

SHAP Beeswarm — LightGBM (Test 2023)

High

Feature value

Low

Age

Nightlight intensity (z)

District indigenous pop. (z)

Employed

District literacy rate (z)

Poverty index (z)

District electricity access (z)

Household income (log)

District water access (z)

Rural

Secondary-school age (12+)

District dropout rate (admin, z)

Parental education (years)

Poverty quintile

Sum of 11 other features

SHAP Value (impact on log-odds)

-0.5

0.5

1.0