Figure S1. Topographic map of Timor-Leste. The exclave of Oecusse is shown in bottom right-hand corner.

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Figure S2. Map of average total annual rainfall in Timor-Leste based on WorldClim data base (Hijmans et al., 2005).

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Figure S3. Map of villages of Timor-Leste coloured based by percent households planting maize.

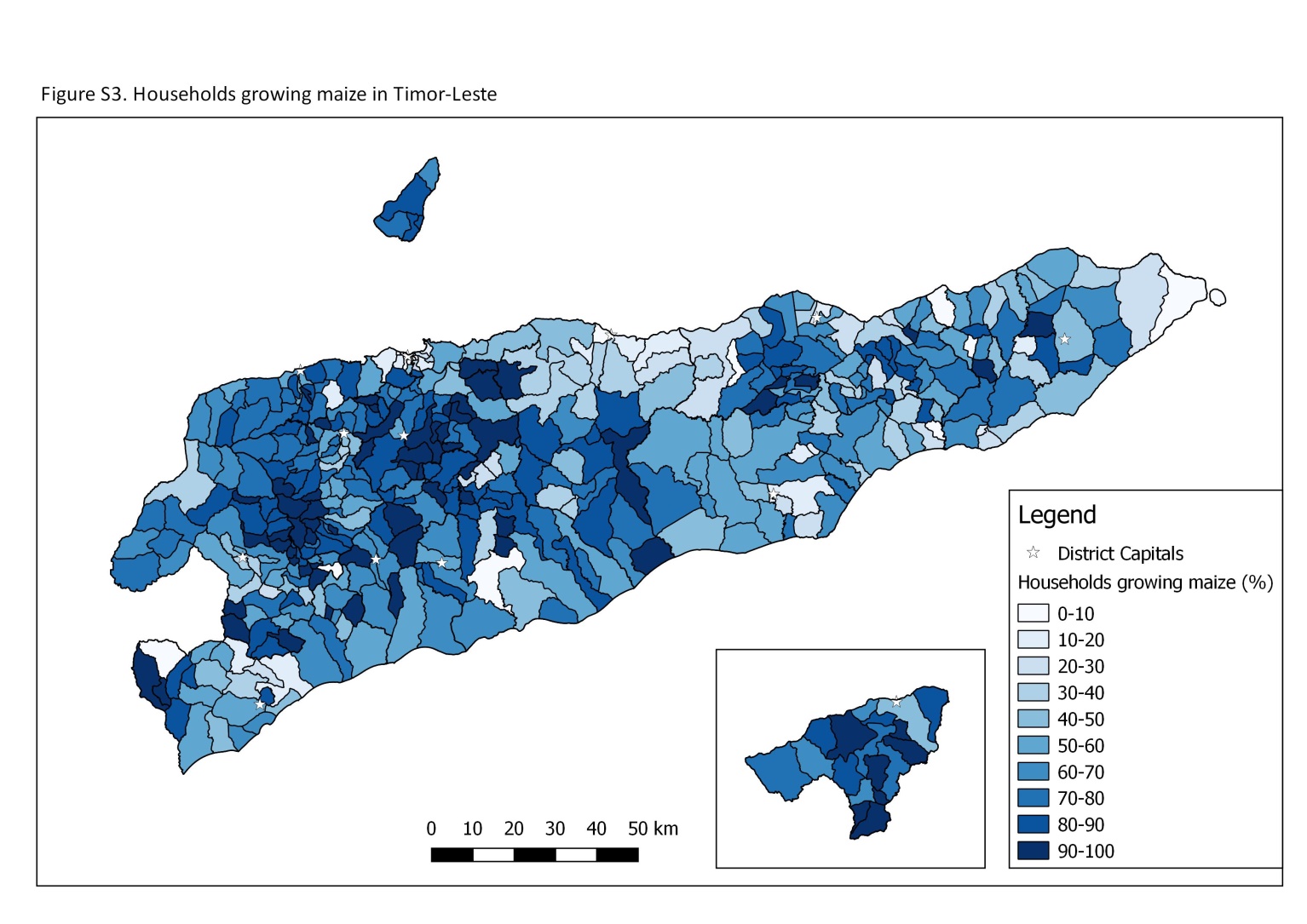


Figure S4. Map of villages of Timor-Leste coloured based by percent households planting cassava.

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Figure S5. Map of villages of Timor-Leste coloured based by percent households planting coffee.

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Figure S6. Map of villages of Timor-Leste coloured based by percent households planting rice.

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Figure S7. Map of villages of Timor-Leste coloured based by percent households raising sheep.

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Figure S8. Map of villages of Timor-Leste coloured based by percent households raising goats.

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Figure S9. Map of villages of Timor-Leste coloured based by percent households raising cattle.

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Figure S10. Map of villages of Timor-Leste coloured based by percent households raising buffalo.

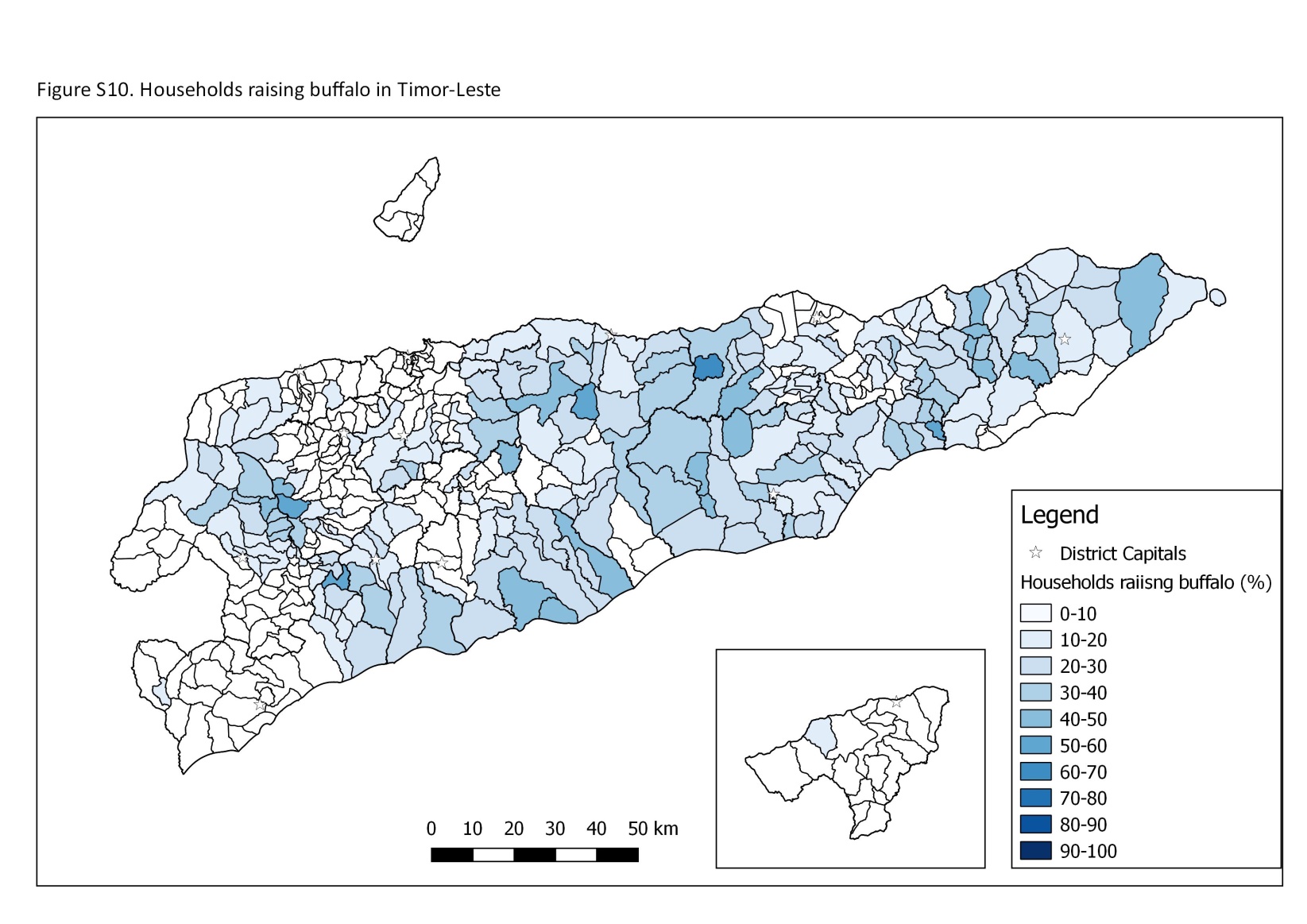


Figure S11. Map of livelihood systems of Timor-Leste with village boundaries.



Table S1**.** Output matrix showing the number of villages in each of the eleven groups based on cluster analysis and the seven zone typology.

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Cluster analysis output (11 livelihoods) | Each of the seven zones | | | |  |  |  |
|  | North coast irrigated | Mid altitude irrigated | South coast irrigated | Mid altitude uplands | High altitude uplands | Northern rainfed | Southern rainfed |
| Rice buffalo cows: Low diversity | 2 | 8 | 29 | 16 | 4 | 13 | 12 |
| Rice and upland cropping : Low animal diversity | 2 | 4 | 30 | 16 |  |  |  |
| Rice High diversity | 3 | 5 | 9 |  |  | 2 | 5 |
| Goats coconut non-rice |  |  |  | 1 | 1 | 8 |  |
| Coffee non rice : V low animals |  |  |  | 8 | 24 |  |  |
| Coffee non rice low diversity |  |  | 1 | 50 | 12 | 6 | 9 |
| Coffee and coconuts High diversity |  |  |  | 2 | 1 |  |  |
| Coffee low diversity |  |  |  | 6 | 11 | 6 | 1 |
| Cow low diversity |  | 2 | 7 |  |  | 17 | 21 |
| Sheep and buffalo low diversity | 4 | 1 | 6 |  |  | 9 |  |
| Non specialized : Low diversity | 1 |  | 3 |  | 1 | 17 | 18 |

Table S2. Characteristics are elevation (m above sea level, asl), annual rainfall total (mm), population density, adult literacy rate (%), percent births delivered by trained assistant, access to electricity (%), percent of female headed households, improved water supply (%), net school enrolment rate (%), sex ratio, distance (km) by road to the district capital, distance (km) by road to national capital, Dili, and a village asset index (ADB, 2013).

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Livelihood zone | Annual Rain (mm) | Elevation (m) | Adult Literacy rate (%) | Births delivered by trained assistant (%) | Population density (people km-2) | Households with mains electricity connenction (%) | Female headed households (%) | Households with improved Sanitation (%) | Households with improved water (%) | Net primary school enrolment rate (%) | Sex ratio | Asset Index 1 | Distance to national capital (km) | Distance to district capital (km) |
| 1. North coast irrigated areas | 1242 | 400 | 45 | 31 | 62 | 34 | 19 | 32 | 57 | 62 | 104 | 0.63 | 218 | 18 |
| 2. Mid altitude irrigated areas | 1616 | 413 | 42 | 22 | 72 | 17 | 1 8 | 20 | 50 | 68 | 101 | -2.57 | 170 | 31 |
| 3. South coast irrigated areas | 1715 | 145 | 55 | 31 | 65 | 22 | 14 | 22 | 47 | 71 | 105 | -1.12 | 197 | 51 |
| 4. Mid elevation uplands | 1938 | 754 | 43 | 17 | 121 | 12 | 15 | 28 | 58 | 65 | 102 | -1.57 | 116 | 36 |
| 5. High elevation uplands | 2147 | 1418 | 40 | 14 | 131 | 10 | 16 | 18 | 51 | 63 | 102 | -1.67 | 89 | 40 |
| 6. North rain-fed areas | 1549 | 467 | 48 | 24 | 85 | 21 | 19 | 31 | 62 | 69 | 101 | 0.51 | 101 | 33 |
| 7. South rain-fed areas | 18677 | 316 | 50 | 23 | 60 | 21 | 17 | 24 | 61 | 77 | 100 | -1.77 | 200 | 35 |
| F prob. | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.006 | <0.001 | 0.009 | 0.045 |  | 0.229 | 0.003 | <0.001 | 0.028 |
| L.S.D. (P<0.05) | 15 | 124 | 6.3 | 7.9 | 39 | 11 | 2.8 | 10 | 13 | 6.2 | ns | 2.1 | 27 | 12 |

1 Asset index is based from the ADB (2013) score. Mean value is zero cross the country, with district means ranging from -2 to 3.