Group Type** | **Disparate** | **Brokered** | **Shared** |
| Savings and/or credit | 10.40% | 65.00% | 34.40% |
| Productivity enhancement | 5.40% | 17.10% | 22.90% |
| Tree nursery/tree planting | 1.90% | 8.40% | 5.20% |
| Marketing agricultural products | 6.70% | 4.80% | 11.30% |
| Vegetable Production | 1.10% | 4.80% | 4.40% |
| Irrigation | 0.70% | 3.10% | 1.30% |
| Crop introduction/substitution | 0.90% | 2.20% | 1.60% |
| Forest production collection | 0.90% | 1.20% | 0.40% |
| Soil improvement activities | 1.10% | 1.00% | 2.60% |
| Water catchment management | 0.90% | 1.00% | 3.60% |
| Seed production | 0.90% | 0.50% | 2.40% |
| Fishing | 0.70% | 0.50% | 4.90% |
| Fish/shrimp ponds | 0.30% | 0.20% | 3.00% |

**Supplementary Table 3.** Means and standard deviations of demographic controls by region. Household education was measured on a scale of zero to three (0=No formal education, 1=Primary, 2=Secondary, 3=Post Secondary).

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| --- | --- | --- | --- | --- | --- |
| Site | % Female Households | Household size | Household education | % of Households Poorest | % of Households Wealthiest |
|   | Mean | Std. Dev | Mean | Std. Dev | Mean | Std. Dev | Mean | Std. Dev | Mean | Std. Dev |
| Bangladesh | 0.007 | 0.084 | 4.92 | 1.280 | 2.05 | 0.756 | 0.093 | 0.291 | 0.178 | 0.384 |
| Ethiopia\* | 0.279 | 0.449 | 5.88 | 1.490 | 1.17 | 0.947 | 0.621 | 0.487 | 0.136 | 0.343 |
| Ghana | 0.064 | 0.246 | 6.22 | 1.340 | 1.38 | 0.662 | 0.092 | 0.291 | 0.164 | 0.371 |
| India | 0.007 | 0.085 | 5.54 | 1.510 | 1.84 | 0.947 | 0.178 | 0.384 | 0.164 | 0.372 |
| Nyando | 0.36 | 0.481 | 4.93 | 1.870 | 1.45 | 0.662 | 0.108 | 0.311 | 0.129 | 0.337 |
| Makueni | 0.329 | 0.471 | 5.20 | 1.630 | 1.72 | 0.768 | 0.086 | 0.280 | 0.121 | 0.328 |
| Mali | 0.014 | 0.118 | 6.68 | 0.912 | 0.78 | 0.490 | 0.163 | 0.371 | 0.163 | 0.371 |
| Nepal | 0.022 | 0.147 | 6.26 | 1.260 | 1.96 | 0.740 | 0.167 | 0.375 | 0.109 | 0.313 |
| Niger | 0.035 | 0.186 | 6.74 | 0.715 | 1.10 | 0.638 | 0.257 | 0.439 | 0.057 | 0.233 |
| Senegal | 0.029 | 0.168 | 6.78 | 0.609 | 0.74 | 0.785 | 0.217 | 0.414 | 0.188 | 0.392 |
| Tanzania | 0.221 | 0.417 | 5.29 | 1.681 | 1.14 | 0.641 | 0.164 | 0.371 | 0.057 | 0.233 |
| Hoima | 0.221 | 0.417 | 5.25 | 1.954 | 1.52 | 0.826 | 0.093 | 0.291 | 0.15 | 0.358 |
| Rakai | 0.194 | 0.397 | 5.38 | 1.879 | 1.58 | 0.678 | 0.100 | 0.301 | 0.092 | 0.291 |

**Supplementary Table 4.** Mean assets across communities and standard deviations. Any household in a given site one standard deviation or more below the site mean was categorized as the “poorest” households. Any household in a given site one standard deviation or more above the site mean was categorized as the “wealthiest” households.

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| --- | --- | --- | --- | --- |
| Site | Mean | Std. Dev | Std. Deviation Below | Std. Deviation Above |
| Bangladesh | 2.70 | 1.829 | 0.871 | 4.529 |
| Ethiopia\* | 0.53 | 0.772 | -0.243 | 1.301 |
| Ghana | 3.14 | 1.467 | 1.676 | 4.61 |
| India | 3.51 | 2.406 | 1.104 | 5.916 |
| Nyando, Kenya | 2.61 | 1.947 | 0.663 | 4.557 |
| Makueni, Kenya | 3.77 | 2.885 | 0.885 | 6.655 |
| Mali | 4.40 | 1.934 | 2.466 | 6.334 |
| Nepal | 6.53 | 2.908 | 3.622 | 9.438 |
| Niger | 1.26 | 0.926 | 0.334 | 2.186 |
| Senegal | 3.01 | 0.85 | 2.157 | 3.857 |
| Tanzania | 1.67 | 1.416 | 0.254 | 3.086 |
| Hoima, Uganda | 2.82 | 1.852 | 0.969 | 4.673 |
| Rakai, Uganda | 2.95 | 2.242 | 0.708 | 5.192 |
|  |  |  |  |  |
| \*Ethiopia standard deviation below is calculated as anyone with zero assets. |

Supplementary Table 5. Model results for fragmented networks when run without wealth control variables (poorest and wealthiest households). Coefficients did not change in significance or direction between models with and without wealth control variables, suggesting that omitted variable bias is likely not significantly affecting model results.

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| Fragmented Networks |  |  |  |  |  |  |
| **Variable** | **Coefficient** | **Std. Error** | **z** | **P value** | **95% confidence interval** |
| Credit group | -0.261 | 0.229 | -1.140 | 0.255 | -0.710 | 0.188 |
| Total groups (no credit) | -0.416 | 0.111 | -3.760 | 0.000 | -0.632 | -0.199 |
| Female household | 0.302 | 0.223 | 0.135 | 0.177 | -0.136 | 0.739 |
| Household size | 0.105 | 0.043 | 2.440 | 0.015 | 0.021 | 0.189 |
| Household education | -0.284 | 0.081 | -3.510 | 0.000 | -0.442 | -0.126 |

Supplementary Table 6. Model results for brokered networks when run without wealth control variables (poorest and wealthiest households). Coefficients did not change in significance or direction between models with and without wealth control variables, suggesting that omitted variable bias is likely not significantly affecting model results.

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| Brokered Networks |  |  |  |  |  |  |
| **Variable** | **Coefficient** | **Std. Error** | **z** | **P value** | **95% confidence interval** |
| Credit group | -0.335 | 0.149 | -2.240 | 0.025 | -0.627 | -0.042 |
| Total groups (no credit) | 0.262 | 0.089 | 2.940 | 0.003 | 0.088 | 0.437 |
| Female household | 1.019 | 0.203 | 5.030 | 0.000 | 0.622 | 1.417 |
| Household size | -0.133 | 0.048 | -2.760 | 0.006 | -0.228 | -0.039 |
| Household education | -0.412 | 0.097 | -4.230 | 0.000 | -0.603 | -0.221 |

Supplementary Table 7. Model results for shared networks when run without wealth control variables (poorest and wealthiest households). Coefficients did not change in significance or direction between models with and without wealth control variables, suggesting that omitted variable bias is likely not significantly affecting model results.

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| --- | --- | --- | --- | --- | --- | --- |
| Shared Networks |  |  |  |  |  |  |
| **Variable** | **Coefficient** | **Std. Error** | **z** | **P value** | **95% confidence interval** |
| Credit group | -0.558 | 0.108 | -5.170 | 0.000 | -0.770 | -0.347 |
| Total groups (no credit) | -0.118 | 0.044 | -2.680 | 0.007 | -0.205 | -0.032 |
| Female household | 0.455 | 0.135 | 3.370 | 0.001 | 0.190 | 0.720 |
| Household size | 0.028 | 0.033 | 0.850 | 0.398 | -0.037 | 0.093 |
| Household education | 0.169 | 0.061 | 2.790 | 0.005 | 0.050 | 0.288 |