

## Climate change and thermal anomalies explain the recent progression of dengue in Brazil

### Supplementary information

Annex 1: Map of Brazil by macroregions, states and microregions.



Annex 2: Linear regression using dengue incidence rate (per 100,000 inhab.) between 2014 and 2020 as dependent variable and climatic and sociodemographic variables as independent variables.

|                                                                              | Unstandardized Coefficients |         | Standardized Coefficients | t      | Sig. |
|------------------------------------------------------------------------------|-----------------------------|---------|---------------------------|--------|------|
|                                                                              | B                           | Erro    | Beta                      |        |      |
| (Constant)                                                                   | -742,463                    | 103,799 |                           | -7,153 | ,000 |
| Altitude (Altitud)                                                           | ,350                        | ,082    | ,177                      | 4,272  | ,000 |
| Population density                                                           | -,137                       | ,061    | -,085                     | -2,227 | ,026 |
| Population increase (2014 to 2020)                                           | -1,181                      | 11,866  | -,004                     | -,099  | ,921 |
| Proportion of inhabitants living in urban areas                              | 11,527                      | 1,367   | ,335                      | 8,433  | ,000 |
| Dengue incidence rate (per 100,000 inhab.) between 2007 and 2013 (tx2007_13) | ,431                        | ,057    | ,295                      | 7,589  | ,000 |
| Intermittent water supply (%)                                                | 129,303                     | 89,140  | ,054                      | 1,451  | ,147 |
| An_max_2014_20                                                               | 21,540                      | 6,079   | ,222                      | 3,543  | ,000 |
| An_max_ver_2014_20                                                           | -3,236                      | 4,717   | -,046                     | -,686  | ,493 |
| An_min_2014_20                                                               | 4,489                       | 3,862   | ,045                      | 1,163  | ,246 |

Dependent variable: Dengue incidence rate (per 100,000 inhab.) between 2014 and 2020 (tx2014\_20)