



# **Long-Run Aid Effectiveness in Africa's Historical Borderlands: Evidence from the Christian Missionary Expansion**

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# Long-Run Aid Effectiveness in Africa's Historical Borderlands: Evidence from the Christian Missionary Expansion

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## Abstract

The lands surrounding the historical homeland borders in Africa are notoriously linked to conflict and underdevelopment. With half of Africa currently living within 30 km of a homeland border, the borderlands are natural focal points for development aid. We assess the long-run effectiveness of aid in these regions, exploring one of the most widespread aid initiatives in Africa associated with colonial Christian missionary expansion. We examine how proximity to historical homeland borders conditions the positive link observed between colonial missionary activities and economic development today, captured by satellite night light. Based on a novel approach to measuring aid effectiveness, our spatial analyses establish that the outright aid effectiveness associated with missionary activities drops by 50% on average within 40 km from a homeland border and is statistically equal to zero within 15 km away compared to a plausibly neutral reference area.

**Keywords:** Africa, missionaries, development, borderlands, night light, spatial analysis.

**JEL Classifications:** O1, F35, N10, N17

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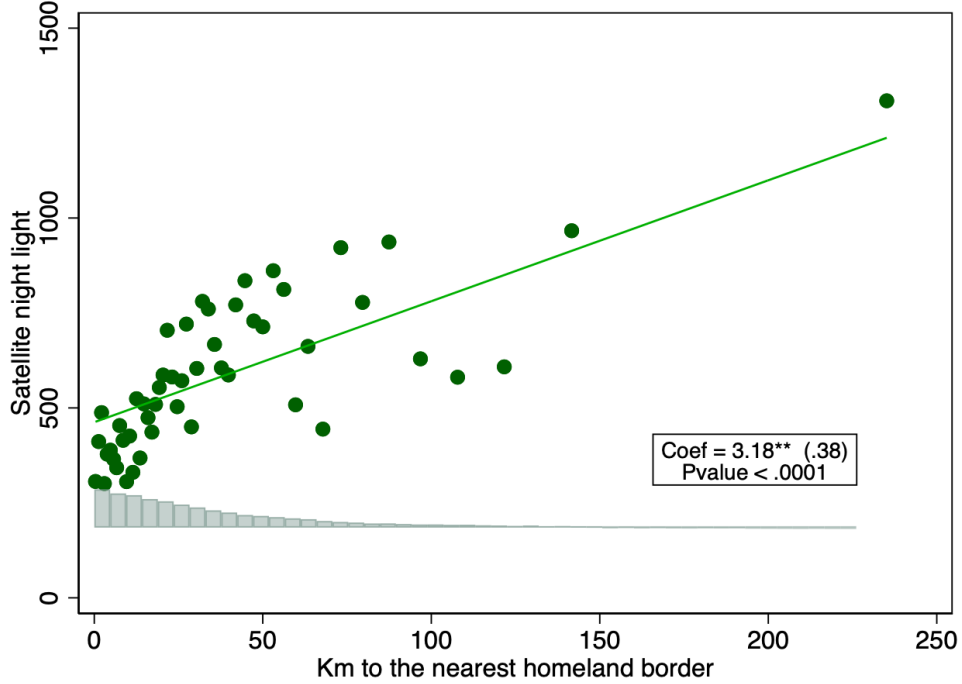
# 1 Introduction

The lands surrounding the historical homeland borders in Africa are infamously recognised for their lack of economic development (e.g. [Besley and Reynal-Querol, 2014](#); [Alesina et al., 2016](#); [Michalopoulos and Papaioannou, 2016](#)). Inhospitable environments, weak property rights, poor governance, and ethnic conflicts are frequently cited as the underlying reasons (e.g. [Easterly and Levine, 1997](#); [Depetris-Chauvin and Özak, 2023a,b](#); [Herbst, 2000](#); [Alesina et al., 2016](#)). With half of all Africans currently living within 30 km of a homeland border, how much can we expect aid initiatives to contribute to economic development in the historical borderlands? We propose a novel approach to measuring aid effectiveness in these regions, exploring one of the most extensive aid initiatives ever conducted in Africa linked to the propagation of Christianity.

Christian missionaries established and ran thousands of local schools and hospitals across the African continent during the colonial era (e.g. [Cole, 1961](#); [Frankema, 2012](#); [Herringer, 2019](#)). The positive long-run effect of their activities on economic development has been described and documented in earlier works (e.g. [Nunn, 2010](#); [Nunn et al., 2014](#); [Cagé and Rueda, 2016](#)). Our study combines two strands of literature – the one about the Christian missionaries’ contribution to development and the one about the lack of development near the historical borders – to assess how much of the advancement in development associated with the missionaries is offset in the historical borderlands. Figure 1 outlines the explored relationship, showing how satellite night light near colonial missionary settlements decreases with proximity to the homeland borders.

Methodologically, we initiate by following earlier research (e.g. [Jedwab and Moradi, 2016](#); [Jedwab et al., 2022](#); [Depetris-Chauvin and Özak, 2023a,b](#)), using a grid-cell approach combined with a spatial discontinuity design. The discontinuity design identifies the distances at which the relationship between development, measured by satellite night light, and mission station and homeland border locations, respectively, becomes statistically insignificant relative to a plausible reference area. These analyses inform – in line with previous studies – that night light shines brighter up to 80 km away from a mission station but is dimmer up to 40 km away from a homeland border compared to areas located further away.

Figure 1: Satellite night light near mission stations by distance to a homeland border



*Notes:* The *binscatter* is made upon a sample of 3,365 colonial mission stations described in the data section. Each scatter point reports the average night light today in areas located less than 10 km from a mission station. The underlying regression model has robust standard errors and shows the unconditional relationship between the reported variables.

Guided by these discontinuities, we arrange our grid cells into a set of treatment and control groups. As in previous work (e.g. [Cagé and Rueda, 2016](#)), grid cells located within 100 km of a mission station make up a plausible treatment group. There is no precise description in the literature about the geographical extent of the historical borderlands (e.g. [Herbst, 2000](#)). We use the results of our border discontinuity analysis to define the borderlands as those areas surrounding the historical borders that underperform today in terms of economic development relative to areas located further away. Our conceptual definition of a borderland thus includes grid cells that range up to 50 km on either side of a homeland border. This way, our analytical framework operates with four distinct zones: two treatment zones (one inside and one outside the borderlands) and two control zones (one inside and one outside the borderlands).

Upon this fourfold classification of our grid cells, we advance with respect to previous research by regressing night light on the *interacted* distances to the nearest mission station and homeland border while controlling for the usual confounding factors. The confounding factors include those generally associated with economic development, such as rainfall and land suitability for agriculture (e.g. [Henderson et al., 2018](#)); those observed to be correlated with the settlements of the colonial Christian missionaries, such as receptiveness to Christianity, temperature, malaria, as well as closeness to coasts, rivers, precolonial cities, and colonial infrastructures like railways (e.g. [Jedwab and Moradi, 2016](#); [Becker et al., 2022b](#)); those that determine the position of natural boundaries, such as rivers and mountainous regions (e.g. [Dikshit, 1999](#)); and those related to foreign postcolonial development projects including the World Bank’s aid programmes (e.g. [Alpino and Hammersmark, 2021](#)).

Our spatial interaction analysis consists of two steps, jointly offering a novel approach to calculating aid effectiveness. The first step identifies the outright (i.e., maximum) correlation coefficient obtained from the regression model between satellite night light and closeness to a mission station, which we associate with an aid effectiveness of 100%. Unsurprisingly, the outright correlation coefficient is observed in the part of our treatment zone situated outside the borderlands and in close vicinity ( $<10$  km) from a mission station. The second step of the spatial interaction analysis estimates how much the outright mission aid effectiveness is offset *inside* the borderlands. This is achieved by comparing the outright correlation coefficient to the correlation coefficients observed as the distance to a homeland border is gradually reduced. The baseline interaction analysis discloses that the outright aid effectiveness drops to 50% within 40 km of a homeland border and is statistically indistinguishable from zero within 15 km. Since two-thirds of Africa’s population lives less than 40 km away from a homeland border today – and one-third within 15 km – our baseline findings highlight the development trap that characterises Africa’s historical homelands.

The baseline results are robust to accounting for spatial autocorrelation by using Heteroskedasticity Autocorrelation Consistent standard errors ([Conley, 1999](#)). Placebo analysis based on randomised distances to mission stations and homeland borders yields null effects, suggesting that the baseline relationships are not spurious. Sensitivity analyses further establish that the qualitative nature of our conclusions continues to hold when excluding remote

regions from the control group; when including only Sub-Saharan Africa; when excluding uninhabited grid cells or grid cells without any night light; and when accounting in different ways for postcolonial World Bank aid projects. Propensity score matching and instrumental variable analyses indicate that the observed relationship between colonial missionary activities and economic development in and outside of the borderlands is not confounded by variation in observable geographical or historical factors or by endogeneity. Moreover, by considering potential dissimilarities between individual mission stations and border segments, our heterogeneity analysis confirms that the qualitative nature of our baseline results remains unchanged after controlling for mission station and homeland border fixed effects. In addition, although the financial resources of the individual mission stations are not disclosed in the source material, we use the number of missionary personnel reported for a subsample of mission stations to present plausibility checks, indicating that the magnitude of missionary resources is unlikely to alter the baseline findings.

Our observations challenge the efficacy of uniform development strategies, underscoring the necessity for interventions tailored to specific regional conditions (e.g. [Barca et al., 2012](#); [Duranton and Venables, 2018](#)). Our study also suggests that aid initiatives (when properly targeted) are associated with increased economic activity long beyond the time of the initial investment (e.g. [Kline, 2010](#)).

## 2 Background

Aid initiatives are commonly employed to stimulate economic development in less developed regions. However, robust evidence of a positive relationship between aid and development remains elusive and depends on local circumstances (e.g. [Bourguignon and Sundberg, 2007](#); [Moyo, 2009](#); [Qian, 2015](#); [Asatullaeva et al., 2021](#)). While democratic institutions tend to improve aid effectiveness (e.g. [Doucouliagos and Paldam, 2010](#)), civil conflict, weak governance, and the absence of strong property rights push in the opposite direction (e.g. [Crosthair et al., 2014](#); [Guillaumont and Chauvet, 2019](#); [Herbst, 2000](#)).

## 2.1 The historical borderlands

Africa's so-called historical borderlands exhibit several characteristics that are observed to erode aid effectiveness. Many of these reflect long-standing societal conditions. Jeffrey Herbst, for example, has argued that state builders before the Western colonisation of Africa struggled to project authority over inhospitable and hence thinly populated territories (e.g. [Herbst, 1990, 2000](#)). Instead, precolonial governments focused their state-creating efforts on the populated centres where taxes were easily collected in exchange for the provision of public goods. The lack of consistent control over their more remote territories – notably those bordering the neighbouring states – led many governments to extract sporadic tributes from the borderlands through institutionalised raiding. This made the borderlands akin to a no man's land with poor prospects for economic development.

In addition to geographic and institutional isolation, other long-run historical forces have contributed to shaping the conditions that characterise many of Africa's borderland regions today. The literature emphasises both the effects of Africa's slave trade, which fractured communities, and the roles of weakened institutions and distorted demographic structures, which undermined state formation, thus compounding the challenges faced by the borderland areas (e.g. [Nunn, 2008](#); [Dalton and Leung, 2014](#); [Michalopoulos et al., 2019](#)).

Making matters worse, recent demographic trends have intensified the poor conditions of the historical borderlands. Postcolonial populations in Africa rose at unprecedented rates, with the already densely populated centres unable to absorb the rising number of people (e.g. [Boone, 2017](#)). This has led to an escalated population concentration in the borderlands, with half of Africa's population now living within 30 km of a homeland border. The combination of demographic pressure, competition over natural resources, weak governance, and insecure property rights has contributed to continued civil conflict in these areas (e.g. [Besley and Reynal-Querol, 2014](#); [Depetris-Chauvin and Özak, 2023b](#)).

## 2.2 The aid-related activities of Christian missionaries

How effective are aid programmes going to be in the historical borderlands? Aid effectiveness is commonly measured by the degree to which aid initiatives succeed or fail in promoting

the development of recipient regions. One of the most extensive foreign aid initiatives ever conducted on African soil was furnished by one of the largest charity organisations in history: the Christian Church. The Church expanded its presence in the developing world in tandem with imperialism in the latter half of the 19th century as part of its diffusion of the Christian faith (e.g. [Nunn, 2010](#); [Rueda, 2023](#)).

The spread of the gospel and Christian religious practices entailed extensive local development programmes including the provision of growth-enhancing public goods, such as educational facilities, printing presses, and healthcare services offered to the broader communities of Africans living in the vicinity of the missionaries' settlements (e.g. [Cole, 1961](#); [Nunn, 2010](#); [Cagé and Rueda, 2016](#); [Herringer, 2019](#); [Meier zu Selhausen et al., 2018](#); [Doyle et al., 2020](#)). Mission schools gradually grew in importance to the point that the Christian missionaries functioned as the official provider of primary education in many parts of colonial Africa (e.g. [Frankema, 2012](#); [Meier zu Selhausen, 2019](#)).

The missionary influences have continued to persist during postcolonial times and are linked to better development outcomes today in and around the locations where the missionaries settled. These effects extend beyond health impacts and human capital accumulation to include the development of growth-promoting institutions, trust building, and improved female agency (e.g. [Nunn et al., 2014](#); [Cagé and Rueda, 2016](#); [Meier zu Selhausen and Weisdorf, 2023](#); [Miotto, 2023](#); [Chiseni, 2023](#); [Fors et al., 2024](#); [Brown, 2024](#)). Recent work has also documented a positive correlation between colonial Christian mission settlements and the later allocation of World Bank aid in Africa (e.g. [Alpino and Hammersmark, 2021](#)).

Although the general effectiveness of aid initiatives in Africa remains contested and depends on local conditions (e.g. [Qian, 2015](#)), the case of the Christian mission influences has yielded some optimistic evidence. While the magnitude of the relationship between contemporary economic development and mission activities continues to be debated (e.g. [Jedwab et al., 2022](#)), there is broad consensus that the original Christian mission stations operated by Europeans and reported in [Roome \(1925\)](#) and [Johnson \(1967\)](#) used in our analysis reveal detectable positive correlations with Africa's economic development today. This makes the Christian missionary expansion important for studying the long-run relationship between localised aid initiatives and later economic development.

### 3 Data

How much of the contribution to Africa’s economic development associated with the Christian missionary activities has been offset in the historical borderlands? To find out, we follow [Jedwab and Moradi \(2016\)](#) and [Jedwab et al. \(2022\)](#) by dividing the African continent up into 257,224 grid cells, each 0.1 x 0.1 arc degrees or roughly 10 square kilometres in size, which is our main unit of analysis.

Our regression analyses use three main variables, which are described in the current section. The outcome variable is satellite night-light intensity, and the two key explanatory variables are the distances to colonial Christian mission stations and precolonial homeland borders (see Figure 2). The descriptive statistics are reported in Table A.1 in Appendix A. In addition, we use a large set of confounding variables described below and illustrated in Appendix B. Appendix C details how the variables were obtained and adapted to our grid-cell analysis, as well as how the underlying data can be accessed.

#### 3.1 Satellite night light

Night light is frequently used as a proxy for economic development in world regions where accurate indicators are absent (e.g. [Henderson et al., 2012](#); [Michalopoulos and Papaioannou, 2018](#)). The night light data commonly used in the literature (e.g. [Cagé and Rueda, 2016](#); [Jedwab et al., 2022](#)) come from the US Defense Meteorological Satellite Program, collected by the US Air Force Weather Agency in 2010 ([Earth Observation Group, 2011](#)). We also consider more recent night light data from 2023 to assess robustness. We normalised the night light to range between zero and one for an easier reading of the results.

#### 3.2 Distance to Christian mission stations

The first main explanatory variable is the geodesic distance from the centroid of each grid cell to a Christian mission station (see Panel A of Appendix B.1). This distance has conventionally served as a proxy in the literature for the influence of Christian missionary activities on development (e.g. [Cagé and Rueda, 2016](#); [Jedwab et al., 2022](#)).

The distances to missionaries are calculated based on two data sets that report the locations of colonial Christian mission stations, as enumerated in the 1920s. The first data set is the so-called *Roome Atlas* (Roome, 1925), digitised by Nunn (2010). The second data set is a more recently recovered collection of mission stations, published in Johnson (1967) and digitised by Becker et al. (2022b). While the Roome Atlas is the most common data set used in earlier works, Johnson’s collection is significantly more elaborate (Johnson, 1967, p. 170). The two collections tally 3,365 mission stations (see Figure 2), with 2,161 coming from Johnson (1967). The collections do not include the many smaller mission stations run exclusively by Africans. These are usually located some 20-30 km from the pioneering mission stations operated by Europeans and shown in Jedwab et al. (2022) to be unassociated with elevated satellite night light today.

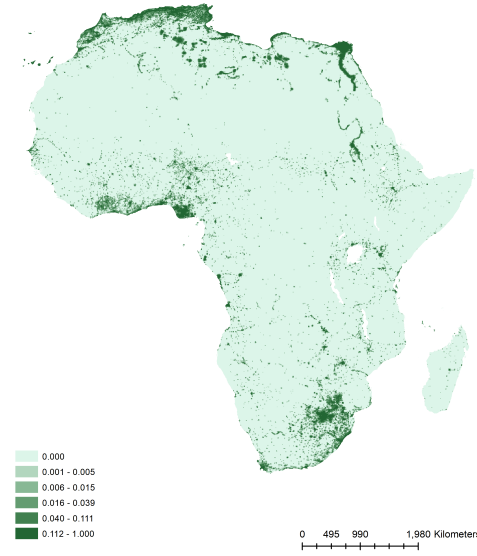
A subsample of the pioneering mission stations reported in the World Missionary Atlas (Beach et al., 1925) provides additional details on the size of the mission stations’ foreign staff in 1924. The staff count discloses the number of doctors affiliated, thus indicating whether or not the mission station was running a local hospital (Becker et al., 2022a; Becker and Meier zu Selhausen, 2023). The staff details of the mission stations included in the World Missionary Atlas allow us to consider the importance of the magnitude of missionary resources for economic development today, as well as for our findings below.

### 3.3 Distance to precolonial homeland borders

Our second main explanatory variable is the geodesic distance from the centroid of each grid cell to a precolonial homeland border (see Panel B of Appendix B.1). The boundary information comes from a 1959 ethno-linguistic map created by American anthropologist George Peter Murdock (Murdock, 1959), digitised by Nunn (2008). Murdock’s map (see Figure 2) was constructed using primary sources from the latter half of the 19th century and the early 20th century and describes 825 ethnic homelands.

Figure 2: The three main variables of interest

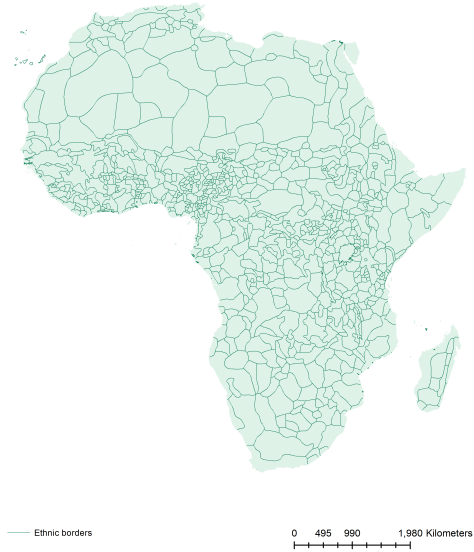
(A) Satellite night light



(B) Colonial mission stations



(C) Precolonial homeland borders



*Notes:* Night light as of 2010 is reported at the grid-cell level, each of which is 0.1 x 0.1 arc-degrees large.  
*Sources:* Satellite night light: [Earth Observation Group \(2011\)](#). Christian mission stations: [Roome \(1925\)](#); [Johnson \(1967\)](#); [Nunn et al. \(2014\)](#); [Becker et al. \(2022b\)](#). Homeland borders: [Murdock \(1959\)](#); [Nunn \(2008\)](#).

The atlas has been subject to criticism in earlier research (e.g. [Naroll et al., 1964](#); [Tobin, 1990](#); [Jerven, 2011](#)). More recent studies have, however, documented that Murdock’s atlas has significant contemporary relevance ([Michalopoulos et al., 2019](#); [Bahrami-Rad et al., 2021](#); [Depetris-Chauvin and Özak, 2023a,b](#)). For example, closeness to the homeland borders reported in the atlas was recently used as proxies for the influences of weak property rights and ethnic tension on economic development in Africa (see [Depetris-Chauvin and Özak, 2023a,b](#)). Our placebo analysis adds further confidence in the relevance of Murdock’s atlas, showing that our findings dissipate when the distances to the historical homeland borders are randomised.

### 3.4 Confounding factors

We also account for an extensive list of confounding factors commonly deployed in related studies. In addition to the present-day population density of each grid cell ([Rose and Bright, 2014](#)), the confounding factors include elevation and ruggedness ([Danielson and Gesch, 2011](#)); malaria and tsetse ecology ([Kiszewski et al., 2004](#); [Alsan, 2015](#)); rainfall and temperature ([Fick and Hijmans, 2017](#)); and land suitability for agriculture ([Ramankutty et al., 2002](#)). Grid cells that are presently uninhabited or located on an island ([Patterson and Kelso, 2012](#)) or in a major city ([Patterson and Kelso, 2012](#)) alongside grid cells situated in Africa below the Sahara are accounted for using binary variables.

We further control for countries and colonial powers in 1913 alongside the geodesic distances to precolonial cities ([Chandler, 1987](#)); to historical Muslim seat locations ([Sluglett and Currie, 2015](#)); to railways and historical explorer routes ([Nunn and Wantchekon, 2011](#)); to colonial Protestant printing presses ([Cagé and Rueda, 2016](#)); to coasts and navigable rivers ([Andreadis et al., 2013](#)); to major mineral deposits ([Schulz and Briskey, 2005](#)); to postcolonial World Bank aid projects 1995-2014 ([AidData, 2017](#)); and to today’s national (inland) borders ([United Nations Geospatial, 2018](#)). Appendix B.2 charts the entire set of confounding factors.

## 4 Methodology

Previous studies have established that satellite night light is more intense near colonial mission stations (e.g. [Cagé and Rueda, 2016](#)) but diminished near historical homeland borders (e.g. [Michalopoulos and Papaioannou, 2014](#); [Depetris-Chauvin and Özak, 2023a,b](#)). Our study reproduces these earlier conclusions using a simple regression setup that – similar to previous studies – does not account for the possibility that the two potential forces might be interrelated (see Figure 1). To achieve this, we use spatial discontinuity analyses to determine the distances at which the correlation between night light on the one hand and mission stations or homeland borders on the other ceases to be statistically significant relative to a plausible reference area.

The discontinuity analyses enable us to explore the correlation between satellite night light and proximity to colonial mission stations, evaluated at various distances from the homeland borders. To this end, we propose a novel approach to measuring aid effectiveness. In particular, we first estimate the outright mission aid effectiveness, defined as the maximum correlation coefficient between night light and proximity to missionaries, which we expect to observe outside the borderlands. Against this backdrop, we can then track the effectiveness of mission aid by comparing the outright correlation coefficient to the correlation coefficients observed as the distance to a homeland border is gradually reduced.

### 4.1 Spatial discontinuity analyses

The discontinuity analyses indicate how far away from a mission station or homeland border a statistically significant correlation with night light can be detected compared to areas located further away. To achieve this, we run two separate linear regression models. One explains the night light in each grid cell by the distance to the nearest mission station, and the other by the distance to the nearest homeland border. Both regression models are described as follows:

$$\text{Night light}_{ck} = \alpha + \beta_k \text{Distance dummy}_{ck} + \gamma \text{Uninhabited}_c + \eta_c \quad (1)$$

where  $Night\ light_{ck}$  is the normalised night light in grid cell  $c$  located  $k$  km away from a mission station or homeland border;  $Distance\ dummy_{ck}$  is a binary variable taking on the value one if grid cell  $c$  is located  $k$  km away from a mission station or homeland border and zero otherwise;  $Uninhabited_c$  is a binary variable taking on the value one if grid cell  $c$  is uninhabited today, included to ensure that observed patterns in night light are not mechanically driven by grid cells that are currently unpopulated but may still reflect historical effects of missions or borders; and  $\eta_c$  is an error term for grid cell  $c$ .

## 4.2 Spatial interaction analysis

Upon observing the two spatial discontinuities above, we move beyond earlier works by using spatial distance interaction analysis. This analysis explores the correlation between night light and the *interacted* distances to mission stations and homeland borders using the following linear regression model:

$$Night\ light_{cij} = \alpha + \beta_{ij}Distance\ dummy_{cij} + \mathbf{X}_c\gamma + \delta_{c,country} + \delta_{c,coloniser} + \epsilon_c \quad (2)$$

where  $Night\ light_{cij}$  is the normalised night light in grid cell  $c$  located  $i$  km away from a mission station and  $j$  km away from a homeland border;  $Distance\ dummy_{cij}$  is a binary variable taking on the value one if grid cell  $c$  is located  $i$  km from a mission station and  $j$  km from a homeland border and zero otherwise;  $\mathbf{X}_c$  is a matrix including the values of the confounding factors in grid cell  $c$ ;  $\delta_{country}$  and  $\delta_{coloniser}$  are country and coloniser fixed effects with respect to grid cell  $c$ ; and  $\epsilon_c$  is an error term for grid cell  $c$ .

The key parameter of interest  $\beta_{ij}$  captures the average contribution to night light of grid cells located  $i$  km from a mission station and  $j$  km from a homeland border relative to a well-defined reference area. We convert the observed  $\beta_{ij}$  values into measures of aid effectiveness by comparing the maximum (outright) value of  $\beta_{ij}$  produced by the regression model (expected to be found in the treatment zone *outside* the borderlands) to the  $\beta_{ij}$  values observed in the treatment zone *inside* the borderlands.

## 5 Results

### 5.1 Baseline results

As outlined above, we first turn to the spatial discontinuity analysis, estimating the correlation coefficients between night light and the respective distances to mission stations or homeland borders as specified in Equation 1. Guided by the identified discontinuities, we then establish the confines of our treatment and control areas, upon which we proceed to conduct the spatial interaction analysis specified in Equation 2.

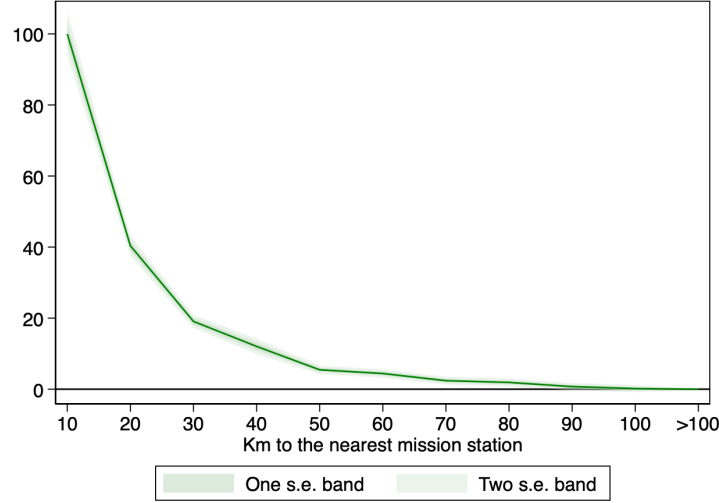
#### 5.1.1 Spatial discontinuity results

The spatial discontinuity analyses identify the distance thresholds beyond which a statistical relationship between night light and proximity to missionaries or homeland borders is no longer observable. Consistent with prior findings that a statistical relationship is absent beyond 100 km ([Cagé and Rueda, 2016](#)), we define grid cells located more than 100 km away from a mission station or homeland border as the reference category for the discontinuity analyses. In order to identify the discontinuity distances, grid cells within the range of 100 km are grouped into 10-km bins.

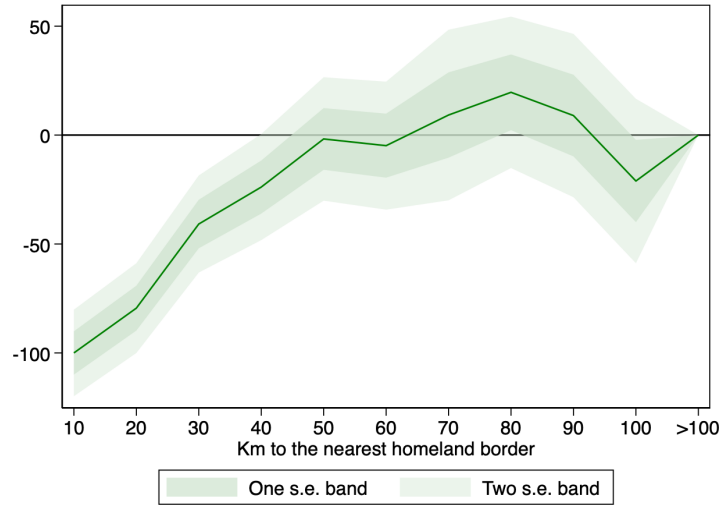
Figure 3 shows the estimated coefficients as a percentage of the maximum night light associated with approaching a mission station or a homeland border vis-à-vis the reference area. The shaded areas represent  $\pm 1$  standard errors (darker band) and  $\pm 2$  standard errors (lighter band) around the coefficients to illustrate the degree of uncertainty. The results of the two discontinuity regressions are reported in Tables D.1 and D.2 in Appendix D. All variables are log-linearised except the binary ones. The model has robust standard errors and controls for grid cells that are uninhabited today.

Figure 3: Satellite night light near mission stations and homeland borders

(A) Light <10 km from missions relative to further away (%)



(B) Light <10 km from borders relative to further away (%)



*Notes:* Coefficients and confidence intervals are derived from the regression model (see Equation 1) described in the text and reported in Tables D.1 and D.2 (Appendix D). The estimated coefficients concern the deviation in night light relative to a reference area of grid cells located further than 100 km away from a mission station (Panel A) or a homeland border (Panel B). The graphs show the percentage of the maximum (Panel A) and minimum (Panel B) coefficients obtained from the regression models. All variables are log-linearised except the binaries. The regression models have robust standard errors and control for grid cells that are uninhabited today.

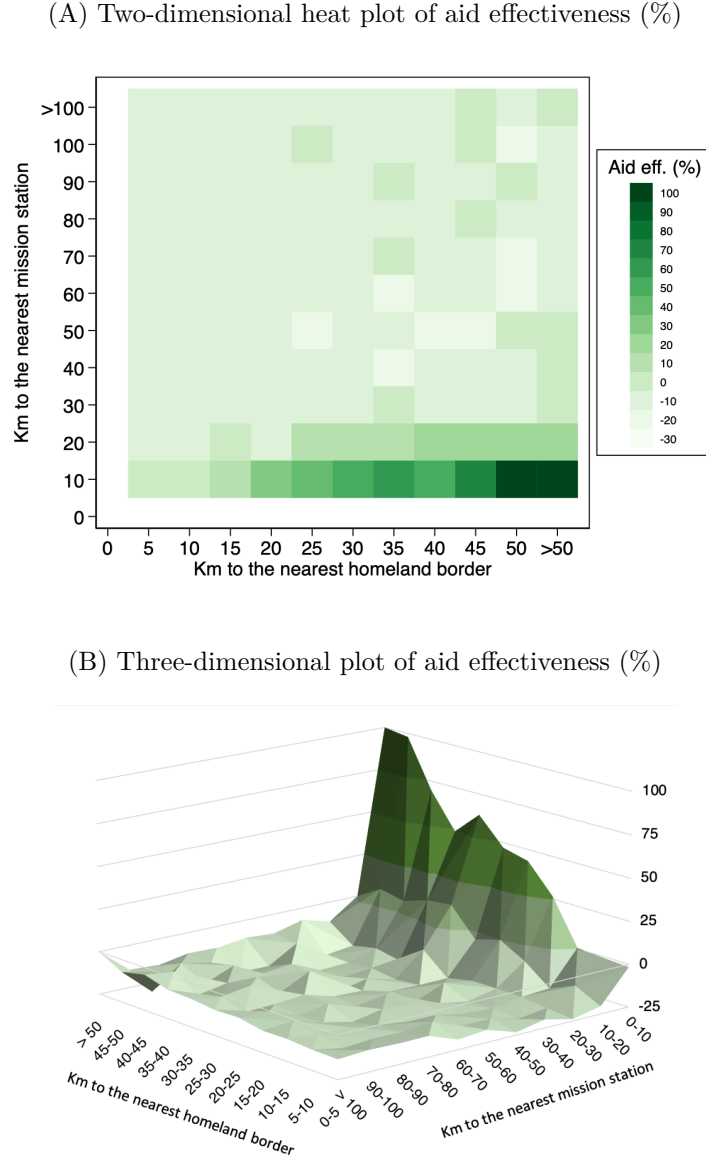
Panel A of Figure 3 shows that night light shines significantly brighter up to 80 km away from a mission station compared to a reference area of grid cells located further than 100 km away. Similarly, Panel B indicates that night light is significantly dimmer up to 40 km away from a homeland border compared to a reference area of grid cells located further than 100 km away. Tables D.3 and D.4 show that the identified discontinuities are robust to excluding remote grid cells from the reference area by restricting this to grid cells located between 100 and 200 km away from the nearest mission station or homeland border instead.

### 5.1.2 Spatial interaction results

Prompted by the numbers provided by the discontinuity analyses, we propose a conceptual framework consisting of four plausibly distinct zones on the African continent: a two-part treatment zone and a two-part control zone. The treatment zone consists of grid cells situated within 100 km of a mission station. These in turn are divided into grid cells located either inside the borderlands (i.e.  $<50$  km of a border) or outside of these (i.e.  $>50$  km of a border). Likewise, the control zone consists of grid cells situated more than 100 km from a mission station, which are further divided into grid cells located either within the borderlands or outside of these. Figure D.1 shows how the four zones are allocated across Africa.

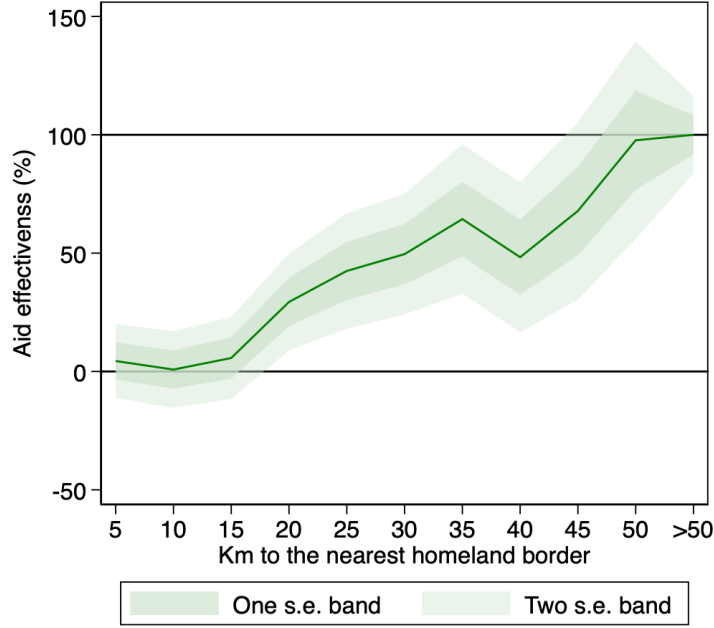
Figure 4 shows the results of estimating Equation 2. The model controls for the confounding factors detailed in the data section and illustrated in Appendix B.2. The distances between the first- and second-nearest mission stations and homeland borders, respectively, are accounted for to address any potential cumulative effects of clustering mission stations or homeland borders. Grid cells within 100 km of a mission station are grouped into 10-km bins, while grid cells within 50 km of a homeland border are grouped into 5-km bins. All variables are log-linearised except the binary ones. The model includes country and coloniser fixed effects, as well as robust standard errors. The regression results are reported in Table D.5. Figure D.2 shows the population and cell distributions of the interacted bins.

Figure 4: Aid effectiveness by distance to the nearest mission station and homeland border



*Notes:* Aid effectiveness is derived from the regression model described in the text and reported in Table D.5 (Appendix D). The tabulated coefficients represent percentage-point differences in night light relative to a control zone of grid cells located more than 100 km from a mission station and more than 50 km from a homeland border. The aid effectiveness displayed in the graphs report the estimated coefficients as a percentage of the maximum coefficient of Table D.5. The regression model – specified in Equation 2 – includes all controls listed in Appendix B.2, as well as country and coloniser fixed effects. Robust standard errors are used. All continuous variables are log-linearised; binary variables are expressed in levels.

Figure 5: Mission aid effectiveness near homeland borders



*Notes:* The reported aid effectiveness describes the estimated  $\beta_{ij}$  coefficients of each of the interacted distance bins as a percentage of the outright (maximum)  $\beta_{ij}$  value observed in Table D.5. The regression model – specified in Equation 2 – includes all controls listed in Appendix B.2, as well as country and coloniser fixed effects. Robust standard errors are used. All continuous variables are log-linearised; binary variables are expressed in levels.

Panel A of Figure 4 uses a heat map to show the mission aid effectiveness at the various interacted distances from the mission stations and homeland borders. The reported aid effectiveness describes the estimated  $\beta_{ij}$  coefficients of each of the interacted distance bins as a percentage of the outright (maximum)  $\beta_{ij}$  value observed in Table D.5. Panel B of Figure 4 expands the graphical representation into three dimensions, enhancing the visualisation of the spatial differences. Expectedly, the outright (100%) aid effectiveness is observed in the treatment zone situated *outside* the borderlands, i.e. more than 50 km from a homeland border, and less than 10 km from a mission station, i.e. at the bottom-right corner of Panel A and the northern corner of Panel B of Figure 4.

Figure 5 zooms in on the lowest row of Panel A and the north-eastern side of Panel B in Figure 4. The graph illustrates the borderland offset of mission aid effectiveness, which occurs when approaching a homeland border, while remaining within 10 km of a mission station compared to the outright aid effectiveness observed more than 50 km from a homeland border and within 10 km of a mission station. The graph conveys two main messages. First, the outright mission aid effectiveness is halved within 40 km of a homeland border. Measured in terms of people exposed, this concerns 70% of Africa’s current population. Second, the correlation coefficient between night light and mission activities within 15 km of a homeland border does not differ significantly from night light in the control zone outside the borderlands. Measured in terms of people exposed, this concerns 33% of Africa’s present population. These results are robust to using the untreated borderlands as a reference area instead (see Figure D.7 in Appendix D).

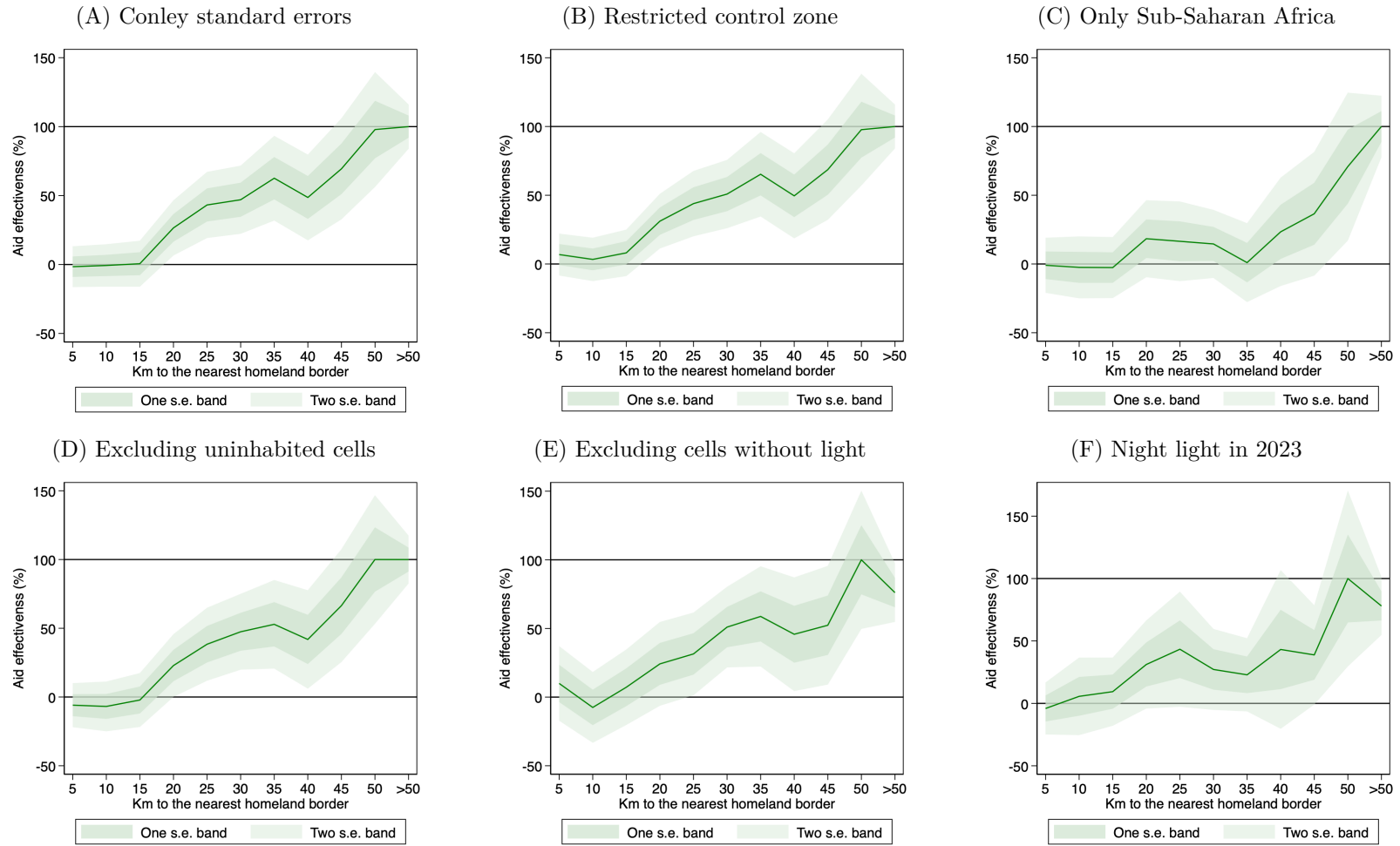
### 5.1.3 Sensitivity

This subsection performs a range of basic sensitivity checks on the baseline results. The subsequent sections explore a more advanced group of robustness checks.

A widespread concern in regional studies is the confounding role of spatial autocorrelation. We account for this by estimating the baseline model using Conley standard errors (Conley, 1999) with a linear decay up to 100 km away from the centroid of each grid cell. Panel A of Figure 6 alongside Table E.1 in Appendix E show that the baseline results are robust to accounting for spatial autocorrelation.

A further concern regarding the baseline results becomes apparent when examining the map displayed in Figure D.1, which shows the four conceptual treatment and control zones used to motivate our analytical setup. The zones map highlights that large parts of our control zones outside the borderlands (marked in yellow) are located in the Sahara Desert. The Sahara Desert is mainly uninhabited today, which the baseline analysis takes into account. Additionally, the Sahara Desert is far removed from the colonial missionary settlements and, in many cases, also from the historical homeland borders. Furthermore, according to Panel A of Figure 2, the Sahara Desert emit no or very low levels of night light.

Figure 6: Basic sensitivity checks



*Notes:* Coefficients and confidence intervals are derived from the regression models described in the text and reported in Appendix E. They represent percentage-point differences in night light relative to a control zone of grid cells located more than 100 km from a mission station and more than 50 km from a homeland border (Panel B: 100-200 km from missions and 50-100 km from borders). The coefficients are scaled as a share of the maximum estimated aid effect (i.e., the highest night light coefficient in the respective tables). The regression model – specified in Equation 2 – includes all controls listed in Appendix B.2, as well as country and coloniser fixed effects. Robust standard errors are used. All continuous variables are log-linearised; binary variables are expressed in levels.

There are several ways to ensure that the baseline results are not driven by including remote, uninhabited, or underdeveloped areas, such as the Sahara Desert. Panel B of Figure 6 shows the results of restricting the control zone to grid cells situated between 100 and 200 km from a mission station and 50 and 100 km from a homeland border. Figure E.1 shows the revised zones, illustrating that this restriction removes most of the Sahara Desert from the control zone. Table E.2 reports the results of estimating the baseline model using the restricted control zone, which are qualitatively identical to those of the baseline analysis.

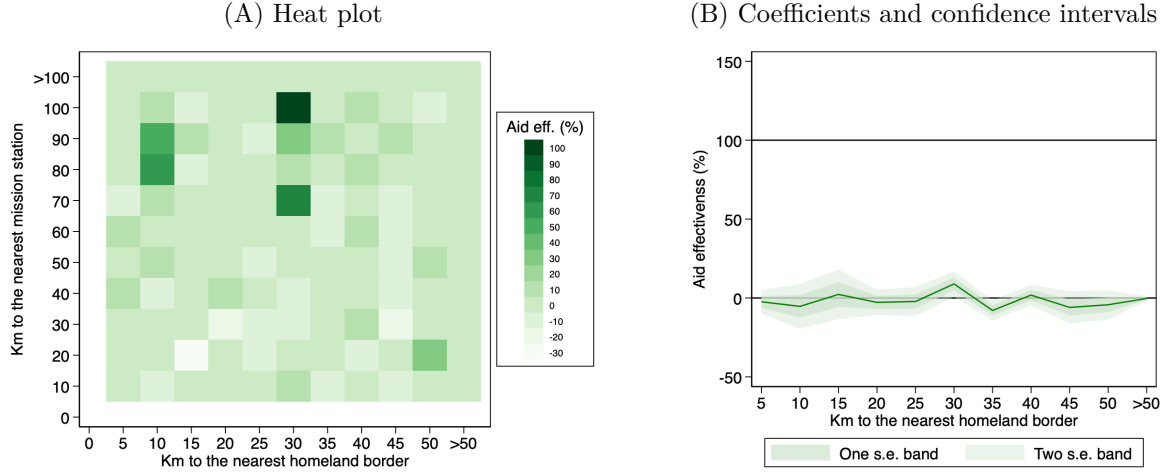
Panels C, D, and E of Figure 6 address the same concern using a set of sample restrictions instead. Panel C limits the sampled grid cells to those located in Africa south of the Sahara (Table E.3). Panel D removes the grid cells from the sample that are uninhabited today (Table E.4). Finally, Panel E restricts the sampled grid cells to those containing non-zero night light (Table E.5). As mentioned above, the results of these alternative sample specifications are robust in comparison to those obtained in the baseline analysis.

Lastly, as mentioned earlier, our baseline analysis uses the satellite night light commonly deployed in the related literature and measured in 2010. Panel F of Figure 6 shows that we obtain qualitatively identical results if we replace night light in 2010 with the most recently updated version of night light data from 2023 (Table E.6).

## 5.2 Further empirical validation

This section further validates our baseline results using three complementary strategies following standard practices in programme evaluation analysis (e.g. [Abadie and Cattaneo, 2018](#)). First, we deploy a placebo test that replaces the distances to the mission stations and homeland borders with random distances. If the coefficients provided by our baseline analysis were driven by random spatial variation, then similar results could be obtained using alternative distances. Second, we apply propensity score matching by subsampling grid cells that differ with respect to their proximity to historical missions or borders but are similar in their observable characteristics. This exercise helps mitigate concerns that underlying regional differences confound our estimates. Finally, we address concerns about the potential endogeneity of the missionaries' settlement choice using an instrumental variable approach. The latter step supports a causal interpretation of the findings.

Figure 7: Placebo test: randomised distances to mission stations and homeland borders



*Notes:* Coefficients and confidence intervals are derived from the regression model described in the text and reported in Table F.1 (Appendix F). They represent percentage-point differences in night light relative to a control zone of grid cells located more than 100 km from a mission station and more than 50 km from a homeland border. The coefficients are scaled as a share of the maximum estimated aid effect (i.e., the highest night light coefficient in the respective tables). The regression model – specified in Equation 2 – includes all controls listed in Appendix B.2, as well as country and coloniser fixed effects. Robust standard errors are used. All continuous variables are log-linearised; binary variables are expressed in levels.

### 5.2.1 Placebo test

Motivated by concerns about the spatial and temporal validity of the Murdock map, as well as potential issues with the precise position of the sampled mission station locations, we implement a simple placebo treatment test. Specifically, to assess whether the observed relationships between night light and proximity to missions or borders are driven by random spatial patterns or artefacts of geographic assignment, we construct two placebo distance variables by replacing the actual distances to missions and borders with randomised counterparts. The absence of a statistically significant link between night light and proximity to missions and borders displayed in Figure 7 suggests that the baseline results reflect meaningful spatial relationships rather than random spatial correlation or mismeasurement.

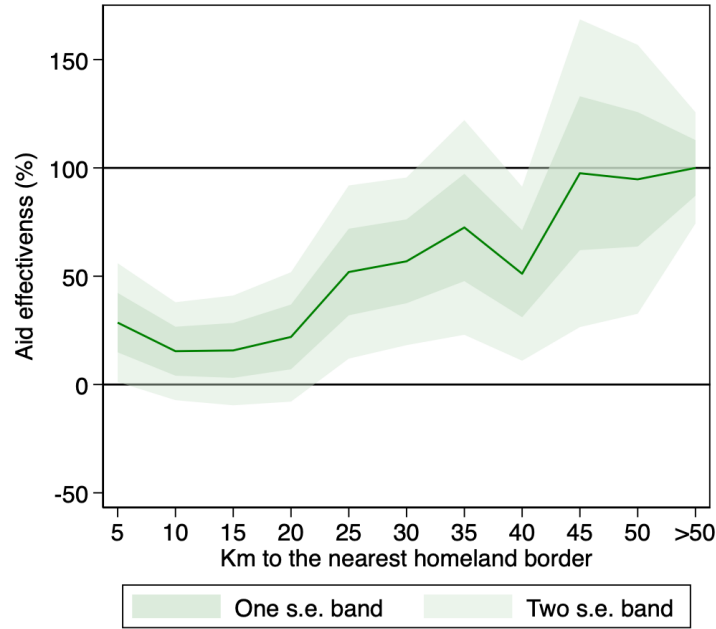
### 5.2.2 Propensity score matching

To ensure that our results are not driven by systematic differences in geographic or historical characteristics across space, we apply propensity score matching to mitigate any such biases by approximating the conditions of a randomised comparison (e.g. [Rosenbaum and Rubin, 1983](#); [Abadie and Cattaneo, 2018](#)). In particular, we use a logistic model to estimate each grid cell’s probability (or propensity score) of being treated, i.e., having a mission station located within 100 km. The model includes those of our geographic and historical characteristics that were likely determinants of mission settlement. In addition to country and coloniser information, these include latitude, terrain ruggedness, elevation, land suitability for agriculture, rainfall, temperature, malaria and tsetse ecologies, and the distances to rivers, coasts, mines, explorer routes, precolonial cities, Muslim seats, colonial railways, and national borders in 1913. Table G.1 in Appendix G shows that the geographic and historical covariates, as well as coloniser and country details, all significantly determine the probability of treatment.

Once every cell has a propensity score, we pair each cell in the treatment zone with a cell from the control zone of a similar score using a *caliper* of 0.01 and restricting to the region of *common support*. Table G.2 documents that the mean standardised bias of each covariate falls by 70–90% after matching, yielding a balanced comparison group of untreated cells with a likelihood of predicted mission settlement similar to the treated cells. Table G.3 informs that the matching procedure removes two-thirds of the full sample, resulting in a reduction of the mean bias from 28% to 4%. Table G.4 shows that the predictors of settlement account for about 50% of the treatment difference before the matching, but that these predictors become poor indicators of settlement after matching, accounting for only 3% of the difference. This means that our matching procedure considerably improves the balance of the regression sample employed.

Finally, we use the balanced sample to estimate the baseline regression of Equation 2 on page 12. Figure 8 shows that our baseline results are robust to equalising the observable predetermined characteristics statistically decisive to missionary settlement. This inspires confidence that the observed spatial patterns are not due to location-specific attributes.

Figure 8: Subsample balanced using propensity score matching



*Notes:* Coefficients and confidence intervals are derived from a regression model using a balanced subsample of 78,063 grid cells obtained from propensity score matching as described in the text and Appendix G and reported in Table G.5. The coefficients represent percentage-point differences in night light relative to a control zone of grid cells located more than 100 km from a mission station and more than 50 km from a homeland border. The coefficients are scaled as a share of the maximum estimated aid effect (i.e., the highest night light coefficient in the respective tables). The regression model – specified in Equation 2 – includes all controls listed in Appendix B.2, as well as country and coloniser fixed effects. Robust standard errors are used. All continuous variables are log-linearised; binary variables are expressed in levels.

### 5.2.3 Instrumental variable analysis

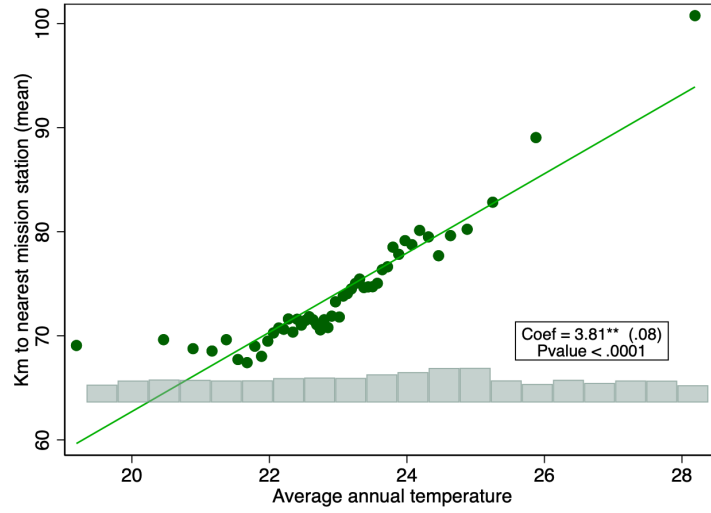
A key challenge in interpreting the positive link between night light and proximity to colonial mission stations as causal is that the missionaries might have systematically settled in areas of superior prospects for economic development, such as regions well-suited to agriculture. The baseline findings could therefore result from suitable initial conditions for economic growth rather than missionary activities. Our baseline analysis accounts for an elaborate set of observable factors associated with economic progress, including the land suitability for agriculture. However, omitted variables might still dispute a causal interpretation.

To address this issue, we implement an instrumental variable analysis. We follow [Easterly and Levine \(2016\)](#)’s assertion that European colonial settlers sought the same temperate climate as they were used to in Europe. The warm and humid conditions prevalent in many parts of tropical Africa facilitated the spread of tropical diseases, to many of which Europeans lacked immunity. European settlers, therefore, tended to favour regions where cooler temperatures resembled those in Europe, thus reducing the prevalence of tropical diseases. Figure 9 corroborates [Easterly and Levine \(2016\)](#)’s contention, showing that mission stations were systematically less frequently located in warmer regions – also after accounting for other factors relevant to colonial European settlement.

Our instrumental variable approach uses exogenous variation in temperature to predict the proximity to a colonial mission station. To this end, we restrict the sampled grid cells to those located within 200 km of a mission station, grouping the cells into 20 categories, each spanning 10 km of distance. Equally, we group the observed temperatures within the restricted sample into 20 categories based on quantiles. The first stage of the 2SLS analysis then uses the temperature categories to predict the categories for the distances to mission stations, controlling for the same variables used in the baseline model, except for temperature. Figure H.1 shows the correlation between the instrumental variable (the temperature categories) and the predicted (conditional) distance categories for mission stations.

Table H.1 reports the results of running the 2SLS. The first stage shows that the distance to a mission station is positively and strongly statistically correlated with temperature (Panel D of Table H.1). This confirms that the missionaries systematically settled in regions of cooler temperatures. The second stage (Panel A) shows that the predicted distance to mission station categories is strongly negatively correlated with night light, meaning that grid cells located further away from mission stations emit less light. Because we cannot use the interaction with the grouped distance to borders in the first stage of the 2SLS, we control for the distance to the nearest homeland borders in the first stage instead. The results are robust to excluding these distances.

Figure 9: Temperature and missionary settlement

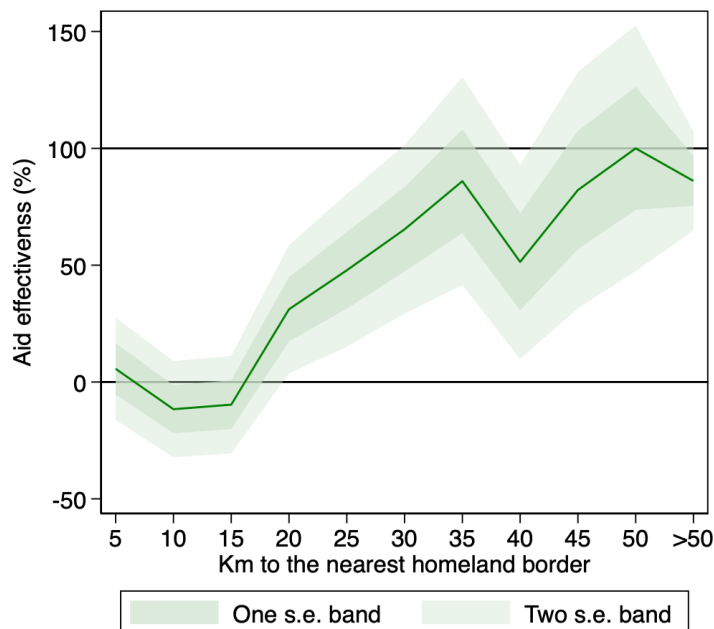


*Notes:* The underlying *binscatter* regression model controls for a set of observable factors plausibly influential to missionary settlement including the distances to coasts, rivers, railways, historical explorer routes, mines, precolonial cities, Muslim seats, and precolonial homeland borders, as well as latitude, ruggedness, elevation, land suitability for agriculture, rainfall, malaria, tsetse flies, and whether or not the locality belonged to Sub-Saharan Africa or was on an island. The regression sample is restricted to grid cells located less than 200 km from a mission station.

While the exclusion restriction cannot be tested directly, our reduced-form results suggest that temperature affected contemporary night light only through missionary activities. That is, whereas temperature is statistically negatively correlated with night light overall (see Panel B of Table H.1), the reduced-form regression results for grid cells located in the control zone (i.e. more than 100 km from a mission station) display zero statistical correlation between temperature and night light (see Panel C of Table H.1).

Figure 10 visualises the results of estimating the baseline model using the 2nd stage results of the 2SLS, where the distances to mission station categories (predicted by the temperature categories) are interacted with the distances to the homeland border categories. The graph indicates that the instrumental variable approach produces results that are qualitatively identical to those of the baseline analysis, building confidence that our baseline results are not plagued by endogeneity.

Figure 10: Predicting the distances to missions using exogenous variation in temperature



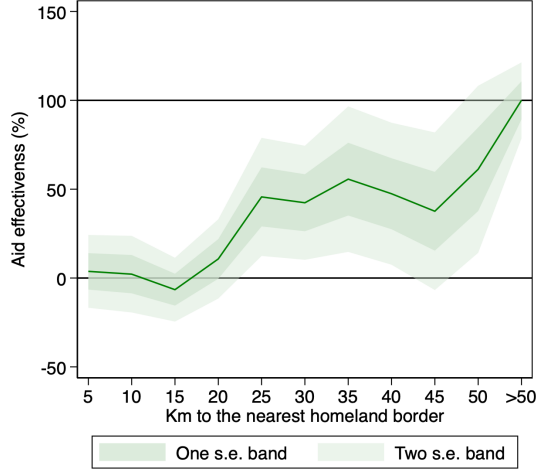
*Notes:* Coefficients and confidence intervals are derived from the IV regression model described in the text and Appendix H and reported in Table H.2. They represent percentage-point differences in night light relative to a control zone of grid cells located more than 100 km from a mission station and more than 50 km from a homeland border. The coefficients are scaled as a share of the maximum estimated aid effect (i.e., the highest night light coefficient in the respective tables). The regression model – specified in Equation 2 – includes all controls listed in Appendix B.2 except temperature, which is used to instrument the distances to a mission station. The model also has country and coloniser fixed effects. Robust standard errors are used. All continuous variables are log-linearised; binary variables are expressed in levels.

### 5.3 Accounting for World Bank aid

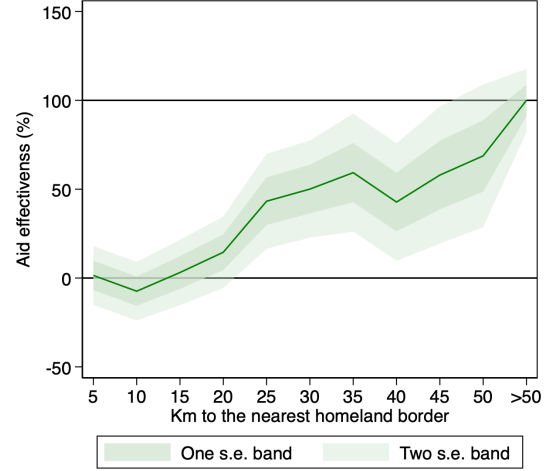
Perhaps the most serious competition to the breadth of development-related missionary activities in Africa comes from the World Bank’s development aid programmes. Figure I.1 shows the locations of the World Bank’s aid projects funded between 1995 and 2014 (that is, when these data are available). Our baseline analysis considered any confounding roles played by these programmes by controlling for the distance to the nearest World Bank aid project location ([AidData, 2017](#)).

Figure 11: Accounting for World-Bank-funded aid projects

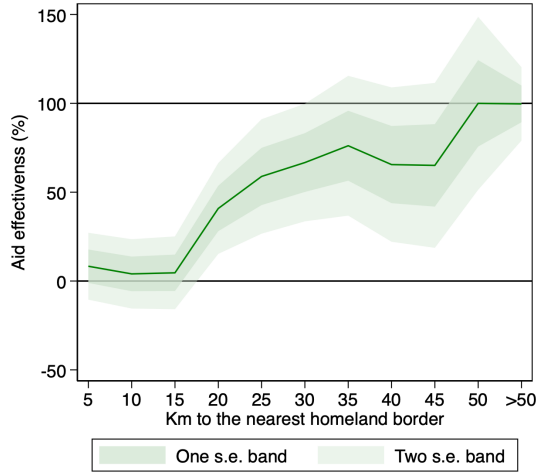
(A) Excluding grid cells located less than 50 km from a World Bank project



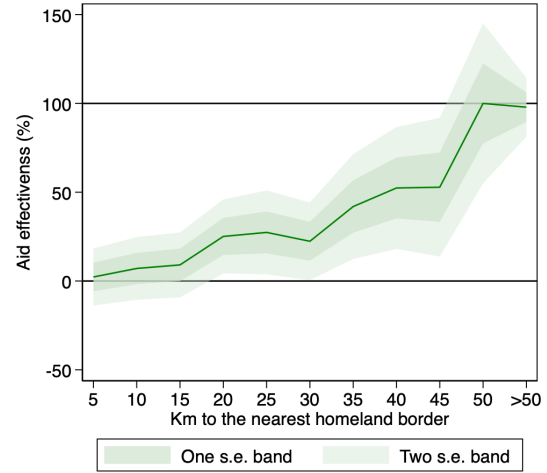
(B) Excluding cells near mission stations that overlap with World Bank projects



(C) Including World Bank project grid cell ID fixed effects



(D) Interacting World Bank disbursement with (inverse) distances to these



*Notes:* Coefficients and confidence intervals are derived from the regression model described in the text and reported in Tables I.1-I.4 (Appendix I). They represent percentage-point differences in night light relative to a control zone of grid cells located more than 100 km from a mission station and more than 50 km from a homeland border. The coefficients are scaled as a share of the maximum estimated aid effect (i.e., the highest night light coefficient in the respective tables). The regression model – specified in Equation 2 – includes all controls listed in Appendix B.2, as well as country and coloniser fixed effects. Robust standard errors are used. All continuous variables are log-linearised; binary variables are expressed in levels.

Meanwhile, [Alpino and Hammersmark \(2021\)](#) has documented a positive and sizeable correlation between the location of colonial mission stations and the allocation of later World Bank aid. This means that our baseline results could have been amplified by, or even resulted entirely from, World Bank aid rather than missionary activities. Worse still, our baseline findings could reflect the idea that World Bank funding was channelled to places where missionary activities had been most successfully associated with improved development (i.e., outside of the historical borderlands), causing the mission aid effectiveness observed inside the borderlands in the baseline analysis to appear ineffective.

Figure 11 address these concerns, showing the results of adjusting for World Bank aid more profoundly than simply controlling for the distance to the nearest aid-development programme. The exhibited graphs estimate the baseline model using four main alterations. Panel A removes the grid cells located less than 50 km from a cell with a World Bank project. Panel B removes grid cells with the shortest distances to those mission stations that share a grid cell with a World Bank project. Panel C controls for World Bank project ID fixed effects, tagging the cells with the shortest distance to each aid project with the same ID. Finally, Panel D controls for the size of World Bank aid disbursements, interacted with the inverse distance to the nearest World Bank project. The graphs show that the alternative results are qualitatively identical to those of the baseline specification (see Figure 5).

## 5.4 Heterogeneity analysis

Previous studies exploring the impact of missionaries on night light in Africa have treated mission stations as uniform in terms of their resources. Our baseline analysis above followed the same approach. Yet, some mission stations undoubtedly had access to more financial resources than others, affording them more school teachers and better school facilities, which in turn could have helped shape the magnitude of each mission station’s long-run influence on development. More resourceful mission stations could also have taken on more prominent societal roles associated with development, such as employing doctors and operating hospitals, or importing printing presses, thus stimulating the diffusion of knowledge. To assess the relationship between night light and missionary activities more accurately, variation in missionary resources would need attention.

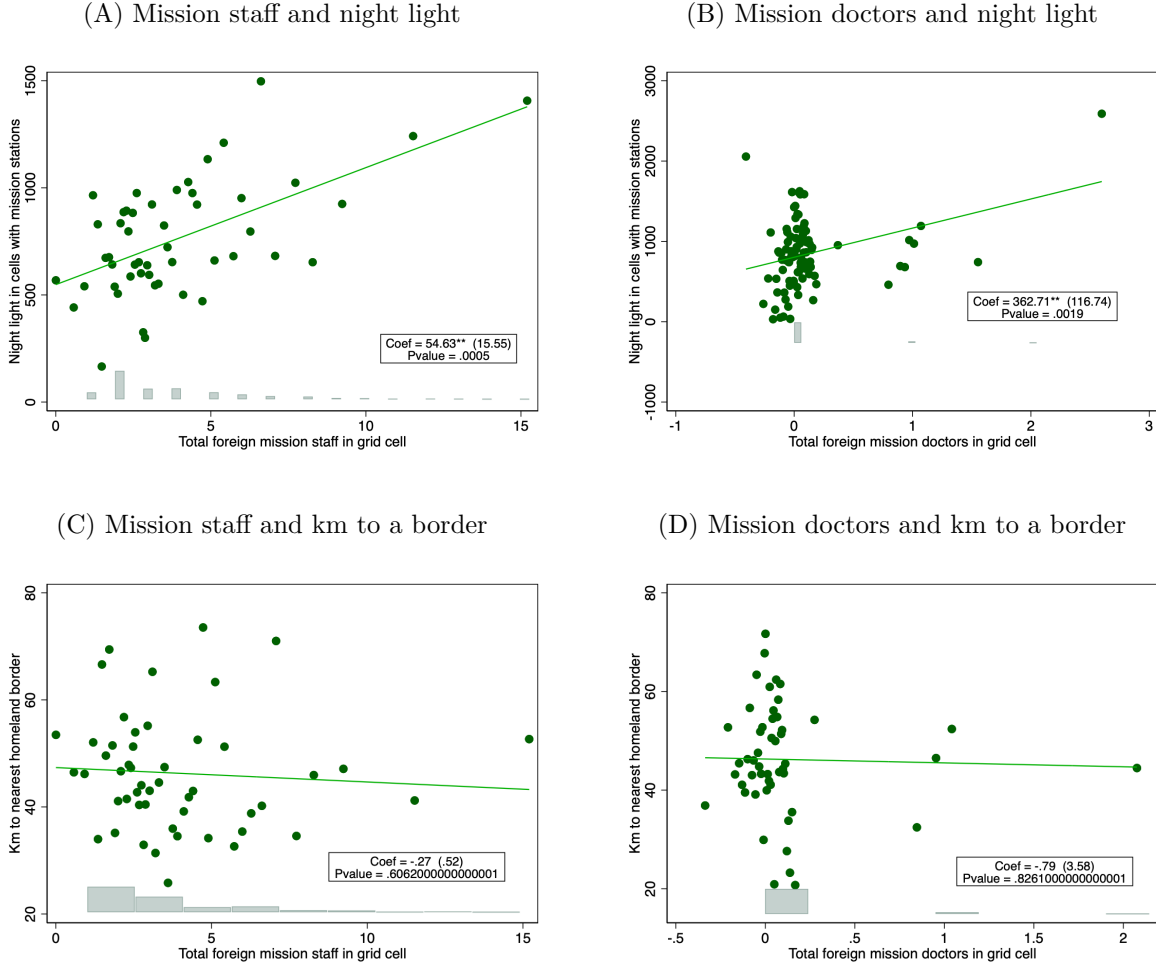
A comparable issue arises with homeland borders. Our baseline analysis treated all areas in the historical borderlands as identical in terms of their receptiveness to missionary activities. It is not improbable, however, that particular borderlands were more susceptible to the development initiatives offered by the missionaries than others. The baseline approach controls for such differences by accounting for grid-cell level variation in observable geographic and historical characteristics. However, unobserved factors might still have affected how responsive each borderland was to the missionaries. Similar to variation in missionary resources, any differences in borderland responsiveness to missionary influences would need attention.

The following subsections address the possibility that individual mission stations or homeland borders differed in ways that influenced the later economic development of their surroundings. We first test this using details on historical missionary staff size, exploring whether larger missionary staffs were linked to higher night light intensity today and were located systematically farther from homeland borders. We then turn to the full sample again while including mission and border ID fixed effects, this way allowing our regression model to absorb grid-cell-specific characteristics with the aim of obtaining coefficients unbiased by unobserved differences across individual missions or borders.

#### 5.4.1 Differences in missionary resources

A potential threat to the baseline conclusions is that the missionaries positioned inside the borderlands were systematically underfunded and thus had a weaker association with later economic development compared to missionaries situated outside the borderlands. Thanks to the details mentioned in the World Missionary Atlas ([Beach et al., 1925](#)), we can assess the relevance of this concern. The World Missionary Atlas specifies the number of foreign (non-African) missionary members of 1,126 Protestant mission stations enumerated in 1924 (see [Becker and Meier zu Selhausen, 2023](#)). Out of these, 175 shared a grid cell with one or more other mission stations, in which case we grouped the mission staffs. These details enable us to explore the correlation between night light and missionary resources, the latter captured by the number of foreign mission staff or foreign medical doctors recorded in each grid cell. The summary statistics are provided in Appendix A.

Figure 12: Satellite night light and foreign missionary staff in 1924



*Notes:* The *binscatters* are made upon a sample of 1,159 grid cells containing information about the number of missionaries and missionary doctors while excluding 33 grid cells with extraordinary many ( $>20$ ) missionaries (the results are robust to their inclusion) in Panels A and C. The underlying regression model includes all controls listed in Appendix B.2, as well as country and coloniser fixed effects. Robust standard errors are used. All continuous variables are log-linearised; binary variables are expressed in levels.

Figure 12 contains four binned scatter plots. Panel A shows the (conditional) relationship between night light and the total missionary staff, while Panel B shows the (conditional) relationship between night light and the total number of missionary doctors. As expected, Panels A and B show that grid cells with more colonial missionary staff or doctors are associated with higher levels of night light today compared to grid cells with fewer missionaries. Meanwhile, Panels C and D confirm that grid cells with fewer missionaries or fewer mission-

ary doctors were not systematically located closer to the homeland borders than grid cells with more missionaries. There are thus no pressing reasons to believe that the baseline conclusions above emerged from mission stations near the historical borders being underfunded.

### 5.4.2 Mission and border fixed effects

Returning to the full sample of mission stations used in the baseline analysis, we now use fixed effects models to account for mission station and borderland heterogeneities. To this end, each of our 257,224 grid cells was linked to the closest mission station and historical border, respectively, using unique identifiers. The heterogeneity analyses carried out below demonstrate that mission station and historical border ID fixed effects – whether entered into the regression model individually, together, or interacted – yield the same conclusions as the baseline analysis above.

#### 5.4.2.1 Mission station heterogeneity

A way to account for mission station resources in the absence of staff statistics is to estimate the baseline model while adding mission station fixed effects. To this end, we provided a unique identification number to each of the sampled mission stations while tagging the cells with the shortest distance to each mission station with the same identifier. This enables us to account for the individual characteristics of each mission station’s plausible influence on its surroundings as fixed effects in our regression model.

Figure J.1 reports the satellite night light in a range of 10 km away from each mission station, ranked by light intensity. Mission stations unassociated with night light are marked in grey. The remaining stations are classified by quantiles depending on their light intensity, with yellow representing the brightest mission station locations and dark green the least bright ones. Figure 13 zooms in on two areas of Africa – Cairo in Egypt on the one hand and Accra in Ghana, Lomé in Togo, and Lagos in Nigeria on the other. It is notable how mission stations sometimes – though far from always – coincide with the location of a major city (light grey areas). In the cases where they coincide, such as Cairo in Panel A, it is far from always the case that a mission station location is associated with night light (see the grey

markings). In contrast, Panel B shows how certain inland mission stations are associated with considerable night light (see the yellow markings), even though these stations were located far from a major city.

The results of estimating the baseline model while accounting for mission station ID fixed effects are reported in Appendix J. Comparable to the baseline results of Figure 5 above, Panel A of Figure 14 displays the predicted results of approaching a homeland border for grid cells located up to 10 km away from a mission station – this time accounting for mission station fixed effects. The baseline conclusions still hold: starting from the full effect, some 50 km away from a homeland border, the additional night light associated with having a mission station located less than 10 km away drops to zero.

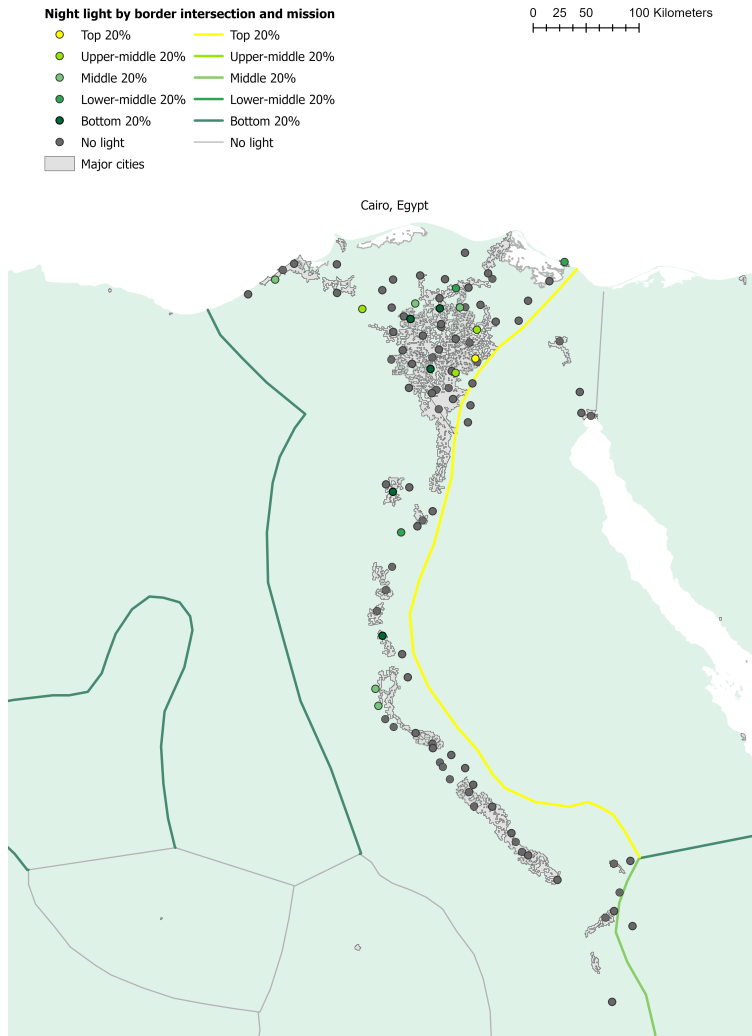
#### **5.4.2.2 Homeland border heterogeneity**

Turning to the homeland borders, we outlined 2,383 polylines from the original Murdoch map, including 842 polygons capturing all (inland) boundaries. Based on these, we established which border neighbourhoods each of our 257,224 grid cells falls within. Each border polyline section is uniquely identified. As with the mission stations, we calculated the shortest distance from the centroid of each grid cell to the nearest border section. This calculation retrieved the length and ID of the polyline section, ensuring that each grid cell is consistently associated with the nearest border segment. The identification process ultimately enables us to incorporate the individual characteristics of each borderline section and its surroundings into the model, which are accounted for as fixed effects in our regression analysis.

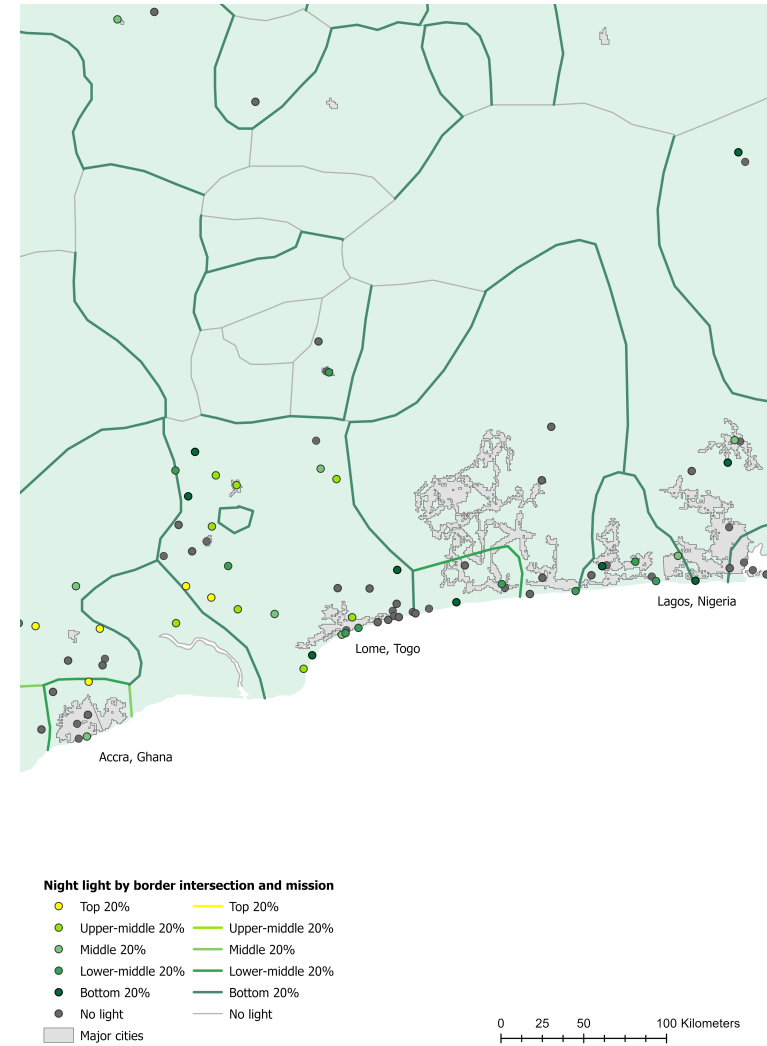
Figure J.2 displays the satellite night light in a range of up to 10 km away from each border segment. The border segments unassociated with night light are marked in grey. The remaining borders are ranked by quantiles depending on their light intensity, with yellow representing the brightest borders and dark green the least bright ones. The quantiles are identical and therefore comparable to those displayed in Figure J.1.

Figure 13: Zoom-in: satellite night light near mission stations and homeland borders

(A) Near Cairo

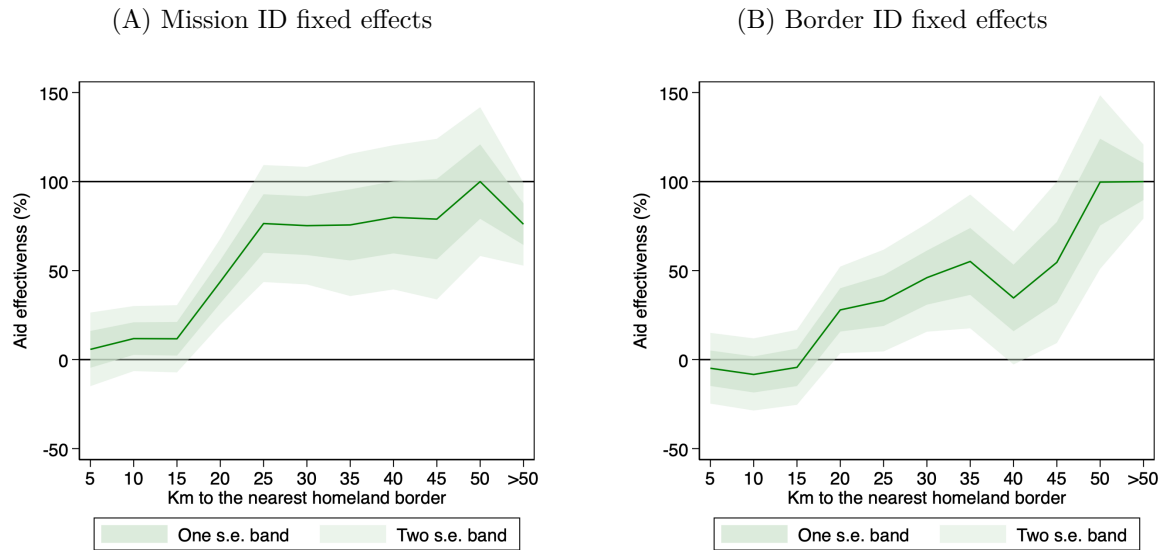


(B) Near Accra, Lomé, and Lagos



*Notes:* The map shows the satellite night light near the colonial mission stations and historical homeland borders in Cairo, Egypt (Panel A) and Accra, Ghana, Lomé, Togo, and Lagos, Nigeria (Panel B). Mission stations and homeland borders with positive night light are ranked using quantiles, while stations or borders without night light are illustrated in grey. The locations of major urban centres are indicated in grey. Both panels use the same light ranking scale.

Figure 14: Mission aid effectiveness near homeland borders: mission or border fixed effects



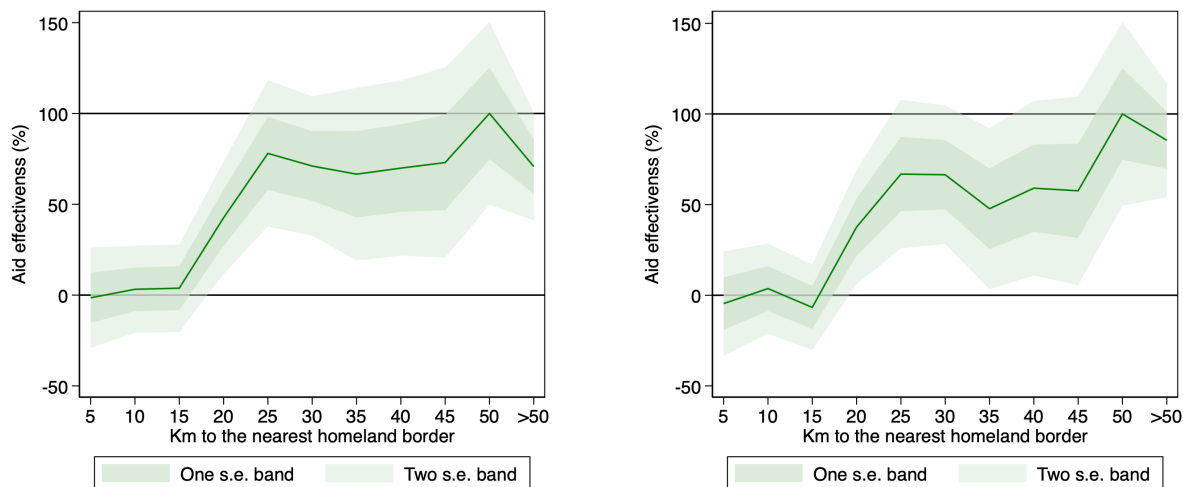
*Notes:* The coefficients are based on a regression model described in the text with the results reported in Tables J.1 and J.2 in Appendix J. The coefficients of Tables J.1 and J.2 convey the percentage-point differences in night light compared to a control zone of grid cells located more than 100 km from a mission station and more than 50 km from a homeland border. These are expressed as a share of the maximum aid effectiveness, i.e. the maximum value of the night light coefficient in Tables J.1 and J.2. The regression model, displayed in Equation 2, controls for latitude, ruggedness, elevation, rainfall, temperature, land suitability for agriculture, malaria, tsetse flies, population density, uninhabited grid cells, major cities, islands, Sub-Saharan Africa, as well as the geodesic distances to coasts, rivers, railways, mines, national borders, historical explorer routes, precolonial cities, Muslim seats, Protestant printing presses, and postcolonial World Bank aid projects. Gaps between the first- and second-nearest mission stations and homeland borders are also accounted for. The model includes country and coloniser fixed effects, as well as robust standard errors. The model also includes mission station (Panel A) or homeland border (Panel B) ID fixed effects. All variables are log-linearised except binaries.

As above, Figure 13 zooms in on the ranked borders in combination with the ranked mission stations and the locations near major cities in Egypt, Ghana, Togo, and Lagos. The maps reveal how mission stations are sometimes found on top of the historical borders. They further disclose that the mission stations associated with the most night light today (yellow markings) are located both near and far from the homeland borders, as are mission stations entirely unassociated with night light (grey markings). Additionally, the maps defy the common perception that homeland borders are exclusively located in remote areas, with some of the borders even intersecting major cities of today, such as Lagos.

Figure 15: Mission aid effectiveness near homeland borders: mission and border fixed effects

(A) Separated mission and border ID fixed effects

(B) Interacted mission and border ID fixed effects



*Notes:* The coefficients are based on a regression model described in the text with the results reported in Tables J.3 and J.4 in Appendix J. The coefficients of Tables J.3 and J.4 convey the percentage-point differences in night light compared to a control zone of grid cells located more than 100 km from a mission station and more than 50 km from a homeland border. These are expressed as a share of the maximum aid effectiveness, i.e. the maximum value of the night light coefficient in Tables J.3 and J.4. The regression model, displayed in Equation 2, controls for latitude, ruggedness, elevation, rainfall, temperature, land suitability for agriculture, malaria, tsetse flies, population density, uninhabited grid cells, major cities, islands, Sub-Saharan Africa, as well as the geodesic distances to coasts, rivers, railways, mines, national borders, historical explorer routes, precolonial cities, Muslim seats, Protestant printing presses, and postcolonial World Bank aid projects. Gaps between the first- and second-nearest mission stations and homeland borders are also accounted for. The model includes country and coloniser fixed effects, as well as robust standard errors. The model also includes mission and border ID fixed effects separately (Panel A) and jointly (Panel B). All variables are log-linearised except binaries.

Comparable to the results reported in Figure 5 on page 17, Panel B of Figure 14 displays the predicted results of approaching a homeland border for grid cells located up to 10 km away from a mission station – this time accounting for homeland border fixed effects. Again, the conclusions of the baseline analysis remain.

#### 5.4.2.3 Combined heterogeneities

Lastly, Figure 15 shows the results of combining the mission and homeland border ID fixed effects. Panel A displays the findings when the fixed effects enter the regression model in Equation 2 individually. Panel B reports the results when the mission and border fixed effects are interacted instead. The conclusions from the baseline analysis are unchanged.

## 6 Conclusion

Our study informs debates about development strategies, exploiting the aid initiatives associated with the expansion of Christianity in Africa to evaluate the impact of mission aid in the notoriously underdeveloped areas of the historical borderlands.

Employing a novel approach to measuring aid effectiveness, we establish that the outright effectiveness of the mission aid initiatives – captured by the maximum correlation coefficient between night light and closeness to a colonial mission station relative to a plausible control area – diminished considerably near the historical homeland borders. Measured in terms of the number of people inhabiting these borderlands, our study indicates that two-thirds of Africa’s current population exhibit reduced aid responsiveness, with half of them, in turn, showing no response at all.

Our sensitivity and heterogeneity analyses indicate that the baseline findings are robust to an array of robustness checks. These include placebo, propensity score matching, and instrumental variable strategies, as well as model specifications that account for differences across individual mission stations and homeland borders. In addition, we provided a plausibility check indicating that differences in missionary resources do not drive our results, and that our findings are not confounded by considering later development-aid programmes sponsored by the World Bank.

Our analysis suggests implications for contemporary development policies. We demonstrate that location impacts aid effectiveness, emphasising the limitations of uniform development programmes. That is, while mission settlements are generally associated with long-run development, a one-size-fits-all policy is unlikely to improve development in all needing regions of Africa.

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# A Descriptive statistics

Table A.1: Descriptive statistics

| Variable                                               | N       | Mean     | Std. dev. | Min     | Max       |
|--------------------------------------------------------|---------|----------|-----------|---------|-----------|
| Satellite night light intensity (normalised)           | 257,224 | 0.00     | 0.01      | 0.00    | 1.00      |
| Distance to the nearest mission station (km)           | 257,224 | 254.67   | 285.27    | 0.06    | 1,463.36  |
| Distance to the nearest homeland border (km)           | 257,224 | 51.55    | 57.80     | 0.00    | 1,544.09  |
| Distance to the nearest national border (km)           | 257,224 | 186.03   | 199.46    | 0.00    | 2,676.73  |
| Distance: 1st-2nd nearest mission station (km)         | 257,224 | 42.94    | 67.39     | 0.00    | 722.97    |
| Distance: 1st-2nd nearest homeland border (km)         | 257,224 | 44.43    | 48.88     | 0.00    | 376.10    |
| Distance: 1st-2nd nearest national border (km)         | 257,224 | 133.97   | 142.66    | 0.00    | 1,071.16  |
| Distance to the nearest coast (km)                     | 257,224 | 632.88   | 446.41    | 0.00    | 1,732.42  |
| Distance to the nearest river (km)                     | 257,224 | 278.31   | 323.71    | 0.00    | 1,581.25  |
| Distance to the nearest railway (km)                   | 257,224 | 531.27   | 370.08    | 0.00    | 2,749.68  |
| Distance to the nearest explorer route (km)            | 257,224 | 196.97   | 213.02    | 0.00    | 2,579.78  |
| Distance to the nearest mine (km)                      | 257,224 | 240.44   | 180.75    | 0.25    | 1,626.22  |
| Distance to the nearest pre-colonial city (km)         | 257,224 | 692.67   | 380.37    | 1.00    | 2,025.73  |
| Distance to the nearest Muslim seat (km)               | 257,224 | 1,011.25 | 815.22    | 2.17    | 3,719.35  |
| Distance to the nearest Protestant printing press (km) | 257,224 | 959.84   | 688.39    | 1.00    | 3192.00   |
| Distance to the nearest World Bank project (km)        | 257,224 | 251.29   | 217.01    | 0.28    | 1,160.83  |
| Latitude (absolute)                                    | 257,224 | 16.19    | 9.22      | 0.01    | 37.53     |
| Ruggedness (index)                                     | 257,224 | 623.52   | 445.76    | -130.88 | 4,399.10  |
| Elevation (meters above sea)                           | 257,224 | 46.21    | 72.47     | 0.00    | 1,888.78  |
| Land suitability (index)                               | 257,224 | 0.19     | 0.24      | 0.00    | 1.00      |
| Rainfall (mm)                                          | 257,224 | 648.69   | 627.33    | -0.06   | 4,479.87  |
| Temperature (Celsius)                                  | 257,224 | 23.89    | 3.49      | 7.13    | 30.65     |
| Malaria ecology (index)                                | 257,224 | 8.42     | 9.69      | 0.00    | 38.08     |
| Tsetse fly (index)                                     | 257,224 | 1.55     | 1.60      | 0.00    | 5.00      |
| Population density (1,000/sqkm)                        | 257,224 | 37.35    | 385.34    | 0.00    | 81,888.88 |
| Uninhabited cells (binary)                             | 257,224 | 0.22     | 0.42      | 0.00    | 1.00      |
| Major city (binary)                                    | 257,224 | 121.24   | 103.55    | 0.00    | 657.71    |
| Sub-Sahara (binary)                                    | 257,224 | 0.73     | 0.44      | 0.00    | 1.00      |
| Island (binary)                                        | 257,224 | 0.02     | 0.15      | 0.00    | 1.00      |
| Coloniser (binary): Independent                        | 257,224 | 0.04     | 0.20      | 0.00    | 1.00      |
| Coloniser (binary): Britain                            | 257,224 | 0.32     | 0.47      | 0.00    | 1.00      |
| Coloniser (binary): France                             | 257,224 | 0.35     | 0.48      | 0.00    | 1.00      |
| Coloniser (binary): Portugal                           | 257,224 | 0.07     | 0.25      | 0.00    | 1.00      |
| Coloniser (binary): Italy                              | 257,224 | 0.05     | 0.22      | 0.00    | 1.00      |
| Coloniser (binary): Belgium                            | 257,224 | 0.07     | 0.26      | 0.00    | 1.00      |
| Coloniser (binary): Spain                              | 257,224 | 0.01     | 0.11      | 0.00    | 1.00      |
| Coloniser (binary): Germany                            | 257,224 | 0.08     | 0.28      | 0.00    | 1.00      |
| Beach and Fahs mission station subsample:              |         |          |           |         |           |
| Satellite night light intensity (normalised)           | 1,159   | 0.01     | 0.02      | 0.00    | 0.11      |
| Total foreign mission staff                            | 1,159   | 5.00     | 7.24      | 1.00    | 136.00    |
| Total foreign medical doctors                          | 1,159   | 0.12     | 0.43      | 0.00    | 5.00      |

Table A.1: Descriptive statistics (cont'd)

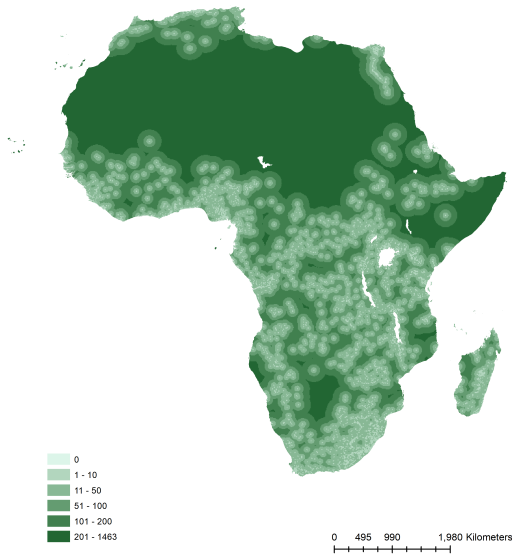
| Country | N       | Mean | Std. dev. | Min  | Max  | Country: | N       | Mean | Std. dev. | Min  | Max  |
|---------|---------|------|-----------|------|------|----------|---------|------|-----------|------|------|
| AGO     | 257,224 | 0.04 | 0.20      | 0.00 | 1.00 | MAR      | 257,224 | 0.02 | 0.13      | 0.00 | 1.00 |
| BDI     | 257,224 | 0.00 | 0.03      | 0.00 | 1.00 | MDG      | 257,224 | 0.02 | 0.14      | 0.00 | 1.00 |
| BEN     | 257,224 | 0.00 | 0.06      | 0.00 | 1.00 | MLI      | 257,224 | 0.04 | 0.20      | 0.00 | 1.00 |
| BFA     | 257,224 | 0.01 | 0.09      | 0.00 | 1.00 | MOZ      | 257,224 | 0.03 | 0.17      | 0.00 | 1.00 |
| BWA     | 257,224 | 0.02 | 0.14      | 0.00 | 1.00 | MRT      | 257,224 | 0.03 | 0.18      | 0.00 | 1.00 |
| CAF     | 257,224 | 0.02 | 0.14      | 0.00 | 1.00 | MUS      | 257,224 | 0.00 | 0.01      | 0.00 | 1.00 |
| CIV     | 257,224 | 0.01 | 0.10      | 0.00 | 1.00 | MWI      | 257,224 | 0.00 | 0.05      | 0.00 | 1.00 |
| CMR     | 257,224 | 0.02 | 0.13      | 0.00 | 1.00 | MYT      | 257,224 | 0.00 | 0.01      | 0.00 | 1.00 |
| COD     | 257,224 | 0.07 | 0.26      | 0.00 | 1.00 | NAM      | 257,224 | 0.03 | 0.17      | 0.00 | 1.00 |
| COG     | 257,224 | 0.01 | 0.10      | 0.00 | 1.00 | NER      | 257,224 | 0.04 | 0.19      | 0.00 | 1.00 |
| COM     | 257,224 | 0.00 | 0.01      | 0.00 | 1.00 | NGA      | 257,224 | 0.03 | 0.17      | 0.00 | 1.00 |
| CPV     | 257,224 | 0.00 | 0.02      | 0.00 | 1.00 | REU      | 257,224 | 0.00 | 0.01      | 0.00 | 1.00 |
| DJI     | 257,224 | 0.00 | 0.03      | 0.00 | 1.00 | RWA      | 257,224 | 0.00 | 0.03      | 0.00 | 1.00 |
| DZA     | 257,224 | 0.08 | 0.27      | 0.00 | 1.00 | SDN      | 257,224 | 0.06 | 0.24      | 0.00 | 1.00 |
| EGY     | 257,224 | 0.03 | 0.18      | 0.00 | 1.00 | SEN      | 257,224 | 0.01 | 0.08      | 0.00 | 1.00 |
| ERI     | 257,224 | 0.01 | 0.08      | 0.00 | 1.00 | SLE      | 257,224 | 0.00 | 0.05      | 0.00 | 1.00 |
| ESH     | 257,224 | 0.01 | 0.10      | 0.00 | 1.00 | SOM      | 257,224 | 0.02 | 0.15      | 0.00 | 1.00 |
| ESP     | 257,224 | 0.00 | 0.03      | 0.00 | 1.00 | SSD      | 257,224 | 0.02 | 0.14      | 0.00 | 1.00 |
| ETH     | 257,224 | 0.03 | 0.18      | 0.00 | 1.00 | STP      | 257,224 | 0.00 | 0.01      | 0.00 | 1.00 |
| GAB     | 257,224 | 0.01 | 0.09      | 0.00 | 1.00 | SWZ      | 257,224 | 0.00 | 0.02      | 0.00 | 1.00 |
| GHA     | 257,224 | 0.01 | 0.09      | 0.00 | 1.00 | SYC      | 257,224 | 0.00 | 0.02      | 0.00 | 1.00 |
| GIN     | 257,224 | 0.01 | 0.09      | 0.00 | 1.00 | TCD      | 257,224 | 0.04 | 0.20      | 0.00 | 1.00 |
| GMB     | 257,224 | 0.00 | 0.03      | 0.00 | 1.00 | TGO      | 257,224 | 0.00 | 0.04      | 0.00 | 1.00 |
| GNB     | 257,224 | 0.00 | 0.04      | 0.00 | 1.00 | TUN      | 257,224 | 0.01 | 0.08      | 0.00 | 1.00 |
| GNQ     | 257,224 | 0.00 | 0.03      | 0.00 | 1.00 | TZA      | 257,224 | 0.03 | 0.17      | 0.00 | 1.00 |
| KEN     | 257,224 | 0.02 | 0.14      | 0.00 | 1.00 | UGA      | 257,224 | 0.01 | 0.08      | 0.00 | 1.00 |
| LBR     | 257,224 | 0.00 | 0.06      | 0.00 | 1.00 | ZAF      | 257,224 | 0.04 | 0.21      | 0.00 | 1.00 |
| LBY     | 257,224 | 0.06 | 0.23      | 0.00 | 1.00 | ZMB      | 257,224 | 0.02 | 0.15      | 0.00 | 1.00 |
| LSO     | 257,224 | 0.00 | 0.03      | 0.00 | 1.00 | ZWE      | 257,224 | 0.01 | 0.11      | 0.00 | 1.00 |

*Sources:* Population density: [Rose and Bright \(2014\)](#), elevation and ruggedness: [Danielson and Gesch \(2011\)](#), malaria: [Kiszewski et al. \(2004\)](#), tsetse ecology: [Alsan \(2015\)](#), rainfall and temperature: [Fick and Hijmans \(2017\)](#), land suitability for agriculture: [Ramankutty et al. \(2002\)](#), uninhabited cells, islands, and Sub-Saharan Africa: [Patterson and Kelso \(2012\)](#), and colonial powers in 1913: [Bartholomew \(1915\)](#). Geodesic distances were calculated using data for: precolonial cities ([Chandler \(1987\)](#)), historical Muslim seat locations ([Sluglett and Currie \(2015\)](#)), railways and historical explorer routes ([Nunn and Wantchekon \(2011\)](#)), coasts and navigable rivers ([Andreadis et al. \(2013\)](#)), major mineral deposits ([Schulz and Briskey \(2005\)](#)), present-day major cities ([Patterson and Kelso \(2012\)](#)) and contemporary national borders ([United Nations Geospatial \(2018\)](#)). Homeland borders ([Murdock, 1959](#); [Nunn, 2008](#)). Mission station locations and staff details: Roome Atlas ([Roome, 1925](#); [Nunn, 2010](#)), Johnson Atlas ([Johnson, 1967](#); [Becker et al., 2022b](#)), and Beach and Fahs Atlas ([Beach et al., 1925](#); [Becker et al., 2022a](#); [Becker and Meier zu Selhausen, 2023](#)).

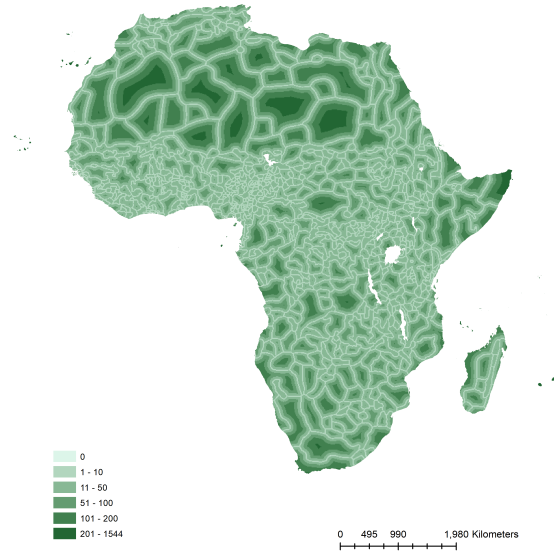
## B Maps

### B.1 Maps of explanatory variables

(A) Distance to nearest mission station



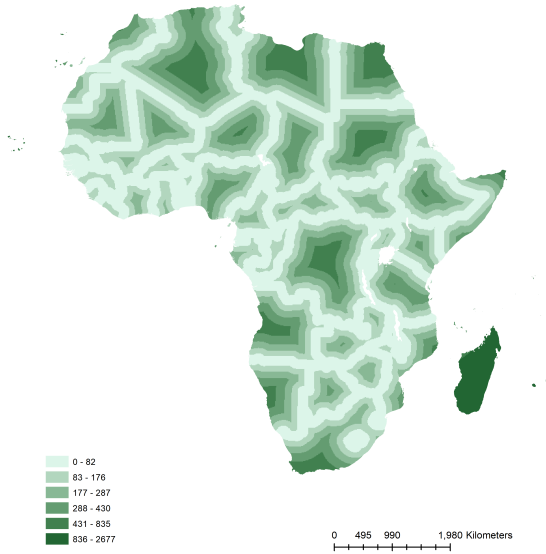
(B) Distance to nearest homeland border



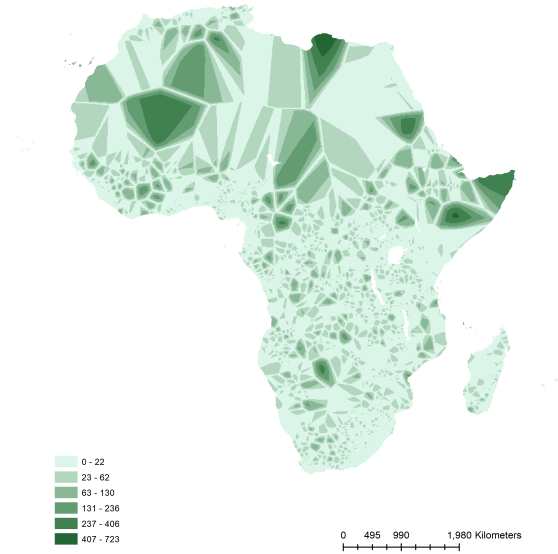
*Sources:* Geodesic distances were derived from our GIS-based grid cells using Christian mission stations from [Roome \(1925\)](#); [Johnson \(1967\)](#); [Nunn et al. \(2014\)](#); [Becker et al. \(2022b\)](#) and homeland borders from [Murdock \(1959\)](#); [Nunn \(2008\)](#) as underlying data.

## B.2 Maps of confounding factors

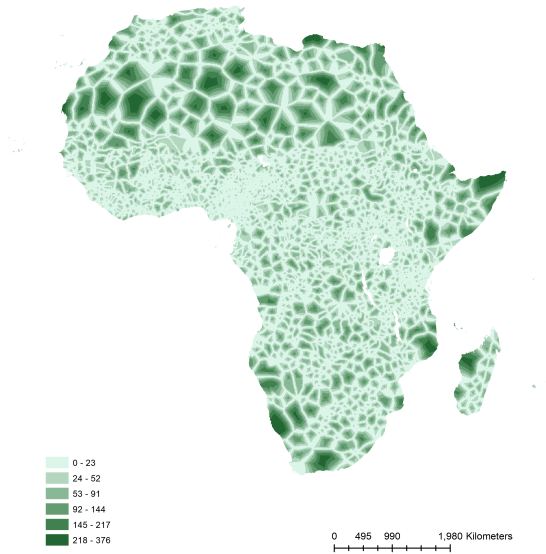
(A) Distance to inland national border



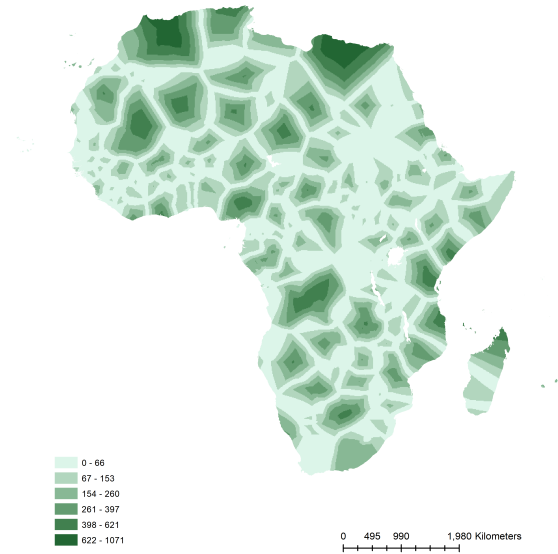
(B) Gap between 1st and 2nd mission station



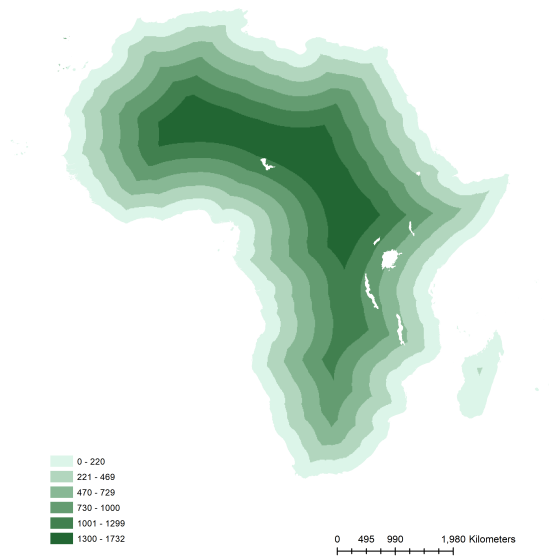
(C) Gap between 1st and 2nd homeland border



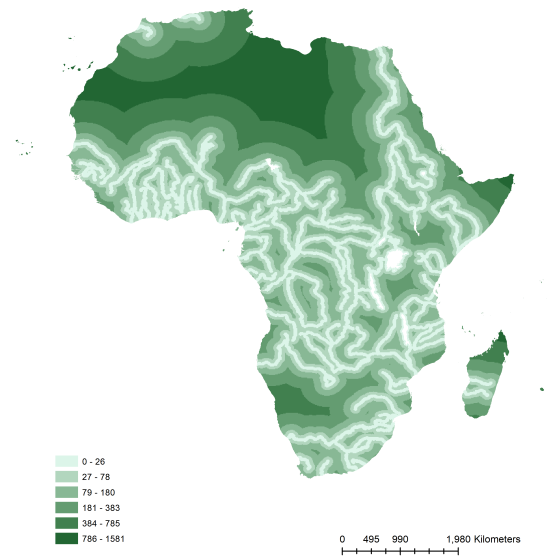
(D) Gap between 1st and 2nd national border



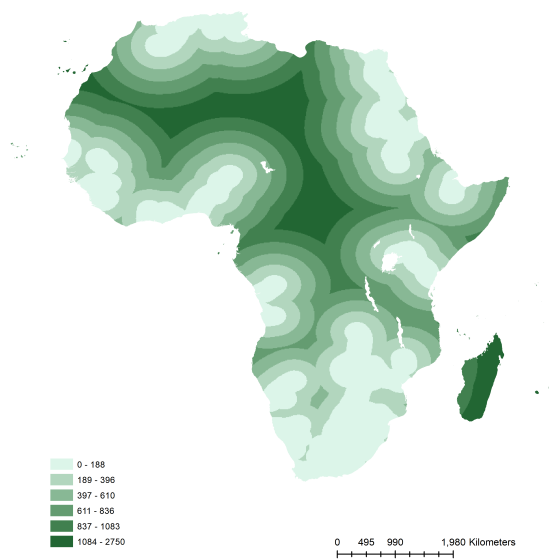
(E) Distance to coast



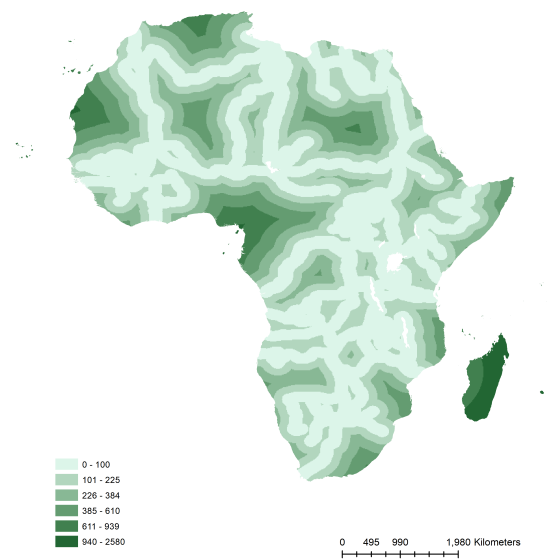
(F) Distance to river



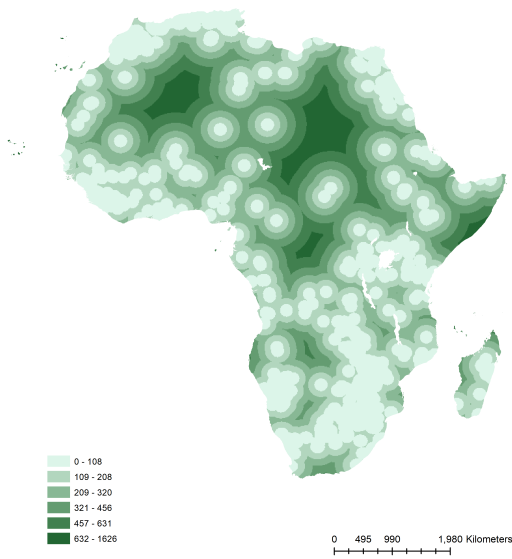
(G) Distance to rails



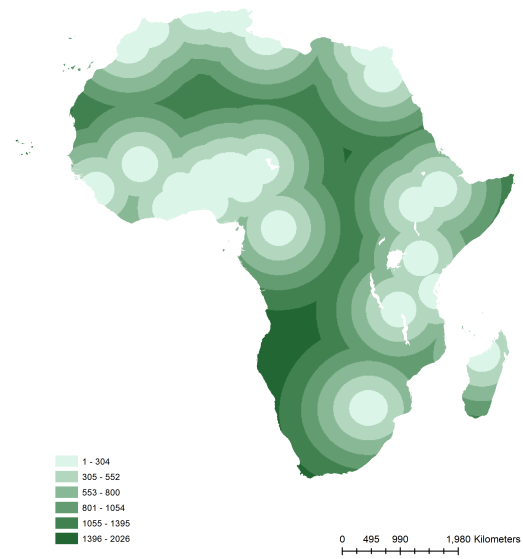
(H) Distance to explorer route



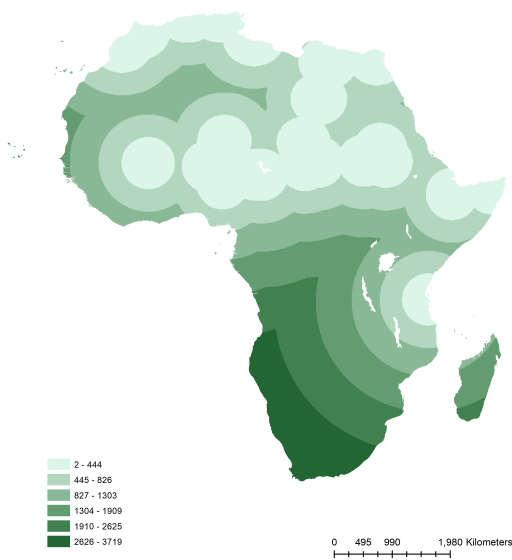
(I) Distance to mine



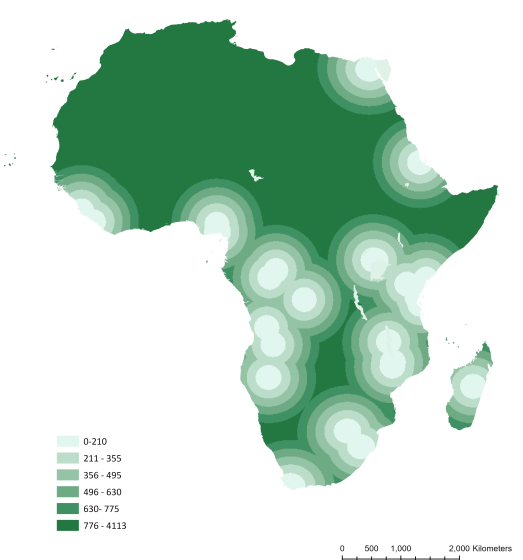
(J) Distance to precolonial city



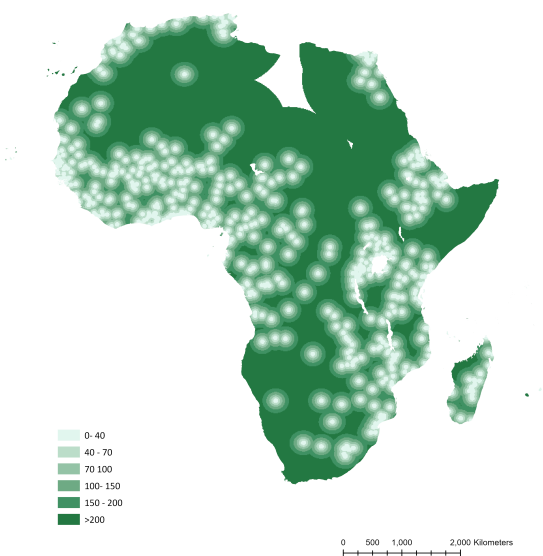
(K) Distance to Muslim seat



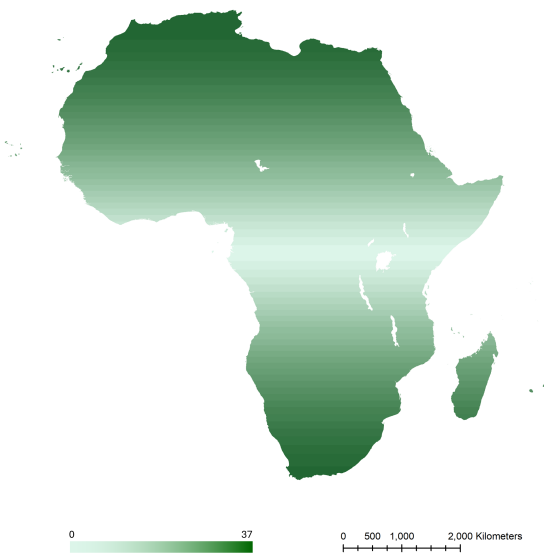
(L) Distance to printing press



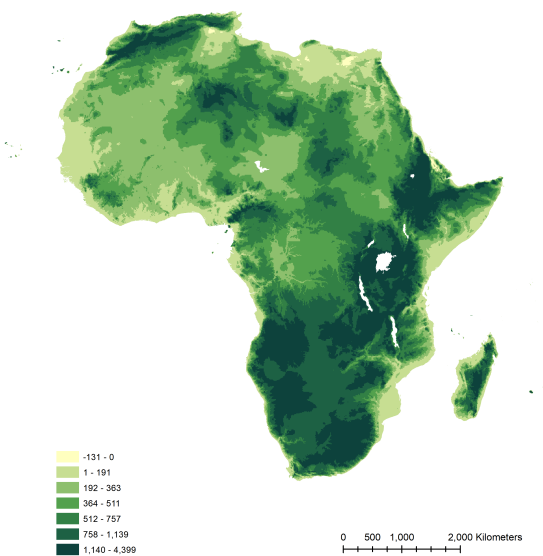
(M) Distance to World Bank project location



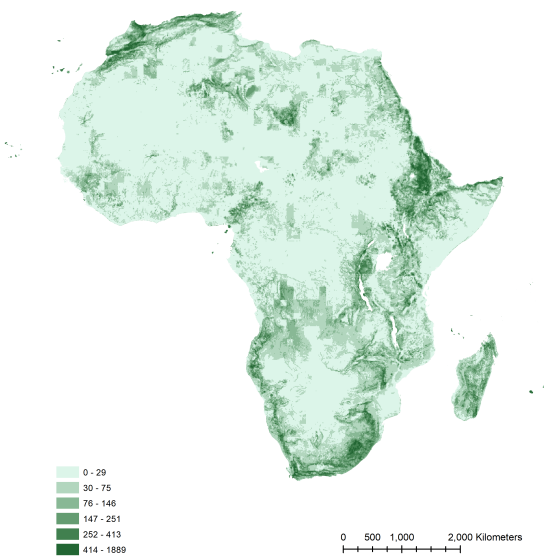
(N) Absolute latitude



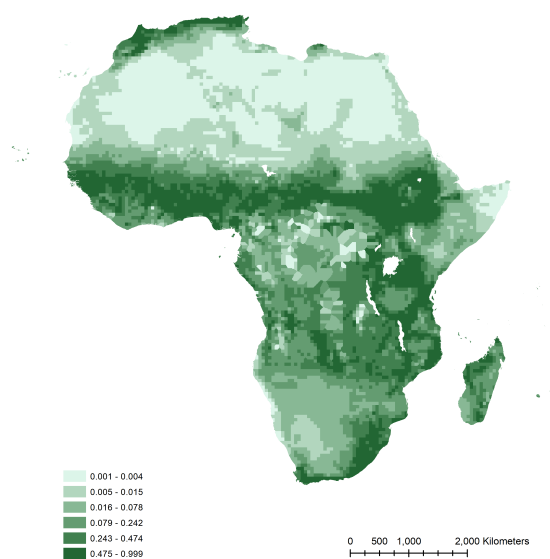
(O) Elevation



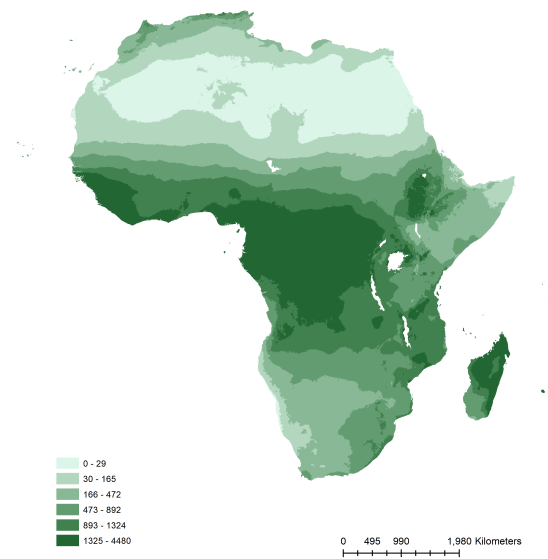
(P) Ruggedness



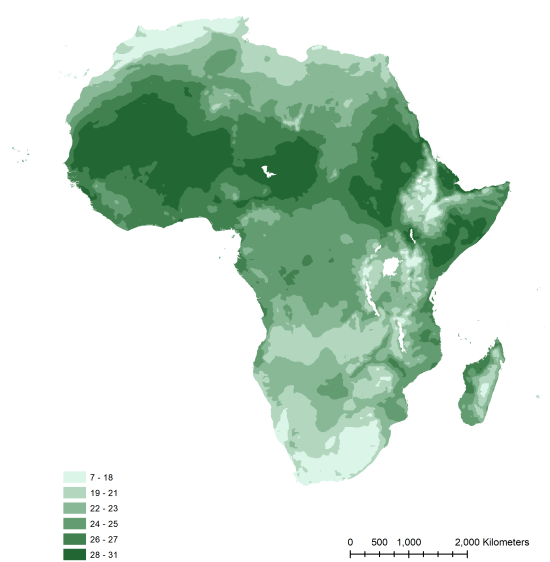
(Q) Land suitability for agriculture



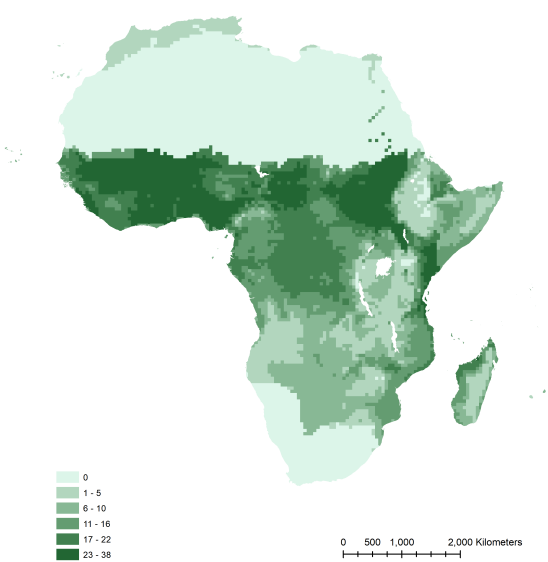
(R) Rainfall



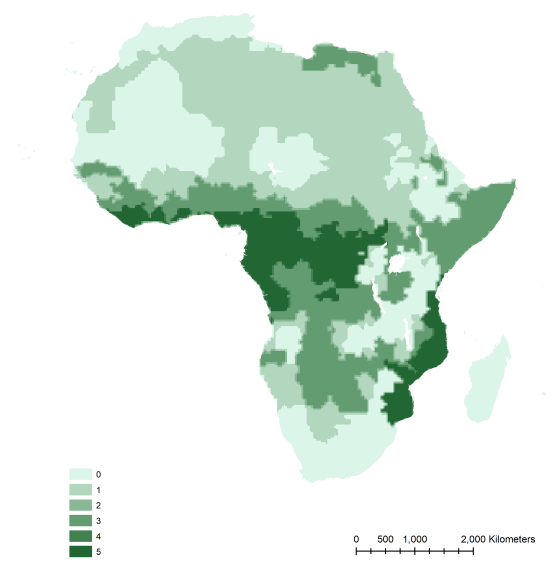
(S) Temperature



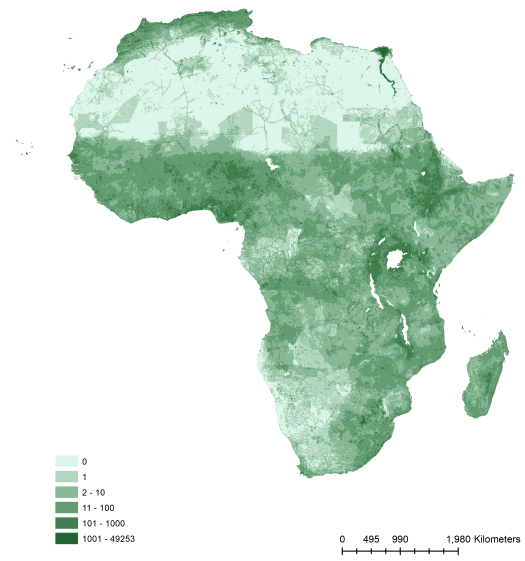
(T) Malaria



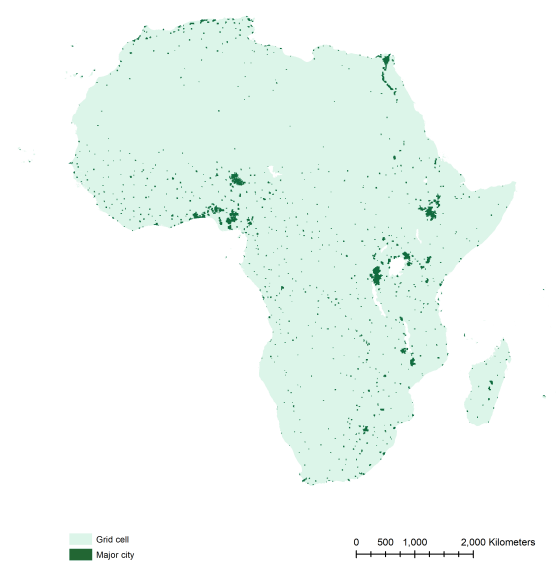
(U) Tsetse fly



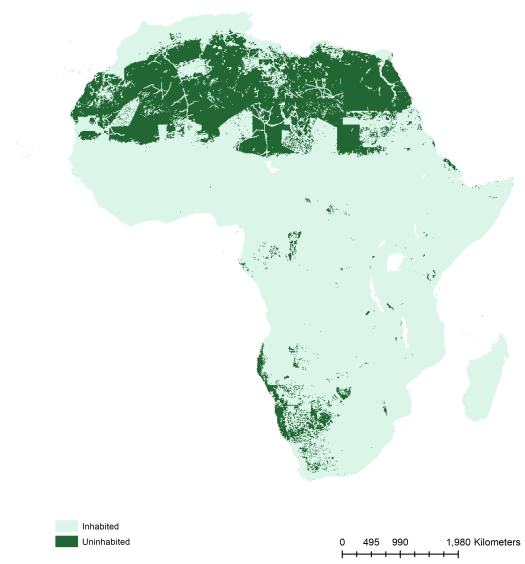
(V) Population density



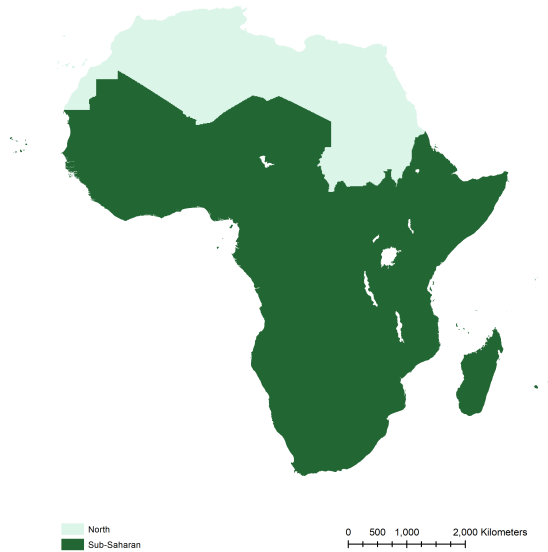
(W) Major cities



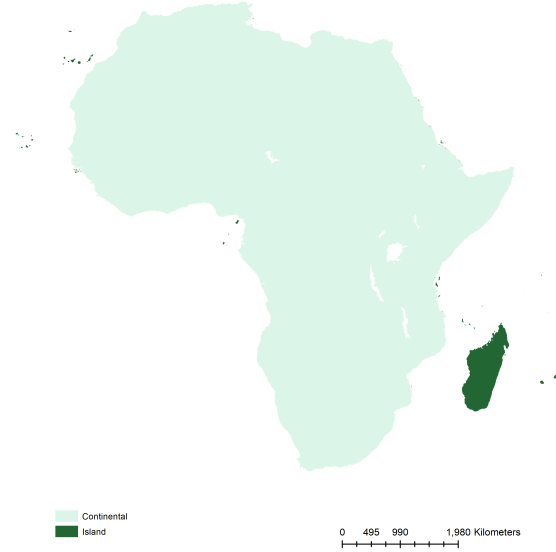
(X) Uninhabited grid cells



(Y) Sub-Saharan Africa

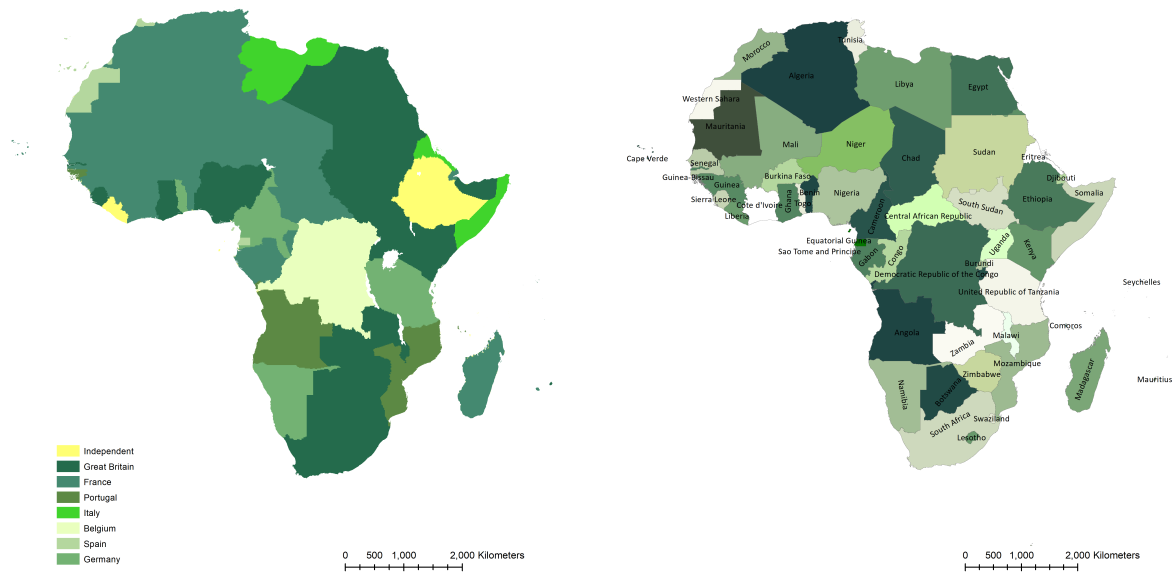


(Z) Island



*Sources:* All distance calculations are geodesic. The underlying sources for these calculations are: first and second distances to inland contemporary national borders (A, D) come from [United Nations Geospatial \(2018\)](#); gap between first and second mission station distances (B) from [Roome \(1925\)](#); [Johnson \(1967\)](#); [Nunn et al. \(2014\)](#); [Becker et al. \(2022b\)](#); gap between homeland-border distances (C) from [Murdock \(1959\)](#); [Nunn \(2008\)](#); distance to coasts and rivers (E–F) from [Andreadis et al. \(2013\)](#), to rails and explorer routes (G–H) from [Nunn and Wantchekon \(2011\)](#), to major mineral deposits (I) from [Schulz and Briskey \(2005\)](#), to precolonial cities (J) from [Chandler \(1987\)](#), to Muslim seats (K) from [Sluglett and Currie \(2015\)](#), to printing presses (L) from [Cagé and Rueda \(2016\)](#) and to World Bank projects (M) from [AidData \(2017\)](#); absolute latitude (N) calculated in this study using GIS; elevation and ruggedness (O–P) come from [Danielson and Gesch \(2011\)](#), land suitability for agriculture (Q) from [Ramankutty et al. \(2002\)](#), rainfall and temperature (R–S) from [Fick and Hijmans \(2017\)](#), malaria ecology (T) from [Kiszewski et al. \(2004\)](#), and tsetse fly ecology (U) from [Alsan \(2015\)](#). Population density (V) and uninhabited grid cells (X) come from [Rose and Bright \(2014\)](#), and major cities, Sub-Saharan boundary, and islands (W–Z) come from [Patterson and Kelso \(2012\)](#).

### B.3 Maps of colonisers and countries of 1913



*Sources:* Colonial powers and country outlines in 1913 from [Bartholomew \(1915\)](#). Replication details in Appendix C.

## C Replication details

This appendix explains how the data used in our study, as represented in Appendices B.1 and B.2, was prepared for analysis. Our study employs a spatial distance analysis, which relies upon geodesic distances – the shortest paths over the WGS84 ellipsoid – calculated across the entire African continent to various features (notably mission stations and homeland borders). This geodesic approach helps us analyse geographic relationships and patterns within our study area.

We begin by creating a uniform grid that covers the entire continent of Africa. The grid consists of 257,224 contiguous, mutually exclusive polygon cells, each serving as a unique analytical unit. These cells measure 0.1 x 0.1 arc degrees (approximately 11 x 11 km) and have centroids, which are the centres of the polygon areas as if they were circles. The coordinates of the centroids are based on the grid’s spatial reference system. Map N in Appendix B.2 shows the latitude for each cell.

Our analysis uses datasets in various formats, including shapefiles, rasters, and digitised maps, each requiring specific processing methods. For point data (e.g. mission station locations), we determine which grid cell each point falls into and then calculate its position relative to the grid cell centroids. This allows us to compute the shortest distance from our 257,224 cells to each of the point locations. For line data (e.g. homeland borders), we intersect the lines with the grid cells to analyse their proximity. This enabled us to calculate the shortest distance from each grid cell to the nearest border. For polygon data (e.g. administrative boundaries), we align the polygons with the grid cells and assign attributes based on the intersection area. For example, we extract the country name for the grid cell’s centroid. For raster data (e.g., satellite night light), we align the raster with our grid cells and extract relevant statistics for each grid cell.

Table C.1 provides an overview of all data sources and extraction methods. The sections that follow detail the steps we took to obtain each variable.

### C.1 Point shapefiles

Some of our variables, such as the location of colonial mission stations, are described in the original sources as point features. We use the latitude and longitude coordinates reported in the atlases of [Roome \(1925\)](#) and [Johnson \(1967\)](#) (see Figure 2 (B)). By assigning each mission station’s location to its corresponding grid cell, we calculate the geodesic distances in kilometres from the centroid of each grid cell to the nearest mission station (see Map A in Appendix B.2). We also calculate the distance to the second-nearest mission station,

allowing us to determine the gap in kilometres between the nearest and the second-nearest mission stations (see Map B in Appendix B.2). The latter information helps us account for the spatial clustering of mission stations.

We apply the same methodology to other point features. The distances to precolonial cities are based on a list of African metropolises between 1800 and 1850 reported by [Chandler \(1987\)](#). The latitude and longitude coordinates of precolonial cities are used to create a layer of point features, which we merge with our grid. The distances from each grid cell’s centroid to the closest precolonial city are illustrated in Map J in Appendix B.2. In the case of Muslim seats, we use the information provided in maps number 40, 41 and 42 of *”The Atlas of Islamic History”* by [Sluglett and Currie \(2015\)](#). After geocoding the locations marked as Muslim seats, we calculate the distances from each grid cell to the closest Muslim seat (see Map K in Appendix B.2). Distance to World Bank project locations (see Map M in Appendix B.2) is calculated using the coordinates of aid projects reported by [AidData \(2017\)](#). We compiled these project points into a shapefile and then computed geodesic distances from each grid-cell centroid to its nearest World Bank project.

Information about the location of major mineral deposits comes from the shapefile data of the U.S. Geological Survey from [Schulz and Briskey \(2005\)](#), which we merge with our grid layer to calculate the shortest distance from the centroid of each grid cell to a mineral deposit (see Map I in Appendix B.2). Similarly, the distance to the printing press (Map L) comes from a similar approach, retrieving the locations of printing presses from the shapefiles provided by [Cagé and Rueda \(2016\)](#).

## C.2 Polyline shapefiles

Line segments represent several of our variables. These include homeland borders, national borders, railways, historical explorer routes, rivers, and coastlines. For each, we calculate geodesic distances from the centroid of each grid cell to the nearest point on the polyline, using the same method applied to point data.

Although administrative boundaries are typically stored as polygons, we convert both homeland and national borders to polylines for this analysis. We remove coastal segments to ensure we measure distances only to inland borders before calculating distances. This preprocessing step is applied to the homeland borders shown in Figure 2 (C) and the national borders shown in Map Y of Appendix B.2.

For homeland borders [Murdock \(1959\)](#), the raw distance to the nearest border is shown in Map B of Appendix B.1, and the gap to the second-nearest border – which captures any potential spatial clustering – is shown in Map C of Appendix B.2. We apply the same

procedure to national borders [United Nations Geospatial \(2018\)](#), with the raw distance in Map A and the gap in Map D of Appendix B.2.

We follow the same approach for other linear features. Distances to coastlines and navigable rivers from [Andreadis et al. \(2013\)](#) are shown in Maps E and F of Appendix B.2. This coastal shapefile also allows us to derive a binary “island” variable by identifying grid cells surrounded by water. This is illustrated in Map Z of Appendix B.2.

In addition, we obtain distances from our centroids to railways and historical explorer routes from shapefiles provided by [Nunn and Wantchekon \(2011\)](#). These correspond to Maps G and H in Appendix B.2.

### C.3 Polygon shapefiles

Some of our data, such as national and colonial territories, are represented as polygons. We merge these polygons with our grid, assigning each grid cell the attributes of the relevant polygon. Information about contemporary African countries comes from [United Nations Geospatial \(2018\)](#). We also use the national boundaries shapefile to create a binary variable holding the value one for grid cells located in the Sub-Saharan region and zero otherwise, as illustrated in Map Y in Appendix B.2. We obtain information about present-day major African cities from a polygon shapefile shared by the World Urban Areas [Patterson and Kelso \(2012\)](#). We use the polygon information to create a binary variable taking on the value one if the grid cell contained a major city and zero otherwise (Map W in Appendix B.2).

### C.4 Raster files

Some of the datasets used in our analysis – e.g., satellite night light imagery, rainfall, temperature, etc. – are available in raster maps (a digital image representing geographic data where each pixel or cell represents a value on a measurable attribute). These maps were aligned with our grid coordinates before conducting the spatial joining procedure. Then, we can extract a value for each grid cell based on the average or sum of raster values within. For non-full-sized coastal grid cells for which raster values cannot be obtained, we use the average values of the surrounding (i.e. closest neighbouring) grid cells instead. The details for each variable and its sources are described below.

First, the satellite night-light data for 2010 comes from US Defense Meteorological Satellite Program data collected by the US Air Force Weather Agency, [Earth Observation Group \(2011\)](#). Each grid cell is assigned the value statistics of the raster pixels within, which are then normalised for more straightforward interpretation of the results (see Figure 2 (A)).

The satellite night light data for 2023 were not readily available. They were processed as follows: the data originates from the VIIRS (Visible Infrared Imaging Radiometer Suite) system accessed via the NASA Earthdata platform ([NASA Earth Observing System Data and Information System \(EOSDIS\) \(2024\)](#)). The night light intensity measuring approach is somewhat different from how older DMSP datasets (including the one of 2010) were captured ([Gibson et al. \(2021\)](#)). Discrepancies between our results of using the 2010 and 2023 data may be due to this reason.

NASA’s Earth data for 2023 is stored in Hierarchical Data Format (.h5), specifically designed to efficiently store and organise large amounts of data. The dataset is arranged into a global grid, divided into 17 vertical and 35 horizontal squares, totalling 595 sections (tiles). We used 81 of these tiles to obtain information regarding the African continent. To retrieve the layer corresponding to night light, we converted the 81 files into GeoTIFF format using the open-source GDAL library ([GDAL Development Team \(2013\)](#)). Following conversion, we assembled these files into a single mosaic encompassing the African continent. This process resulted in a single comprehensive raster file covering the entire continent. Like other raster datasets, we assigned each of our 257,244 grid cells the total value of the raster pixels within.

Several other variables are retrieved from raster datasets. Population density is derived from the LandScan raster dataset by [Rose and Bright \(2014\)](#). The raster is built upon census data regarding contemporary population distributions in thousands of people per square kilometre. We calculate the mean values of the raster pixels by cell, reported in Map V of Appendix B.2. Uninhabited grid cells are obtained from the same raster, using a binary variable equal to one if the grid cell is empty and zero if populated, as illustrated in Map X.

Elevation and ruggedness are calculated from the GMTDED2010 raster dataset of [Danielson and Gesch \(2011\)](#). For elevation, we retrieve the maximum value in kilometres above (or below) the sea level by cell. Ruggedness is calculated as the standard deviation of elevation within each cell. These data are presented in Maps O and P of Appendix B.2.

The rainfall and temperature data are available from WorldClim ([Fick and Hijmans \(2017\)](#)). We use the second version of their Bioclimatic variables. This provides us with yearly averages at the finest resolution (30 arc seconds) between 1970 and 2000, with rainfall measured in millimetres and temperature in degrees Celsius (see Maps R and S in Appendix B.2).

Finally, some of our variables do not originate from direct raster datasets but rather from academic publications that include illustration maps. These include land suitability for agriculture, malaria, and tsetse fly ecology. Since we cannot access raster datasets, we derive the information by aligning the maps over our grid cells and obtaining the necessary statistics

by cell. Land suitability for agriculture comes from the overall index of land suitability for cultivation presented in [Ramankutty et al. \(2002\)](#) (see Map Q in Appendix B.2). Similarly, we use the stability index for malaria from [Kiszewski et al. \(2004\)](#) (see Map T), which ranks cells from least suitable to most suitable in categories. Tsetse fly ecology data is derived from [Alsan \(2015\)](#), which categorises each location by its suitability index (see Map U). Lastly, information about the colonial powers in 1913 is derived from [Bartholomew \(1915\)](#). The national territories are illustrated in Map AB in Appendix B.2, while the colonial territories in 1913 are shown in Map AA.

Table C.1: Summary of variables, sources, and data types

| Variable                     | Map             | Data Type | Computation | Sources                                                             |
|------------------------------|-----------------|-----------|-------------|---------------------------------------------------------------------|
| Distance to mission station  | <b>App B A</b>  | Point     | Calculated  | <a href="#">Nunn (2010)</a> ; <a href="#">Becker et al. (2022b)</a> |
| Distance to homeland border  | <b>App B B</b>  | Polyline  | Calculated  | <a href="#">Murdock (1959)</a> ; <a href="#">Nunn (2008)</a>        |
| Distance to national border  | <b>App C A</b>  | Polyline  | Calculated  | <a href="#">United Nations Geospatial (2018)</a>                    |
| Gap to 2nd mission station   | <b>App C B</b>  | Point     | Calculated  | <a href="#">Nunn (2010)</a> ; <a href="#">Becker et al. (2022b)</a> |
| Gap to 2nd homeland border   | <b>App C C</b>  | Polyline  | Calculated  | <a href="#">Murdock (1959)</a> ; <a href="#">Nunn (2008)</a>        |
| Gap to 2nd national border   | <b>App C D</b>  | Polyline  | Calculated  | <a href="#">United Nations Geospatial (2018)</a>                    |
| Distance to coast            | <b>App C E</b>  | Polyline  | Calculated  | <a href="#">Andreadis et al. (2013)</a>                             |
| Distance to river            | <b>App C F</b>  | Polyline  | Calculated  | <a href="#">Andreadis et al. (2013)</a>                             |
| Distance to railway          | <b>App C G</b>  | Polyline  | Calculated  | <a href="#">Nunn and Wantchekon (2011)</a>                          |
| Distance to explorer route   | <b>App C H</b>  | Polyline  | Calculated  | <a href="#">Nunn and Wantchekon (2011)</a>                          |
| Distance to mine             | <b>App C I</b>  | Point     | Calculated  | <a href="#">Schulz and Briskey (2005)</a>                           |
| Distance to precolonial city | <b>App C J</b>  | Point     | Calculated  | <a href="#">Chandler (1987)</a>                                     |
| Distance to Muslim seat      | <b>App C K</b>  | Point     | Calculated  | <a href="#">Sluglett and Currie (2015)</a>                          |
| Distance to printing press   | <b>App C L</b>  | Point     | Calculated  | <a href="#">Cagé and Rueda (2016)</a>                               |
| Distance to World Bank aid   | <b>App C M</b>  | Point     | Calculated  | <a href="#">AidData (2017)</a>                                      |
| Absolute latitude            | <b>App C N</b>  | Derived   | Computed    | From grid geometry                                                  |
| Elevation                    | <b>App C O</b>  | Raster    | Extracted   | <a href="#">Danielson and Gesch (2011)</a>                          |
| Ruggedness                   | <b>App C P</b>  | Raster    | Computed    | <a href="#">Danielson and Gesch (2011)</a>                          |
| Land suitability             | <b>App C Q</b>  | Image     | Extracted   | <a href="#">Ramankutty et al. (2002)</a>                            |
| Rainfall                     | <b>App C R</b>  | Raster    | Extracted   | <a href="#">Fick and Hijmans (2017)</a>                             |
| Temperature                  | <b>App C S</b>  | Raster    | Extracted   | <a href="#">Fick and Hijmans (2017)</a>                             |
| Malaria ecology              | <b>App C T</b>  | Image     | Extracted   | <a href="#">Kiszewski et al. (2004)</a>                             |
| Tsetse fly ecology           | <b>App C U</b>  | Image     | Extracted   | <a href="#">Alsan (2015)</a>                                        |
| Population density           | <b>App C V</b>  | Raster    | Extracted   | <a href="#">Rose and Bright (2014)</a>                              |
| Binary variables:            |                 |           |             |                                                                     |
| Major city                   | <b>App C W</b>  | Polygon   | Extracted   | <a href="#">Patterson and Kelso (2012)</a>                          |
| Uninhabited cell             | <b>App C X</b>  | Raster    | Derived     | <a href="#">Rose and Bright (2014)</a>                              |
| Sub-Saharan Africa           | <b>App C Y</b>  | Polygon   | Derived     | <a href="#">United Nations Geospatial (2018)</a>                    |
| Island                       | <b>App C Z</b>  | Polyline  | Derived     | <a href="#">Andreadis et al. (2013)</a>                             |
| Colonial powers in 1913      | <b>App C AA</b> | Polygon   | Extracted   | <a href="#">Bartholomew (1915)</a>                                  |
| Countries in 1913            | <b>App C AB</b> | Polygon   | Extracted   | <a href="#">Bartholomew (1915)</a>                                  |

*Notes:* This table summarises the geospatial variables used in the analysis, including their data type, processing method, and source. “Extracted” means the value was assigned to each grid cell from the source layer (e.g., via spatial join or raster extraction). “Calculated” refers to geodesic distances from grid cell centroids to the nearest feature. “Derived” refers to flags based on feature presence (e.g., island, uninhabited). All distances are computed geodesically over the WGS84 ellipsoid.

## D Baseline results

Table D.1: Night light by distance to the nearest mission station

| Distance bin     | Coef.   | Std. err. | t      | P>t   | [95% confidence | intervals] |
|------------------|---------|-----------|--------|-------|-----------------|------------|
| 0-10 km          | 0.0071  | 0.0002    | 33.39  | 0.000 | 0.0067          | 0.0075     |
| 10-20 km         | 0.0029  | 0.0001    | 29.39  | 0.000 | 0.0027          | 0.0030     |
| 20-30 km         | 0.0013  | 0.0001    | 20.96  | 0.000 | 0.0012          | 0.0015     |
| 30-40 km         | 0.0009  | 0.0001    | 11.32  | 0.000 | 0.0007          | 0.0010     |
| 40-50 km         | 0.0004  | 0.0000    | 9.37   | 0.000 | 0.0003          | 0.0005     |
| 50-60 km         | 0.0003  | 0.0000    | 7.81   | 0.000 | 0.0002          | 0.0004     |
| 60-70 km         | 0.0002  | 0.0000    | 4.48   | 0.000 | 0.0001          | 0.0002     |
| 70-80 km         | 0.0001  | 0.0000    | 3.54   | 0.000 | 0.0001          | 0.0002     |
| 80-90 km         | 0.0001  | 0.0000    | 1.48   | 0.138 | 0.0000          | 0.0001     |
| 90-100 km        | 0.0000  | 0.0000    | 0.35   | 0.727 | -0.0001         | 0.0001     |
| > 100 km         | 0.0000  | (omitted) |        |       |                 |            |
| Uninhabited      | -0.0003 | 0.0000    | -10.29 | 0.000 | -0.0003         | -0.0002    |
| Constant         | 0.0004  | 0.0000    | 31.12  | 0.000 | 0.0004          | 0.0004     |
| Robust std. err. |         |           |        |       |                 | Yes        |
| R <sup>2</sup>   |         |           |        |       |                 | 0.053      |
| N                |         |           |        |       |                 | 257,224    |

*Notes:* The table reports the results of regressing night light on the geodesic distances (grouped into 10-km bins) from the centroid of each grid cell to a mission station. The reference area consists of grid cells located more than 100 km from a mission station. The regression model (see Equation 1 on page 11) has robust standard errors and controls for uninhabited grid cells. All variables are log-linearised except binaries.

Table D.2: Night light by distance to the nearest homeland border

| Distance bin   | Conf.   | Std. err. | t     | P>t   | 95% confidence | intervals |
|----------------|---------|-----------|-------|-------|----------------|-----------|
| 0-10 km        | -0.0004 | 0.0000    | -10.1 | 0.000 | -0.0005        | -0.0004   |
| 10-20 km       | -0.0003 | 0.0000    | -7.7  | 0.000 | -0.0004        | -0.0003   |
| 20-30 km       | -0.0002 | 0.0000    | -3.7  | 0.000 | -0.0003        | -0.0001   |
| 30-40 km       | -0.0001 | 0.0001    | -2.0  | 0.050 | -0.0002        | 0.0000    |
| 40-50 km       | 0.0000  | 0.0001    | -0.1  | 0.900 | -0.0001        | 0.0001    |
| 50-60 km       | 0.0000  | 0.0001    | -0.3  | 0.741 | -0.0001        | 0.0001    |
| 60-70 km       | 0.0000  | 0.0001    | 0.5   | 0.638 | -0.0001        | 0.0002    |
| 70-80 km       | 0.0001  | 0.0001    | 1.1   | 0.258 | -0.0001        | 0.0002    |
| 80-90 km       | 0.0000  | 0.0001    | 0.5   | 0.632 | -0.0001        | 0.0002    |
| 90-100 km      | -0.0001 | 0.0001    | -1.1  | 0.264 | -0.0003        | 0.0001    |
| >100 km        | 0.0000  | (omitted) |       |       |                |           |
| Uninhabited    | -0.0010 | 0.0000    | -37.2 | 0.000 | -0.0011        | -0.0010   |
| Constant       | 0.0013  | 0.0000    | 33.4  | 0.000 | 0.0012         | 0.0014    |
| Other controls |         |           |       |       |                | No        |
| Std. err.      |         |           |       |       |                | Robust    |
| R2             |         |           |       |       |                | 0.0045    |
| N              |         |           |       |       |                | 257,224   |

*Notes:* The table reports the results of regressing night light on the geodesic distances (grouped into 10-km bins) from the centroid of each grid cell to a homeland border. The reference area consists of grid cells more than 100 km from a homeland border. The regression model (see Equation 1 on page 11) has robust standard errors and controls for uninhabited grid cells. All variables are log-linearised except binaries.

Table D.3: Night light by distance to the nearest mission station:  
Restricted reference group (100-200 km from the nearest mission station)

| Distance bin   | Coef.   | Std. err. | t     | P>t   | [95% confidence | intervals] |
|----------------|---------|-----------|-------|-------|-----------------|------------|
| 0-10 km        | 0.0050  | 0.0002    | 33.0  | 0.000 | 0.0066          | 0.0074     |
| 10-20 km       | 0.0028  | 0.0001    | 28.5  | 0.000 | 0.0026          | 0.0030     |
| 20-30 km       | 0.0013  | 0.0001    | 19.4  | 0.000 | 0.0011          | 0.0014     |
| 30-40 km       | 0.0001  | 0.0001    | 10.6  | 0.000 | 0.0006          | 0.0009     |
| 40-50 km       | 0.0003  | 0.0000    | 7.2   | 0.000 | 0.0002          | 0.0004     |
| 50-60 km       | 0.0002  | 0.0000    | 5.6   | 0.000 | 0.0002          | 0.0003     |
| 60-70 km       | 0.0001  | 0.0000    | 2.3   | 0.020 | 0.0000          | 0.0002     |
| 70-80 km       | 0.0001  | 0.0000    | 1.4   | 0.151 | -0.0000         | 0.0001     |
| 80-90 km       | -0.0000 | 0.0000    | -0.7  | 0.472 | -0.0001         | 0.0001     |
| 90-100 km      | -0.0001 | 0.0000    | -1.8  | 0.079 | -0.0001         | 0.0000     |
| 100-200 km     | 0.0000  | (omitted) |       |       |                 |            |
| >200 km        | -0.0001 | 0.0000    | -6.2  | 0.000 | -0.0002         | -0.0001    |
| Uninhabited    | -0.0002 | 0.0001    | -2.15 | 0.031 | -0.0004         | 0.0000     |
| Constant       | 0.0005  | 0.0000    | 29.04 | 0.000 | 0.0005          | 0.0005     |
| Other controls |         |           |       |       |                 | No         |
| Std. err.      |         |           |       |       |                 | Robust     |
| R2             |         |           |       |       |                 | 0.0531     |
| N              |         |           |       |       |                 | 257,224    |

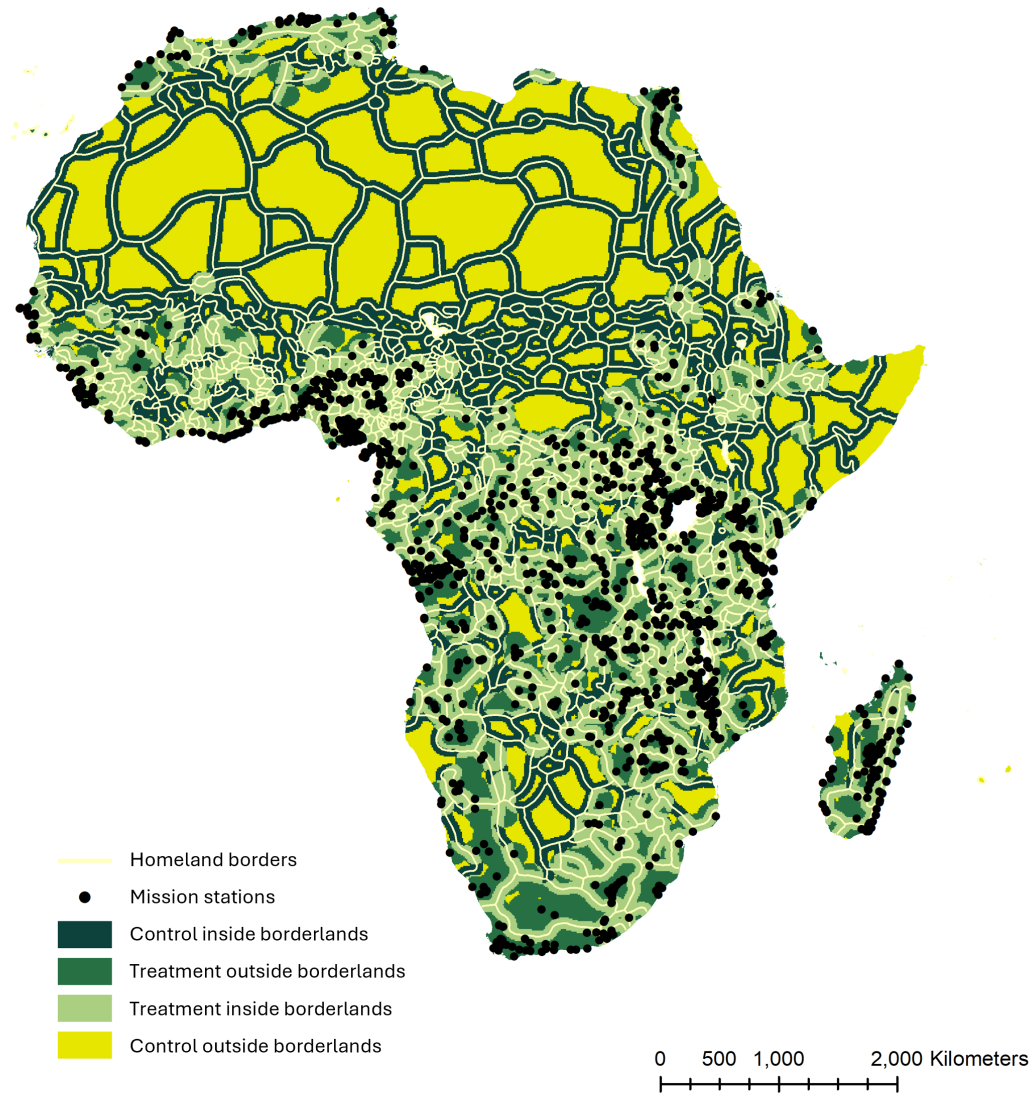
*Notes:* The table reports the results of regressing night light on the geodesic distances (grouped into 10-km bins) from the centroid of each grid cell to a mission station. The reference area consists of grid cells located between 100 and 200 km from a mission station. The regression model (see Equation 1 on page 11) has robust standard errors and controls for uninhabited grid cells. All variables are log-linearised except binaries.

Table D.4: Night light by distance to the nearest homeland border:  
Restricted reference group (100-200 km from the nearest homeland border)

| Distance bin   | Coef.   | Std. err. | t     | P>t   | [95% confidence | intervals] |
|----------------|---------|-----------|-------|-------|-----------------|------------|
| 0-10 km        | -0.0004 | 0.0000    | -9.3  | 0.000 | -0.0005         | -0.0003    |
| 10-20 km       | -0.0003 | 0.0001    | -7.1  | 0.000 | -0.0004         | -0.0002    |
| 20-30 km       | -0.0002 | 0.0001    | -3.2  | 0.001 | -0.0003         | -0.0001    |
| 30-40 km       | -0.0001 | 0.0001    | -1.6  | 0.111 | -0.0002         | 0.0000     |
| 40-50 km       | 0.0001  | 0.0001    | 0.2   | 0.877 | -0.0001         | 0.0001     |
| 50-60 km       | 0.0000  | 0.0001    | -0.1  | 0.955 | -0.0001         | 0.0001     |
| 60-70 km       | 0.0001  | 0.0001    | 0.7   | 0.503 | -0.0001         | 0.0002     |
| 70-80 km       | 0.0001  | 0.0001    | 1.3   | 0.179 | -0.0001         | 0.0003     |
| 80-90 km       | 0.0001  | 0.0001    | 0.7   | 0.493 | -0.0001         | 0.0002     |
| 90-100 km      | -0.0001 | 0.0001    | -0.9  | 0.372 | -0.0002         | 0.0001     |
| 100-200 km     | 0.0000  | (omitted) |       |       |                 |            |
| >200 km        | 0.0001  | 0.0001    | 1.2   | 0.228 | -0.0001         | 0.0003     |
| Uninhabited    | -0.0010 | 0.0000    | -37.2 | 0.000 | -0.0011         | -0.0010    |
| Constant       | 0.0013  | 0.0000    | 31.7  | 0.000 | 0.0012          | 0.0014     |
| Other controls |         |           |       |       |                 | No         |
| Std. err.      |         |           |       |       |                 | Robust     |
| R2             |         |           |       |       |                 | 0.0045     |
| N              |         |           |       |       |                 | 257,224    |

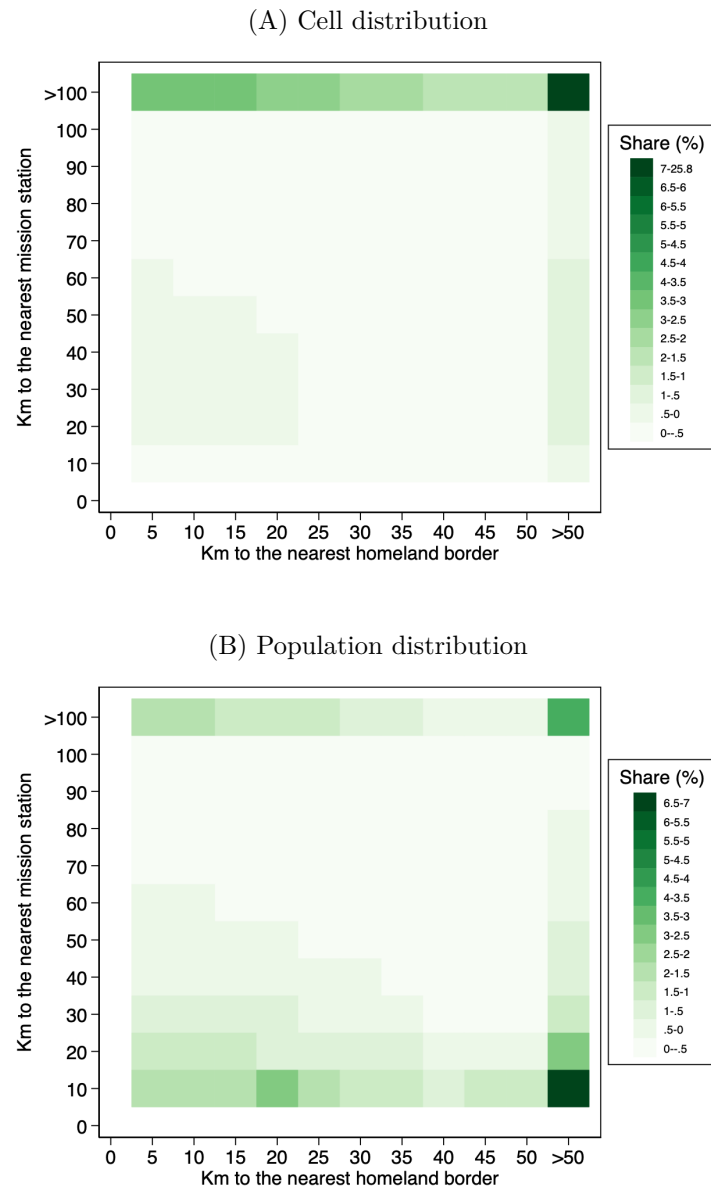
*Notes:* The table reports the results of regressing night light on the geodesic distances (grouped into 10-km bins) from the centroid of each grid cell to a homeland border. The reference area consists of grid cells located between 100 and 200 km from a homeland border. The regression model (see Equation 1 on page 11) has robust standard errors and controls for uninhabited grid cells. All variables are log-linearised except binaries.

Figure D.1: The different correlations zones



*Notes:* The map shows how we split Africa into two: *inside* the borderlands (within 50 km of a homeland border) and *outside* the borderlands (beyond 50 km from a border). Grid cells are classified as treated if a mission station is within 100 km; otherwise, they are classified as control cells. Therefore, dark green shows control grid cells inside the borderlands; light green shows treated grid cells inside the borderlands; medium green shows treated grid cells outside the borderlands; and yellow shows control grid cells outside the borderlands.

Figure D.2: Cell and population distributions by the distance to the two markers



*Note:* Total population: 1,008,625,152. Source: [Rose and Bright \(2014\)](#).

Table D.5: Night light by distance to the nearest mission station and homeland border:  
baseline

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 0-10 km         | 0.0002  | 0.0003    | 0.6  | 0.571 | -0.0005        | 0.0009   |
| 5-10 km         | 0-10 km         | 0.0000  | 0.0004    | 0.1  | 0.920 | -0.0007        | 0.0007   |
| 10-15 km        | 0-10 km         | 0.0003  | 0.0004    | 0.7  | 0.511 | -0.0005        | 0.0010   |
| 15-20 km        | 0-10 km         | 0.0013  | 0.0004    | 2.9  | 0.004 | 0.0004         | 0.0022   |
| 20-25 km        | 0-10 km         | 0.0019  | 0.0005    | 3.5  | 0.000 | 0.0008         | 0.0029   |
| 25-30 km        | 0-10 km         | 0.0022  | 0.0006    | 3.9  | 0.000 | 0.0011         | 0.0033   |
| 30-35 km        | 0-10 km         | 0.0028  | 0.0007    | 4.1  | 0.000 | 0.0015         | 0.0042   |
| 35-40 km        | 0-10 km         | 0.0021  | 0.0007    | 3.0  | 0.002 | 0.0008         | 0.0035   |
| 40-45 km        | 0-10 km         | 0.0030  | 0.0008    | 3.6  | 0.000 | 0.0014         | 0.0046   |
| 45-50 km        | 0-10 km         | 0.0043  | 0.0009    | 4.7  | 0.000 | 0.0025         | 0.0061   |
| >50 km          | 0-10 km         | 0.0044  | 0.0004    | 12.2 | 0.000 | 0.0037         | 0.0051   |
| 0-5 km          | 10-20 km        | -0.0005 | 0.0002    | -3.4 | 0.001 | -0.0009        | -0.0002  |
| 5-10 km         | 10-20 km        | -0.0004 | 0.0002    | -2.5 | 0.013 | -0.0008        | -0.0001  |
| 10-15 km        | 10-20 km        | -0.0002 | 0.0002    | -0.7 | 0.457 | -0.0006        | 0.0003   |
| 15-20 km        | 10-20 km        | -0.0004 | 0.0002    | -2.2 | 0.029 | -0.0008        | 0.0000   |
| 20-25 km        | 10-20 km        | 0.0003  | 0.0003    | 1.1  | 0.256 | -0.0002        | 0.0008   |
| 25-30 km        | 10-20 km        | 0.0004  | 0.0003    | 1.5  | 0.132 | -0.0001        | 0.0010   |
| 30-35 km        | 10-20 km        | 0.0004  | 0.0003    | 1.4  | 0.161 | -0.0002        | 0.0010   |
| 35-40 km        | 10-20 km        | 0.0010  | 0.0004    | 2.7  | 0.007 | 0.0003         | 0.0017   |
| 40-45 km        | 10-20 km        | 0.0010  | 0.0004    | 2.8  | 0.006 | 0.0003         | 0.0017   |
| 45-50 km        | 10-20 km        | 0.0007  | 0.0004    | 1.7  | 0.094 | -0.0001        | 0.0015   |
| >50 km          | 10-20 km        | 0.0009  | 0.0002    | 4.7  | 0.000 | 0.0005         | 0.0013   |
| 0-5 km          | 20-30 km        | -0.0005 | 0.0001    | -3.2 | 0.002 | -0.0007        | -0.0002  |
| 5-10 km         | 20-30 km        | -0.0004 | 0.0001    | -2.5 | 0.011 | -0.0007        | -0.0001  |
| 10-15 km        | 20-30 km        | -0.0003 | 0.0002    | -2.2 | 0.026 | -0.0007        | 0.0000   |
| 15-20 km        | 20-30 km        | -0.0005 | 0.0002    | -2.9 | 0.004 | -0.0008        | -0.0001  |
| 20-25 km        | 20-30 km        | -0.0004 | 0.0002    | -2.5 | 0.014 | -0.0008        | -0.0001  |
| 25-30 km        | 20-30 km        | -0.0005 | 0.0002    | -3.3 | 0.001 | -0.0008        | -0.0002  |
| 30-35 km        | 20-30 km        | 0.0001  | 0.0002    | 0.4  | 0.665 | -0.0004        | 0.0006   |
| 35-40 km        | 20-30 km        | -0.0004 | 0.0002    | -1.7 | 0.086 | -0.0009        | 0.0001   |
| 40-45 km        | 20-30 km        | -0.0003 | 0.0002    | -1.3 | 0.201 | -0.0007        | 0.0002   |
| 45-50 km        | 20-30 km        | -0.0004 | 0.0003    | -1.3 | 0.209 | -0.0009        | 0.0002   |
| >50 km          | 20-30 km        | 0.0001  | 0.0001    | 0.5  | 0.636 | -0.0002        | 0.0003   |
| 0-5 km          | 30-40 km        | -0.0003 | 0.0001    | -2.8 | 0.005 | -0.0005        | -0.0001  |
| 5-10 km         | 30-40 km        | -0.0005 | 0.0001    | -3.9 | 0.000 | -0.0007        | -0.0002  |
| 10-15 km        | 30-40 km        | -0.0006 | 0.0001    | -5.3 | 0.000 | -0.0008        | -0.0004  |
| 15-20 km        | 30-40 km        | -0.0006 | 0.0001    | -4.8 | 0.000 | -0.0008        | -0.0003  |
| 20-25 km        | 30-40 km        | -0.0003 | 0.0001    | -2.6 | 0.009 | -0.0006        | -0.0001  |
| 25-30 km        | 30-40 km        | -0.0006 | 0.0001    | -4.3 | 0.000 | -0.0009        | -0.0004  |
| 30-35 km        | 30-40 km        | -0.0007 | 0.0001    | -5.5 | 0.000 | -0.0009        | -0.0005  |
| 35-40 km        | 30-40 km        | -0.0005 | 0.0002    | -2.9 | 0.003 | -0.0008        | -0.0002  |
| 40-45 km        | 30-40 km        | -0.0006 | 0.0002    | -3.4 | 0.001 | -0.0009        | -0.0002  |
| 45-50 km        | 30-40 km        | -0.0007 | 0.0002    | -2.8 | 0.005 | -0.0011        | -0.0002  |
| >50 km          | 30-40 km        | 0.0002  | 0.0002    | 0.7  | 0.470 | -0.0003        | 0.0006   |
| 0-5 km          | 40-50 km        | -0.0006 | 0.0001    | -6.1 | 0.000 | -0.0008        | -0.0004  |

Table D.5: Night light by distance to the nearest mission station and homeland border:  
baseline (continued)

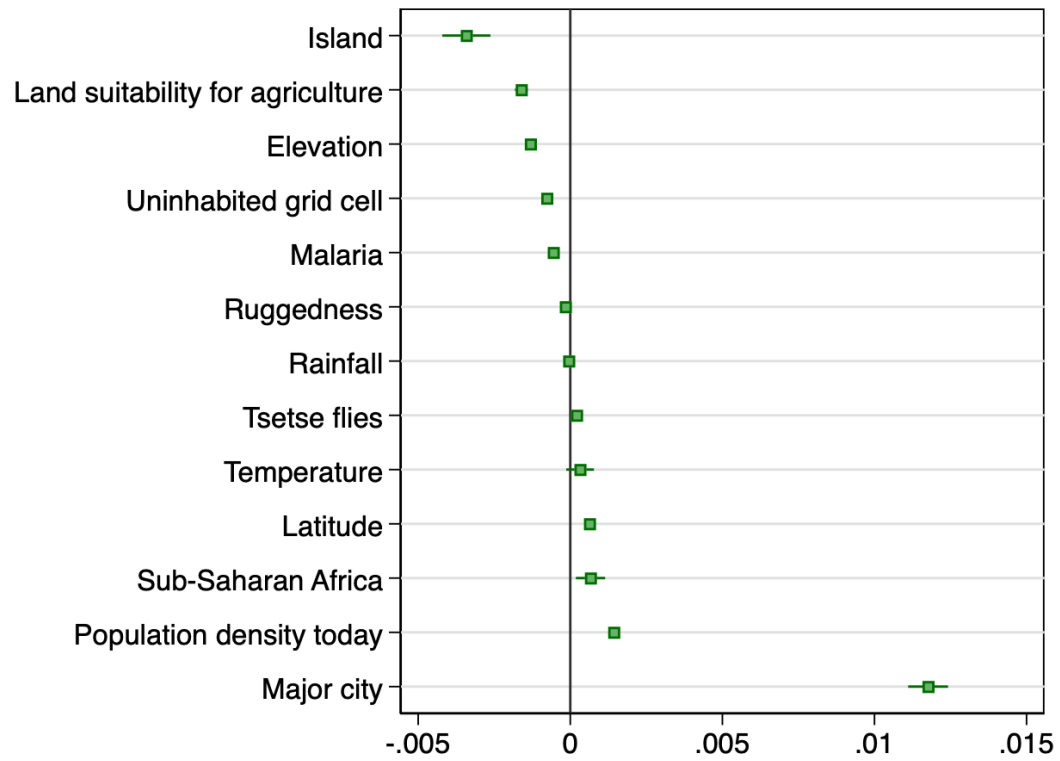
| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 5-10 km         | 40-50 km        | -0.0004 | 0.0001    | -4.2 | 0.000 | -0.0006        | -0.0002  |
| 10-15 km        | 40-50 km        | -0.0006 | 0.0001    | -6.4 | 0.000 | -0.0008        | -0.0004  |
| 15-20 km        | 40-50 km        | -0.0005 | 0.0001    | -4.8 | 0.000 | -0.0007        | -0.0003  |
| 20-25 km        | 40-50 km        | -0.0008 | 0.0001    | -6.8 | 0.000 | -0.0010        | -0.0006  |
| 25-30 km        | 40-50 km        | -0.0006 | 0.0001    | -5.9 | 0.000 | -0.0008        | -0.0004  |
| 30-35 km        | 40-50 km        | -0.0006 | 0.0001    | -4.1 | 0.000 | -0.0009        | -0.0003  |
| 35-40 km        | 40-50 km        | -0.0007 | 0.0002    | -4.1 | 0.000 | -0.0010        | -0.0004  |
| 40-45 km        | 40-50 km        | -0.0010 | 0.0001    | -6.6 | 0.000 | -0.0013        | -0.0007  |
| 45-50 km        | 40-50 km        | -0.0002 | 0.0002    | -0.9 | 0.373 | -0.0007        | 0.0003   |
| >50 km          | 40-50 km        | -0.0002 | 0.0001    | -1.4 | 0.152 | -0.0004        | 0.0001   |
| 0-5 km          | 50-60 km        | -0.0004 | 0.0001    | -5.3 | 0.000 | -0.0006        | -0.0003  |
| 5-10 km         | 50-60 km        | -0.0005 | 0.0001    | -5.7 | 0.000 | -0.0007        | -0.0004  |
| 10-15 km        | 50-60 km        | -0.0005 | 0.0001    | -4.5 | 0.000 | -0.0007        | -0.0003  |
| 15-20 km        | 50-60 km        | -0.0003 | 0.0001    | -3.1 | 0.002 | -0.0006        | -0.0001  |
| 20-25 km        | 50-60 km        | -0.0003 | 0.0001    | -2.6 | 0.009 | -0.0006        | -0.0001  |
| 25-30 km        | 50-60 km        | -0.0004 | 0.0001    | -3.6 | 0.000 | -0.0007        | -0.0002  |
| 30-35 km        | 50-60 km        | -0.0007 | 0.0001    | -6.3 | 0.000 | -0.0010        | -0.0005  |
| 35-40 km        | 50-60 km        | -0.0005 | 0.0001    | -3.8 | 0.000 | -0.0008        | -0.0003  |
| 40-45 km        | 50-60 km        | -0.0004 | 0.0002    | -2.2 | 0.029 | -0.0008        | 0.0000   |
| 45-50 km        | 50-60 km        | -0.0007 | 0.0002    | -4.3 | 0.000 | -0.0010        | -0.0004  |
| >50 km          | 50-60 km        | -0.0002 | 0.0001    | -2.4 | 0.018 | -0.0004        | 0.0000   |
| 0-5 km          | 60-70 km        | -0.0005 | 0.0001    | -5.1 | 0.000 | -0.0008        | -0.0003  |
| 5-10 km         | 60-70 km        | -0.0003 | 0.0001    | -2.9 | 0.004 | -0.0006        | -0.0001  |
| 10-15 km        | 60-70 km        | -0.0005 | 0.0001    | -5.9 | 0.000 | -0.0007        | -0.0004  |
| 15-20 km        | 60-70 km        | -0.0004 | 0.0001    | -4.2 | 0.000 | -0.0007        | -0.0002  |
| 20-25 km        | 60-70 km        | -0.0005 | 0.0001    | -5.1 | 0.000 | -0.0007        | -0.0003  |
| 25-30 km        | 60-70 km        | -0.0006 | 0.0001    | -4.1 | 0.000 | -0.0008        | -0.0003  |
| 30-35 km        | 60-70 km        | 0.0000  | 0.0002    | -0.1 | 0.953 | -0.0004        | 0.0004   |
| 35-40 km        | 60-70 km        | -0.0007 | 0.0001    | -4.8 | 0.000 | -0.0009        | -0.0004  |
| 40-45 km        | 60-70 km        | -0.0005 | 0.0001    | -3.7 | 0.000 | -0.0008        | -0.0002  |
| 45-50 km        | 60-70 km        | -0.0008 | 0.0001    | -5.7 | 0.000 | -0.0011        | -0.0005  |
| >50 km          | 60-70 km        | -0.0003 | 0.0001    | -3.9 | 0.000 | -0.0005        | -0.0002  |
| 0-5 km          | 70-80 km        | -0.0003 | 0.0001    | -2.9 | 0.004 | -0.0005        | -0.0001  |
| 5-10 km         | 70-80 km        | -0.0004 | 0.0001    | -3.7 | 0.000 | -0.0007        | -0.0002  |
| 10-15 km        | 70-80 km        | -0.0005 | 0.0001    | -4.7 | 0.000 | -0.0007        | -0.0003  |
| 15-20 km        | 70-80 km        | -0.0006 | 0.0001    | -6.8 | 0.000 | -0.0008        | -0.0004  |
| 20-25 km        | 70-80 km        | -0.0004 | 0.0001    | -3.9 | 0.000 | -0.0006        | -0.0002  |
| 25-30 km        | 70-80 km        | -0.0004 | 0.0001    | -2.4 | 0.015 | -0.0006        | -0.0001  |
| 30-35 km        | 70-80 km        | -0.0005 | 0.0001    | -4.3 | 0.000 | -0.0007        | -0.0003  |
| 35-40 km        | 70-80 km        | -0.0002 | 0.0001    | -1.7 | 0.097 | -0.0005        | 0.0000   |
| 40-45 km        | 70-80 km        | -0.0002 | 0.0002    | -1.2 | 0.232 | -0.0006        | 0.0001   |
| 45-50 km        | 70-80 km        | -0.0003 | 0.0002    | -1.5 | 0.141 | -0.0008        | 0.0001   |
| >50 km          | 70-80 km        | -0.0004 | 0.0001    | -3.8 | 0.000 | -0.0005        | -0.0002  |

Table D.5: Night light by distance to the nearest mission station and homeland border:  
baseline (continued)

| Homeland border         | Mission station | Coef.   | Std. Err. | t     | P>t   | 95% Confidence | Interval |
|-------------------------|-----------------|---------|-----------|-------|-------|----------------|----------|
| 0-5 km                  | 80-90 km        | -0.0003 | 0.0001    | -3.4  | 0.001 | -0.0005        | -0.0001  |
| 5-10 km                 | 80-90 km        | -0.0004 | 0.0001    | -4.7  | 0.000 | -0.0006        | -0.0002  |
| 10-15 km                | 80-90 km        | -0.0003 | 0.0001    | -2.9  | 0.004 | -0.0005        | -0.0001  |
| 15-20 km                | 80-90 km        | -0.0005 | 0.0001    | -4.6  | 0.000 | -0.0007        | -0.0003  |
| 20-25 km                | 80-90 km        | -0.0004 | 0.0001    | -4.2  | 0.000 | -0.0006        | -0.0002  |
| 25-30 km                | 80-90 km        | -0.0004 | 0.0001    | -3.9  | 0.000 | -0.0006        | -0.0002  |
| 30-35 km                | 80-90 km        | -0.0002 | 0.0001    | -1.9  | 0.056 | -0.0004        | 0.0000   |
| 35-40 km                | 80-90 km        | -0.0003 | 0.0002    | -2.0  | 0.050 | -0.0006        | 0.0000   |
| 40-45 km                | 80-90 km        | -0.0006 | 0.0002    | -3.4  | 0.001 | -0.0010        | -0.0003  |
| 45-50 km                | 80-90 km        | -0.0001 | 0.0002    | -0.5  | 0.626 | -0.0006        | 0.0004   |
| >50 km                  | 80-90 km        | -0.0004 | 0.0001    | -5.1  | 0.000 | -0.0006        | -0.0003  |
| 0-5 km                  | 90-100 km       | -0.0003 | 0.0001    | -3.7  | 0.000 | -0.0005        | -0.0002  |
| 5-10 km                 | 90-100 km       | -0.0005 | 0.0001    | -5.7  | 0.000 | -0.0007        | -0.0004  |
| 10-15 km                | 90-100 km       | -0.0004 | 0.0001    | -3.8  | 0.000 | -0.0005        | -0.0002  |
| 15-20 km                | 90-100 km       | -0.0003 | 0.0001    | -2.9  | 0.004 | -0.0005        | -0.0001  |
| 20-25 km                | 90-100 km       | -0.0002 | 0.0001    | -1.7  | 0.081 | -0.0004        | 0.0000   |
| 25-30 km                | 90-100 km       | -0.0005 | 0.0001    | -4.7  | 0.000 | -0.0007        | -0.0003  |
| 30-35 km                | 90-100 km       | -0.0003 | 0.0001    | -2.7  | 0.006 | -0.0005        | -0.0001  |
| 35-40 km                | 90-100 km       | -0.0005 | 0.0002    | -3.1  | 0.002 | -0.0009        | -0.0002  |
| 40-45 km                | 90-100 km       | -0.0001 | 0.0002    | -0.6  | 0.527 | -0.0005        | 0.0002   |
| 45-50 km                | 90-100 km       | -0.0008 | 0.0002    | -4.9  | 0.000 | -0.0011        | -0.0005  |
| >50 km                  | 90-100 km       | -0.0004 | 0.0001    | -3.6  | 0.000 | -0.0006        | -0.0002  |
| 0-5 km                  | >100 km         | -0.0005 | 0.0000    | -14.1 | 0.000 | -0.0005        | -0.0004  |
| 5-10 km                 | >100 km         | -0.0005 | 0.0000    | -14.1 | 0.000 | -0.0005        | -0.0004  |
| 10-15 km                | >100 km         | -0.0004 | 0.0000    | -12.2 | 0.000 | -0.0005        | -0.0003  |
| 15-20 km                | >100 km         | -0.0004 | 0.0000    | -12.0 | 0.000 | -0.0005        | -0.0003  |
| 20-25 km                | >100 km         | -0.0003 | 0.0000    | -8.7  | 0.000 | -0.0004        | -0.0002  |
| 25-30 km                | >100 km         | -0.0003 | 0.0000    | -8.8  | 0.000 | -0.0004        | -0.0003  |
| 30-35 km                | >100 km         | -0.0003 | 0.0000    | -7.5  | 0.000 | -0.0004        | -0.0002  |
| 35-40 km                | >100 km         | -0.0003 | 0.0000    | -6.2  | 0.000 | -0.0003        | -0.0002  |
| 40-45 km                | >100 km         | -0.0001 | 0.0001    | -1.2  | 0.237 | -0.0002        | 0.0001   |
| 45-50 km                | >100 km         | -0.0002 | 0.0000    | -5.0  | 0.000 | -0.0003        | -0.0001  |
| >50 km                  | >100 km         | 0.0000  | (omitted) |       |       |                |          |
| Controls                |                 |         |           |       |       |                | Yes      |
| Coloniser fixed effects |                 |         |           |       |       |                | Yes      |
| Country fixed effects   |                 |         |           |       |       |                | Yes      |
| Std. err.               |                 |         |           |       |       |                | Robust   |
| $R^2$                   |                 |         |           |       |       |                | 0.3455   |
| N                       |                 |         |           |       |       |                | 257,224  |

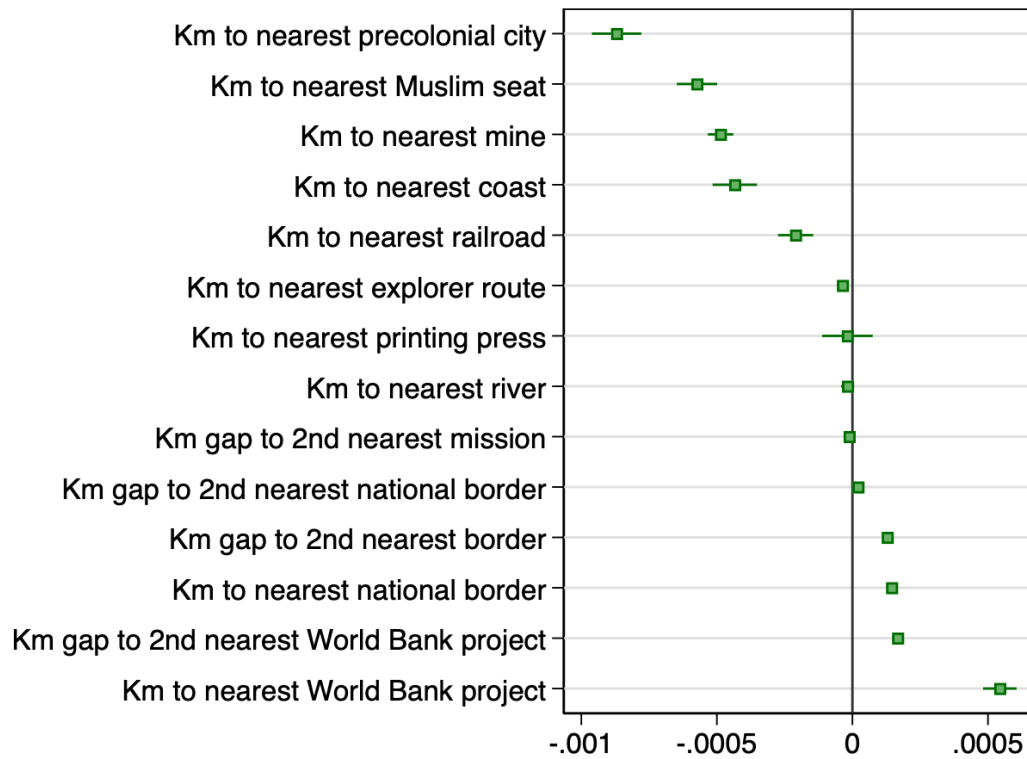
*Notes:* The regression model, displayed in Equation 2, controls for latitude, ruggedness, elevation, rainfall, temperature, land suitability for agriculture, malaria, tsetse flies, population density, uninhabited grid cells, major cities, islands, Sub-Saharan Africa, as well as the geodesic distances to coasts, rivers, railways, mines, national borders, historical explorer routes, precolonial cities, Muslim seats, Protestant printing presses, and postcolonial World Bank aid projects. Gaps between the first- and second-nearest mission stations and homeland borders are also accounted for. All variables are log-linearised except binaries. *coefplots* for the control variables and fixed effects are reported below.

Figure D.3: *Coefplot* for geography and demography controls



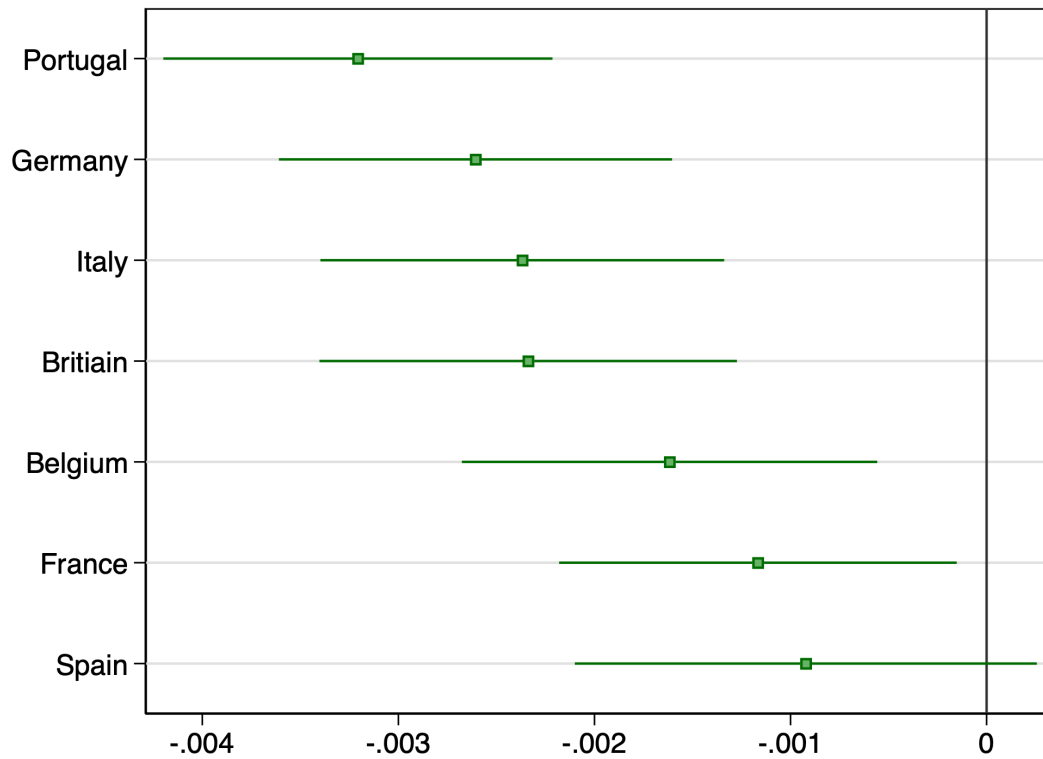
*Notes:* The *Coefplot* shows the coefficients and confidence intervals concerning the non-distance control variables used in the regression model underlying the results reported in Table D.5.

Figure D.4: *Coefplot* for distance controls



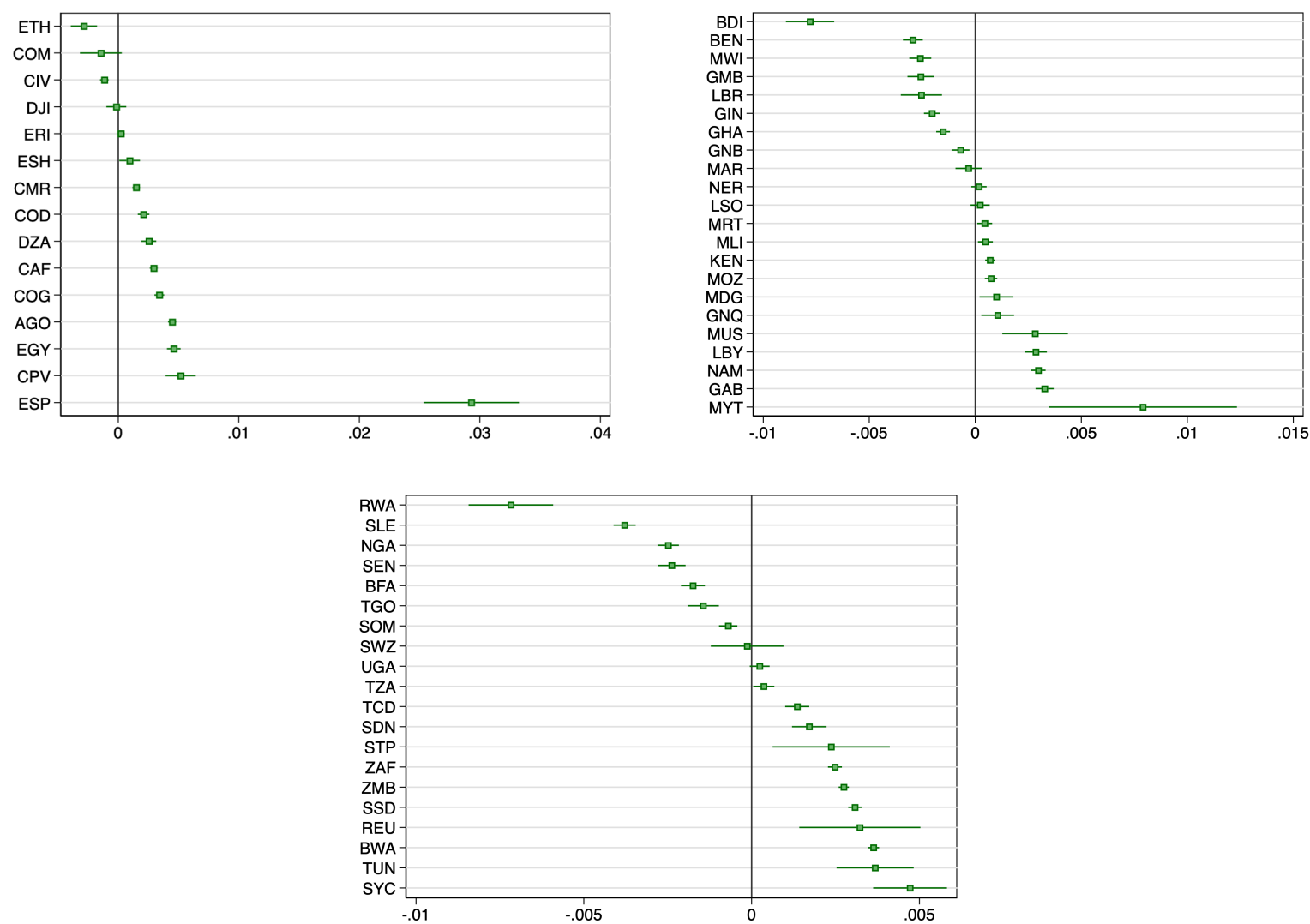
*Notes:* The *coefplot* shows the coefficients and confidence intervals concerning the distance control variables used in the regression model underlying the results reported in Table D.5.

Figure D.5: *Coefplot* for coloniser fixed effects



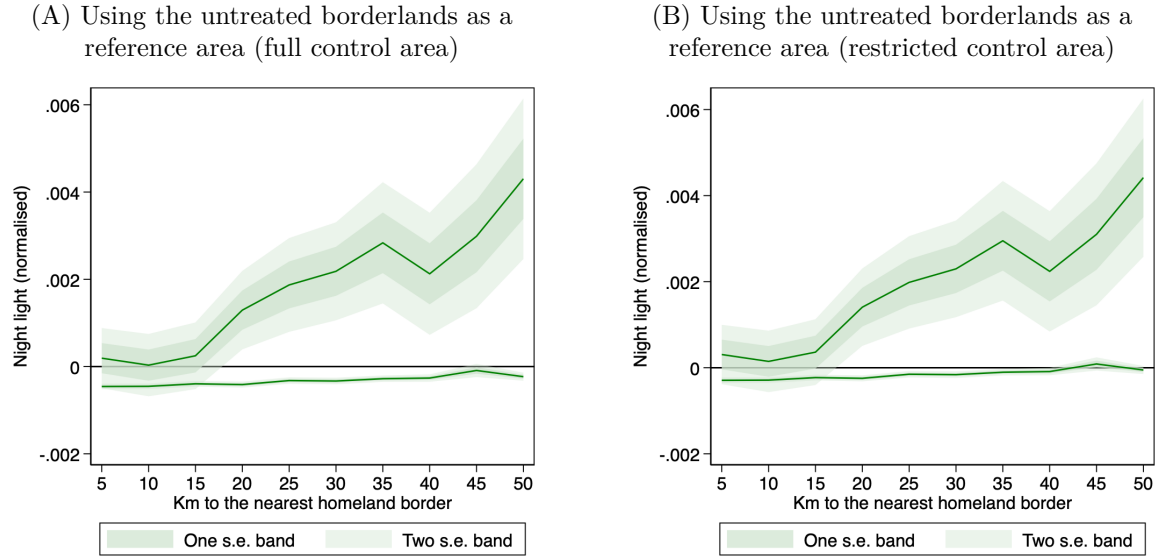
*Notes:* The *coefplot* shows the coefficients and confidence intervals concerning the coloniser fixed effects used in the regression model underlying the results reported in Table D.5. The reference category is grid cells independent of colonisers in 1913.

Figure D.6: *Coefplots* for country fixed effects



Notes: The *coefplot* shows the coefficients and confidence intervals concerning the country fixed effects used in the regression model underlying the results reported in Table D.5. The reference country is Zimbabwe.

Figure D.7: Treated and control grid cells inside and outside the borderlands



*Notes:* Coefficients and confidence intervals are taken from the regression model described in the text and reported in Table D.5) relative to a control zone situated outside the borderlands, consisting of grid cells located more than 100 km from a mission station and more than 50 km from a homeland border (Panel A) or between 100 and 200 km from a mission station and between 50 and 100 km from a homeland border (Panel B). The regression model – specified in Equation 2 – includes all controls listed in Appendix B.2, as well as country and coloniser fixed effects. Robust standard errors are used. All continuous variables are log-linearised; binary variables are expressed in levels.

## E Sensitivity results

Table E.1: Night light by distance to the nearest mission station and homeland border:  
With Conley standard errors

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 0-10 km         | 0.0002  | 0.0003    | 0.6  | 0.577 | -0.0005        | 0.0009   |
| 5-10 km         | 0-10 km         | 0.0000  | 0.0004    | 0.1  | 0.927 | -0.0007        | 0.0007   |
| 10-15 km        | 0-10 km         | 0.0002  | 0.0004    | 0.6  | 0.517 | -0.0005        | 0.0010   |
| 15-20 km        | 0-10 km         | 0.0013  | 0.0004    | 2.9  | 0.004 | 0.0004         | 0.0022   |
| 20-25 km        | 0-10 km         | 0.0019  | 0.0005    | 3.5  | 0.000 | 0.0008         | 0.0029   |
| 25-30 km        | 0-10 km         | 0.0022  | 0.0006    | 3.9  | 0.000 | 0.0011         | 0.0033   |
| 30-35 km        | 0-10 km         | 0.0028  | 0.0007    | 4.1  | 0.000 | 0.0015         | 0.0042   |
| 35-40 km        | 0-10 km         | 0.0021  | 0.0007    | 3.0  | 0.002 | 0.0008         | 0.0035   |
| 40-45 km        | 0-10 km         | 0.0030  | 0.0008    | 3.6  | 0.000 | 0.0014         | 0.0046   |
| 45-50 km        | 0-10 km         | 0.0043  | 0.0009    | 4.7  | 0.000 | 0.0025         | 0.0061   |
| >50 km          | 0-10 km         | 0.0044  | 0.0004    | 12.2 | 0.000 | 0.0037         | 0.0051   |
| 0-5 km          | 10-20 km        | -0.0005 | 0.0002    | -3.4 | 0.001 | -0.0009        | -0.0002  |
| 5-10 km         | 10-20 km        | -0.0004 | 0.0002    | -2.5 | 0.013 | -0.0008        | -0.0001  |
| 10-15 km        | 10-20 km        | -0.0002 | 0.0002    | -0.8 | 0.449 | -0.0006        | 0.0003   |
| 15-20 km        | 10-20 km        | -0.0004 | 0.0002    | -2.2 | 0.028 | -0.0008        | 0.0000   |
| 20-25 km        | 10-20 km        | 0.0003  | 0.0003    | 1.1  | 0.259 | -0.0002        | 0.0008   |
| 25-30 km        | 10-20 km        | 0.0004  | 0.0003    | 1.5  | 0.132 | -0.0001        | 0.0010   |
| 30-35 km        | 10-20 km        | 0.0004  | 0.0003    | 1.4  | 0.163 | -0.0002        | 0.0010   |
| 35-40 km        | 10-20 km        | 0.0010  | 0.0004    | 2.7  | 0.007 | 0.0003         | 0.0017   |
| 40-45 km        | 10-20 km        | 0.0010  | 0.0004    | 2.8  | 0.006 | 0.0003         | 0.0017   |
| 45-50 km        | 10-20 km        | 0.0007  | 0.0004    | 1.7  | 0.095 | -0.0001        | 0.0015   |
| >50 km          | 10-20 km        | 0.0009  | 0.0002    | 4.6  | 0.000 | 0.0005         | 0.0013   |
| 0-5 km          | 20-30 km        | -0.0005 | 0.0001    | -3.2 | 0.002 | -0.0007        | -0.0002  |
| 5-10 km         | 20-30 km        | -0.0004 | 0.0001    | -2.5 | 0.011 | -0.0007        | -0.0001  |
| 10-15 km        | 20-30 km        | -0.0004 | 0.0002    | -2.2 | 0.025 | -0.0007        | 0.0000   |
| 15-20 km        | 20-30 km        | -0.0005 | 0.0002    | -2.9 | 0.004 | -0.0008        | -0.0001  |
| 20-25 km        | 20-30 km        | -0.0004 | 0.0002    | -2.5 | 0.014 | -0.0008        | -0.0001  |
| 25-30 km        | 20-30 km        | -0.0005 | 0.0002    | -3.3 | 0.001 | -0.0008        | -0.0002  |
| 30-35 km        | 20-30 km        | 0.0001  | 0.0002    | 0.4  | 0.670 | -0.0004        | 0.0006   |
| 35-40 km        | 20-30 km        | -0.0004 | 0.0002    | -1.7 | 0.085 | -0.0009        | 0.0001   |
| 40-45 km        | 20-30 km        | -0.0003 | 0.0002    | -1.3 | 0.198 | -0.0007        | 0.0002   |
| 45-50 km        | 20-30 km        | -0.0004 | 0.0003    | -1.3 | 0.207 | -0.0009        | 0.0002   |
| >50 km          | 20-30 km        | 0.0001  | 0.0001    | 0.5  | 0.643 | -0.0002        | 0.0003   |
| 0-5 km          | 30-40 km        | -0.0003 | 0.0001    | -2.8 | 0.004 | -0.0005        | -0.0001  |
| 5-10 km         | 30-40 km        | -0.0005 | 0.0001    | -3.9 | 0.000 | -0.0007        | -0.0002  |
| 10-15 km        | 30-40 km        | -0.0006 | 0.0001    | -5.3 | 0.000 | -0.0008        | -0.0004  |
| 15-20 km        | 30-40 km        | -0.0006 | 0.0001    | -4.8 | 0.000 | -0.0008        | -0.0003  |
| 20-25 km        | 30-40 km        | -0.0003 | 0.0001    | -2.6 | 0.009 | -0.0006        | -0.0001  |
| 25-30 km        | 30-40 km        | -0.0006 | 0.0001    | -4.3 | 0.000 | -0.0009        | -0.0004  |
| 30-35 km        | 30-40 km        | -0.0007 | 0.0001    | -5.6 | 0.000 | -0.0009        | -0.0005  |
| 35-40 km        | 30-40 km        | -0.0005 | 0.0002    | -2.9 | 0.003 | -0.0008        | -0.0002  |
| 40-45 km        | 30-40 km        | -0.0006 | 0.0002    | -3.5 | 0.001 | -0.0009        | -0.0002  |
| 45-50 km        | 30-40 km        | -0.0007 | 0.0002    | -2.8 | 0.005 | -0.0011        | -0.0002  |
| >50 km          | 30-40 km        | 0.0002  | 0.0002    | 0.7  | 0.472 | -0.0003        | 0.0006   |

Table E.1: Night light by distance to the nearest mission station and homeland border:  
With Conley standard errors (continued)

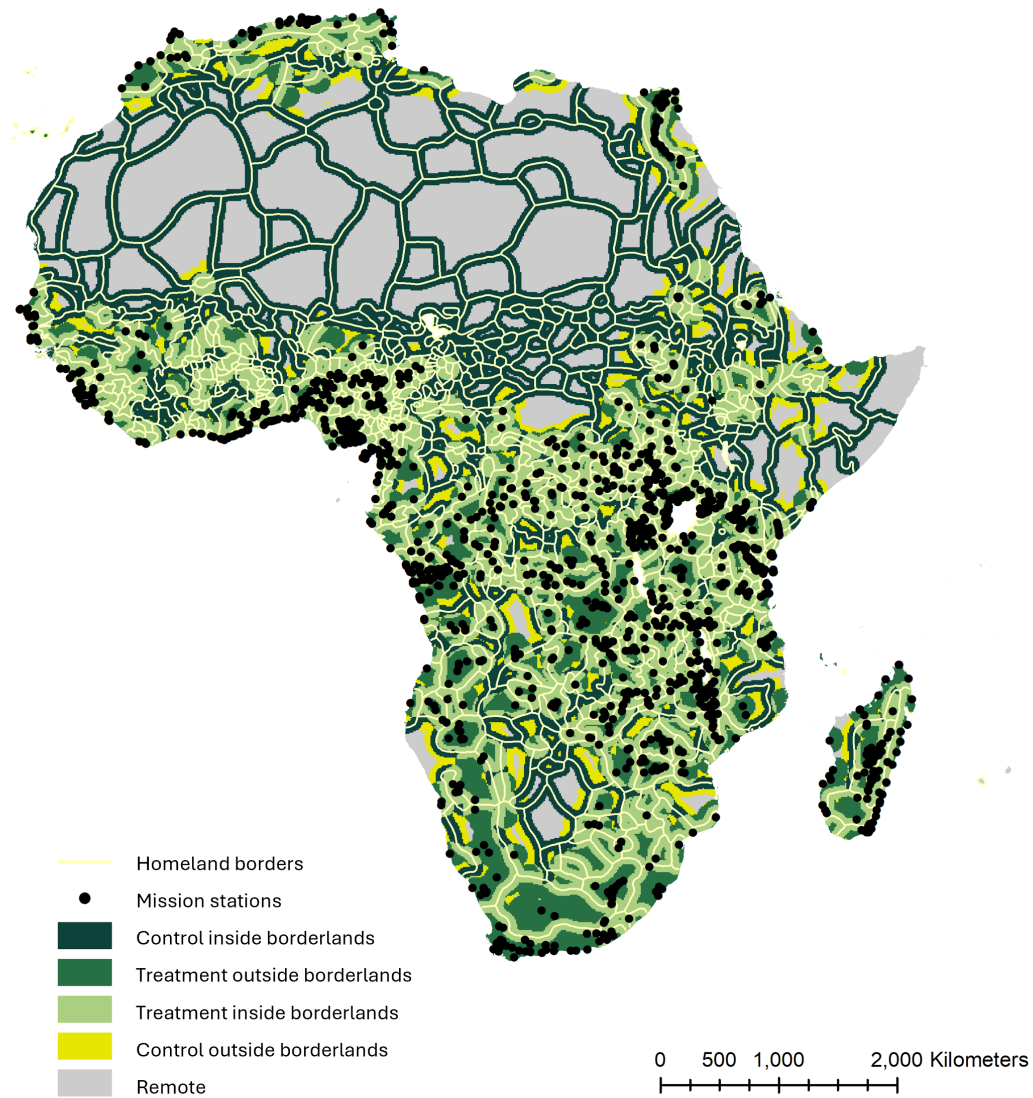
| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 40-50 km        | -0.0006 | 0.0001    | -6.1 | 0.000 | -0.0008        | -0.0004  |
| 5-10 km         | 40-50 km        | -0.0004 | 0.0001    | -4.2 | 0.000 | -0.0006        | -0.0002  |
| 10-15 km        | 40-50 km        | -0.0006 | 0.0001    | -6.4 | 0.000 | -0.0008        | -0.0004  |
| 15-20 km        | 40-50 km        | -0.0005 | 0.0001    | -4.8 | 0.000 | -0.0007        | -0.0003  |
| 20-25 km        | 40-50 km        | -0.0008 | 0.0001    | -6.8 | 0.000 | -0.0010        | -0.0006  |
| 25-30 km        | 40-50 km        | -0.0006 | 0.0001    | -5.9 | 0.000 | -0.0008        | -0.0004  |
| 30-35 km        | 40-50 km        | -0.0006 | 0.0001    | -4.1 | 0.000 | -0.0009        | -0.0003  |
| 35-40 km        | 40-50 km        | -0.0007 | 0.0002    | -4.1 | 0.000 | -0.0010        | -0.0004  |
| 40-45 km        | 40-50 km        | -0.0010 | 0.0001    | -6.6 | 0.000 | -0.0013        | -0.0007  |
| 45-50 km        | 40-50 km        | -0.0002 | 0.0002    | -0.9 | 0.369 | -0.0007        | 0.0003   |
| >50 km          | 40-50 km        | -0.0002 | 0.0001    | -1.4 | 0.151 | -0.0004        | 0.0001   |
| 0-5 km          | 50-60 km        | -0.0004 | 0.0001    | -5.3 | 0.000 | -0.0006        | -0.0003  |
| 5-10 km         | 50-60 km        | -0.0005 | 0.0001    | -5.7 | 0.000 | -0.0007        | -0.0004  |
| 10-15 km        | 50-60 km        | -0.0005 | 0.0001    | -4.5 | 0.000 | -0.0007        | -0.0003  |
| 15-20 km        | 50-60 km        | -0.0004 | 0.0001    | -3.1 | 0.002 | -0.0006        | -0.0001  |
| 20-25 km        | 50-60 km        | -0.0003 | 0.0001    | -2.6 | 0.008 | -0.0006        | -0.0001  |
| 25-30 km        | 50-60 km        | -0.0004 | 0.0001    | -3.7 | 0.000 | -0.0007        | -0.0002  |
| 30-35 km        | 50-60 km        | -0.0007 | 0.0001    | -6.3 | 0.000 | -0.0010        | -0.0005  |
| 35-40 km        | 50-60 km        | -0.0005 | 0.0001    | -3.8 | 0.000 | -0.0008        | -0.0003  |
| 40-45 km        | 50-60 km        | -0.0004 | 0.0002    | -2.2 | 0.028 | -0.0008        | 0.0000   |
| 45-50 km        | 50-60 km        | -0.0007 | 0.0002    | -4.3 | 0.000 | -0.0010        | -0.0004  |
| >50 km          | 50-60 km        | -0.0002 | 0.0001    | -2.4 | 0.018 | -0.0004        | 0.0000   |
| 0-5 km          | 60-70 km        | -0.0005 | 0.0001    | -5.1 | 0.000 | -0.0008        | -0.0003  |
| 5-10 km         | 60-70 km        | -0.0003 | 0.0001    | -2.9 | 0.004 | -0.0006        | -0.0001  |
| 10-15 km        | 60-70 km        | -0.0005 | 0.0001    | -5.9 | 0.000 | -0.0007        | -0.0004  |
| 15-20 km        | 60-70 km        | -0.0004 | 0.0001    | -4.2 | 0.000 | -0.0007        | -0.0002  |
| 20-25 km        | 60-70 km        | -0.0005 | 0.0001    | -5.1 | 0.000 | -0.0007        | -0.0003  |
| 25-30 km        | 60-70 km        | -0.0006 | 0.0001    | -4.1 | 0.000 | -0.0008        | -0.0003  |
| 30-35 km        | 60-70 km        | 0.0000  | 0.0002    | -0.1 | 0.950 | -0.0004        | 0.0004   |
| 35-40 km        | 60-70 km        | -0.0007 | 0.0001    | -4.8 | 0.000 | -0.0009        | -0.0004  |
| 40-45 km        | 60-70 km        | -0.0005 | 0.0001    | -3.7 | 0.000 | -0.0008        | -0.0002  |
| 45-50 km        | 60-70 km        | -0.0008 | 0.0001    | -5.7 | 0.000 | -0.0011        | -0.0005  |
| >50 km          | 60-70 km        | -0.0003 | 0.0001    | -3.9 | 0.000 | -0.0005        | -0.0002  |
| 0-5 km          | 70-80 km        | -0.0003 | 0.0001    | -2.9 | 0.004 | -0.0005        | -0.0001  |
| 5-10 km         | 70-80 km        | -0.0004 | 0.0001    | -3.7 | 0.000 | -0.0007        | -0.0002  |
| 10-15 km        | 70-80 km        | -0.0005 | 0.0001    | -4.7 | 0.000 | -0.0007        | -0.0003  |
| 15-20 km        | 70-80 km        | -0.0006 | 0.0001    | -6.8 | 0.000 | -0.0008        | -0.0004  |
| 20-25 km        | 70-80 km        | -0.0004 | 0.0001    | -3.9 | 0.000 | -0.0006        | -0.0002  |
| 25-30 km        | 70-80 km        | -0.0004 | 0.0001    | -2.4 | 0.015 | -0.0006        | -0.0001  |
| 30-35 km        | 70-80 km        | -0.0005 | 0.0001    | -4.3 | 0.000 | -0.0007        | -0.0003  |
| 35-40 km        | 70-80 km        | -0.0002 | 0.0001    | -1.7 | 0.096 | -0.0005        | 0.0000   |
| 40-45 km        | 70-80 km        | -0.0002 | 0.0002    | -1.2 | 0.231 | -0.0006        | 0.0001   |
| 45-50 km        | 70-80 km        | -0.0003 | 0.0002    | -1.5 | 0.140 | -0.0008        | 0.0001   |
| >50 km          | 70-80 km        | -0.0004 | 0.0001    | -3.8 | 0.000 | -0.0005        | -0.0002  |

Table E.1: Night light by distance to mission stations and homeland borders:  
With Conley standard errors (continued)

| Homeland border         | Mission station | Coef.   | Std. Err. | t     | P>t   | 95% Confidence | Interval     |
|-------------------------|-----------------|---------|-----------|-------|-------|----------------|--------------|
| 0-5 km                  | 80-90 km        | -0.0003 | 0.0001    | -3.4  | 0.001 | -0.0005        | -0.0001      |
| 5-10 km                 | 80-90 km        | -0.0004 | 0.0001    | -4.7  | 0.000 | -0.0006        | -0.0002      |
| 10-15 km                | 80-90 km        | -0.0003 | 0.0001    | -2.9  | 0.004 | -0.0005        | -0.0001      |
| 15-20 km                | 80-90 km        | -0.0005 | 0.0001    | -4.6  | 0.000 | -0.0007        | -0.0003      |
| 20-25 km                | 80-90 km        | -0.0004 | 0.0001    | -4.2  | 0.000 | -0.0006        | -0.0002      |
| 25-30 km                | 80-90 km        | -0.0004 | 0.0001    | -3.9  | 0.000 | -0.0006        | -0.0002      |
| 30-35 km                | 80-90 km        | -0.0002 | 0.0001    | -1.9  | 0.056 | -0.0004        | 0.0000       |
| 35-40 km                | 80-90 km        | -0.0003 | 0.0002    | -2.0  | 0.050 | -0.0006        | 0.0000       |
| 40-45 km                | 80-90 km        | -0.0006 | 0.0002    | -3.4  | 0.001 | -0.0010        | -0.0003      |
| 45-50 km                | 80-90 km        | -0.0001 | 0.0002    | -0.5  | 0.626 | -0.0006        | 0.0004       |
| >50 km                  | 80-90 km        | -0.0004 | 0.0001    | -5.1  | 0.000 | -0.0006        | -0.0003      |
| 0-5 km                  | 90-100 km       | -0.0004 | 0.0001    | -3.7  | 0.000 | -0.0005        | -0.0002      |
| 5-10 km                 | 90-100 km       | -0.0005 | 0.0001    | -5.7  | 0.000 | -0.0007        | -0.0004      |
| 10-15 km                | 90-100 km       | -0.0004 | 0.0001    | -3.8  | 0.000 | -0.0005        | -0.0002      |
| 15-20 km                | 90-100 km       | -0.0003 | 0.0001    | -2.9  | 0.004 | -0.0005        | -0.0001      |
| 20-25 km                | 90-100 km       | -0.0002 | 0.0001    | -1.7  | 0.080 | -0.0004        | 0.0000       |
| 25-30 km                | 90-100 km       | -0.0005 | 0.0001    | -4.7  | 0.000 | -0.0007        | -0.0003      |
| 30-35 km                | 90-100 km       | -0.0003 | 0.0001    | -2.7  | 0.006 | -0.0005        | -0.0001      |
| 35-40 km                | 90-100 km       | -0.0005 | 0.0002    | -3.1  | 0.002 | -0.0009        | -0.0002      |
| 40-45 km                | 90-100 km       | -0.0001 | 0.0002    | -0.6  | 0.526 | -0.0005        | 0.0002       |
| 45-50 km                | 90-100 km       | -0.0008 | 0.0002    | -5.0  | 0.000 | -0.0011        | -0.0005      |
| >50 km                  | 90-100 km       | -0.0004 | 0.0001    | -3.6  | 0.000 | -0.0006        | -0.0002      |
| 0-5 km                  | >100 km         | -0.0005 | 0.0000    | -14.1 | 0.000 | -0.0005        | -0.0004      |
| 5-10 km                 | >100 km         | -0.0005 | 0.0000    | -14.0 | 0.000 | -0.0005        | -0.0004      |
| 10-15 km                | >100 km         | -0.0004 | 0.0000    | -12.2 | 0.000 | -0.0005        | -0.0003      |
| 15-20 km                | >100 km         | -0.0004 | 0.0000    | -12.0 | 0.000 | -0.0005        | -0.0003      |
| 20-25 km                | >100 km         | -0.0003 | 0.0000    | -8.7  | 0.000 | -0.0004        | -0.0002      |
| 25-30 km                | >100 km         | -0.0003 | 0.0000    | -8.8  | 0.000 | -0.0004        | -0.0003      |
| 30-35 km                | >100 km         | -0.0003 | 0.0000    | -7.6  | 0.000 | -0.0004        | -0.0002      |
| 35-40 km                | >100 km         | -0.0003 | 0.0000    | -6.2  | 0.000 | -0.0003        | -0.0002      |
| 40-45 km                | >100 km         | -0.0001 | 0.0001    | -1.2  | 0.235 | -0.0002        | 0.0001       |
| 45-50 km                | >100 km         | -0.0002 | 0.0000    | -5.0  | 0.000 | -0.0003        | -0.0001      |
| >50 km                  | >100 km         | 0.0000  | (omitted) |       |       |                |              |
| Controls                |                 |         |           |       |       |                | Yes          |
| Coloniser fixed effects |                 |         |           |       |       |                | Yes          |
| Country fixed effects   |                 |         |           |       |       |                | Yes          |
| Std. err.               |                 |         |           |       |       |                | Conley (HAC) |
| $R^2$                   |                 |         |           |       |       |                | 0.2974       |
| N                       |                 |         |           |       |       |                | 257,224      |

*Notes:* The regression model, displayed in Equation 2, controls for latitude, ruggedness, elevation, rainfall, temperature, land suitability for agriculture, malaria, tsetse flies, population density, uninhabited grid cells, major cities, islands, Sub-Saharan Africa, as well as the geodesic distances to coasts, rivers, railways, mines, national borders, historical explorer routes, precolonial cities, Muslim seats, Protestant printing presses, and postcolonial World Bank aid projects. Gaps between the first- and second-nearest mission stations and homeland borders are also accounted for. The model includes country and coloniser fixed effects, as well as Conley (HAC) standard errors (Conley, 1999), with a linear decay extending up to 100 km from the centroid of each grid cell. All variables are log-linearised except binaries.

Figure E.1: Treated and control grid cells inside and outside the borderlands: restricted control zone excluding remote cells



*Notes:* The map shows how we split Africa into two: *inside* the borderlands (within 50 km of a homeland border) and *outside* the borderlands (beyond 50 km from a border). Grid cells are classified as treated if a mission station is within 100 km; otherwise, they are classified as control cells. Therefore, dark green shows control grid cells inside the borderlands; light green shows treated grid cells inside the borderlands; medium green shows treated grid cells outside the borderlands; and yellow shows control grid cells outside the borderlands. Finally, grey shows remote grid cells situated more than 200 km from a mission station and more than 100 km from a homeland border.

Table E.2: Night light by distance to the nearest mission station and homeland border:  
Restricted neutral zone

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 0-10 km         | 0.0003  | 0.0003    | 0.9  | 0.368 | -0.0004        | 0.0010   |
| 5-10 km         | 0-10 km         | 0.0002  | 0.0004    | 0.4  | 0.673 | -0.0005        | 0.0008   |
| 10-15 km        | 0-10 km         | 0.0004  | 0.0004    | 1.0  | 0.337 | -0.0004        | 0.0011   |
| 15-20 km        | 0-10 km         | 0.0014  | 0.0004    | 3.1  | 0.002 | 0.0005         | 0.0023   |
| 20-25 km        | 0-10 km         | 0.0020  | 0.0005    | 3.7  | 0.000 | 0.0009         | 0.0030   |
| 25-30 km        | 0-10 km         | 0.0023  | 0.0006    | 4.1  | 0.000 | 0.0012         | 0.0034   |
| 30-35 km        | 0-10 km         | 0.0030  | 0.0007    | 4.3  | 0.000 | 0.0016         | 0.0043   |
| 35-40 km        | 0-10 km         | 0.0022  | 0.0007    | 3.2  | 0.001 | 0.0009         | 0.0036   |
| 40-45 km        | 0-10 km         | 0.0031  | 0.0008    | 3.8  | 0.000 | 0.0015         | 0.0047   |
| 45-50 km        | 0-10 km         | 0.0044  | 0.0009    | 4.8  | 0.000 | 0.0026         | 0.0062   |
| >50 km          | 0-10 km         | 0.0045  | 0.0004    | 12.6 | 0.000 | 0.0038         | 0.0052   |
| 0-5 km          | 10-20 km        | -0.0004 | 0.0002    | -2.7 | 0.007 | -0.0007        | -0.0001  |
| 5-10 km         | 10-20 km        | -0.0003 | 0.0002    | -1.8 | 0.073 | -0.0006        | 0.0000   |
| 10-15 km        | 10-20 km        | 0.0000  | 0.0002    | -0.2 | 0.855 | -0.0004        | 0.0004   |
| 15-20 km        | 10-20 km        | -0.0003 | 0.0002    | -1.6 | 0.116 | -0.0007        | 0.0001   |
| 20-25 km        | 10-20 km        | 0.0004  | 0.0003    | 1.6  | 0.110 | -0.0001        | 0.0009   |
| 25-30 km        | 10-20 km        | 0.0005  | 0.0003    | 1.9  | 0.055 | 0.0000         | 0.0011   |
| 30-35 km        | 10-20 km        | 0.0005  | 0.0003    | 1.8  | 0.070 | 0.0000         | 0.0011   |
| 35-40 km        | 10-20 km        | 0.0011  | 0.0004    | 3.0  | 0.003 | 0.0004         | 0.0019   |
| 40-45 km        | 10-20 km        | 0.0011  | 0.0004    | 3.1  | 0.002 | 0.0004         | 0.0018   |
| 45-50 km        | 10-20 km        | 0.0008  | 0.0004    | 2.0  | 0.049 | 0.0000         | 0.0016   |
| >50 km          | 10-20 km        | 0.0010  | 0.0002    | 5.3  | 0.000 | 0.0006         | 0.0014   |
| 0-5 km          | 20-30 km        | -0.0003 | 0.0001    | -2.3 | 0.020 | -0.0006        | -0.0001  |
| 5-10 km         | 20-30 km        | -0.0003 | 0.0001    | -1.7 | 0.085 | -0.0005        | 0.0000   |
| 10-15 km        | 20-30 km        | -0.0002 | 0.0002    | -1.5 | 0.142 | -0.0005        | 0.0001   |
| 15-20 km        | 20-30 km        | -0.0004 | 0.0002    | -2.1 | 0.033 | -0.0007        | 0.0000   |
| 20-25 km        | 20-30 km        | -0.0003 | 0.0002    | -1.8 | 0.074 | -0.0007        | 0.0000   |
| 25-30 km        | 20-30 km        | -0.0004 | 0.0002    | -2.5 | 0.011 | -0.0007        | -0.0001  |
| 30-35 km        | 20-30 km        | 0.0002  | 0.0002    | 0.9  | 0.357 | -0.0003        | 0.0007   |
| 35-40 km        | 20-30 km        | -0.0003 | 0.0002    | -1.2 | 0.216 | -0.0008        | 0.0002   |
| 40-45 km        | 20-30 km        | -0.0002 | 0.0002    | -0.8 | 0.451 | -0.0006        | 0.0003   |
| 45-50 km        | 20-30 km        | -0.0002 | 0.0003    | -0.8 | 0.396 | -0.0008        | 0.0003   |
| >50 km          | 20-30 km        | 0.0002  | 0.0001    | 1.4  | 0.155 | -0.0001        | 0.0004   |
| 0-5 km          | 30-40 km        | -0.0002 | 0.0001    | -1.7 | 0.081 | -0.0004        | 0.0000   |
| 5-10 km         | 30-40 km        | -0.0003 | 0.0001    | -2.9 | 0.004 | -0.0006        | -0.0001  |
| 10-15 km        | 30-40 km        | -0.0005 | 0.0001    | -4.2 | 0.000 | -0.0007        | -0.0002  |
| 15-20 km        | 30-40 km        | -0.0004 | 0.0001    | -3.8 | 0.000 | -0.0007        | -0.0002  |
| 20-25 km        | 30-40 km        | -0.0002 | 0.0001    | -1.7 | 0.091 | -0.0005        | 0.0000   |
| 25-30 km        | 30-40 km        | -0.0005 | 0.0001    | -3.5 | 0.000 | -0.0008        | -0.0002  |
| 30-35 km        | 30-40 km        | -0.0006 | 0.0001    | -4.6 | 0.000 | -0.0008        | -0.0003  |
| 35-40 km        | 30-40 km        | -0.0004 | 0.0002    | -2.2 | 0.027 | -0.0007        | 0.0000   |
| 40-45 km        | 30-40 km        | -0.0004 | 0.0002    | -2.7 | 0.007 | -0.0008        | -0.0001  |
| 45-50 km        | 30-40 km        | -0.0005 | 0.0002    | -2.3 | 0.023 | -0.0010        | -0.0001  |
| >50 km          | 30-40 km        | 0.0003  | 0.0002    | 1.2  | 0.215 | -0.0002        | 0.0008   |

Table E.2: Night light by distance to the nearest mission station and homeland border:  
Restricted neutral zone (continued)

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 40-50 km        | -0.0005 | 0.0001    | -4.8 | 0.000 | -0.0007        | -0.0003  |
| 5-10 km         | 40-50 km        | -0.0003 | 0.0001    | -2.9 | 0.003 | -0.0005        | -0.0001  |
| 10-15 km        | 40-50 km        | -0.0005 | 0.0001    | -5.1 | 0.000 | -0.0006        | -0.0003  |
| 15-20 km        | 40-50 km        | -0.0004 | 0.0001    | -3.6 | 0.000 | -0.0006        | -0.0002  |
| 20-25 km        | 40-50 km        | -0.0007 | 0.0001    | -5.7 | 0.000 | -0.0009        | -0.0004  |
| 25-30 km        | 40-50 km        | -0.0005 | 0.0001    | -4.7 | 0.000 | -0.0007        | -0.0003  |
| 30-35 km        | 40-50 km        | -0.0005 | 0.0001    | -3.3 | 0.001 | -0.0008        | -0.0002  |
| 35-40 km        | 40-50 km        | -0.0005 | 0.0002    | -3.4 | 0.001 | -0.0009        | -0.0002  |
| 40-45 km        | 40-50 km        | -0.0008 | 0.0001    | -5.8 | 0.000 | -0.0011        | -0.0006  |
| 45-50 km        | 40-50 km        | -0.0001 | 0.0002    | -0.4 | 0.707 | -0.0006        | 0.0004   |
| >50 km          | 40-50 km        | 0.0000  | 0.0001    | -0.2 | 0.806 | -0.0002        | 0.0002   |
| 0-5 km          | 50-60 km        | -0.0003 | 0.0001    | -3.8 | 0.000 | -0.0005        | -0.0002  |
| 5-10 km         | 50-60 km        | -0.0004 | 0.0001    | -4.4 | 0.000 | -0.0006        | -0.0002  |
| 10-15 km        | 50-60 km        | -0.0004 | 0.0001    | -3.3 | 0.001 | -0.0006        | -0.0001  |
| 15-20 km        | 50-60 km        | -0.0002 | 0.0001    | -2.0 | 0.050 | -0.0004        | 0.0000   |
| 20-25 km        | 50-60 km        | -0.0002 | 0.0001    | -1.6 | 0.107 | -0.0004        | 0.0000   |
| 25-30 km        | 50-60 km        | -0.0003 | 0.0001    | -2.6 | 0.009 | -0.0006        | -0.0001  |
| 30-35 km        | 50-60 km        | -0.0006 | 0.0001    | -5.2 | 0.000 | -0.0008        | -0.0004  |
| 35-40 km        | 50-60 km        | -0.0004 | 0.0001    | -2.9 | 0.003 | -0.0007        | -0.0001  |
| 40-45 km        | 50-60 km        | -0.0003 | 0.0002    | -1.5 | 0.127 | -0.0007        | 0.0001   |
| 45-50 km        | 50-60 km        | -0.0006 | 0.0002    | -3.5 | 0.000 | -0.0009        | -0.0002  |
| >50 km          | 50-60 km        | -0.0001 | 0.0001    | -1.0 | 0.312 | -0.0003        | 0.0001   |
| 0-5 km          | 60-70 km        | -0.0004 | 0.0001    | -3.9 | 0.000 | -0.0006        | -0.0002  |
| 5-10 km         | 60-70 km        | -0.0002 | 0.0001    | -1.8 | 0.069 | -0.0004        | 0.0000   |
| 10-15 km        | 60-70 km        | -0.0004 | 0.0001    | -4.5 | 0.000 | -0.0006        | -0.0002  |
| 15-20 km        | 60-70 km        | -0.0003 | 0.0001    | -3.0 | 0.003 | -0.0005        | -0.0001  |
| 20-25 km        | 60-70 km        | -0.0004 | 0.0001    | -3.9 | 0.000 | -0.0006        | -0.0002  |
| 25-30 km        | 60-70 km        | -0.0004 | 0.0001    | -3.1 | 0.002 | -0.0007        | -0.0002  |
| 30-35 km        | 60-70 km        | 0.0001  | 0.0002    | 0.6  | 0.532 | -0.0002        | 0.0005   |
| 35-40 km        | 60-70 km        | -0.0005 | 0.0001    | -3.8 | 0.000 | -0.0008        | -0.0003  |
| 40-45 km        | 60-70 km        | -0.0004 | 0.0001    | -2.7 | 0.006 | -0.0006        | -0.0001  |
| 45-50 km        | 60-70 km        | -0.0007 | 0.0001    | -4.8 | 0.000 | -0.0010        | -0.0004  |
| >50 km          | 60-70 km        | -0.0002 | 0.0001    | -2.4 | 0.014 | -0.0004        | 0.0000   |
| 0-5 km          | 70-80 km        | -0.0002 | 0.0001    | -1.7 | 0.090 | -0.0004        | 0.0000   |
| 5-10 km         | 70-80 km        | -0.0003 | 0.0001    | -2.6 | 0.010 | -0.0005        | -0.0001  |
| 10-15 km        | 70-80 km        | -0.0004 | 0.0001    | -3.5 | 0.000 | -0.0006        | -0.0002  |
| 15-20 km        | 70-80 km        | -0.0005 | 0.0001    | -5.3 | 0.000 | -0.0006        | -0.0003  |
| 20-25 km        | 70-80 km        | -0.0003 | 0.0001    | -2.6 | 0.010 | -0.0004        | -0.0001  |
| 25-30 km        | 70-80 km        | -0.0002 | 0.0001    | -1.5 | 0.122 | -0.0005        | 0.0001   |
| 30-35 km        | 70-80 km        | -0.0003 | 0.0001    | -3.1 | 0.002 | -0.0006        | -0.0001  |
| 35-40 km        | 70-80 km        | -0.0001 | 0.0001    | -0.8 | 0.425 | -0.0004        | 0.0002   |
| 40-45 km        | 70-80 km        | -0.0001 | 0.0002    | -0.5 | 0.625 | -0.0004        | 0.0003   |
| 45-50 km        | 70-80 km        | -0.0002 | 0.0002    | -0.9 | 0.363 | -0.0007        | 0.0002   |
| >50 km          | 70-80 km        | -0.0002 | 0.0001    | -2.4 | 0.016 | -0.0004        | 0.0000   |

Table E.2: Night light by distance to mission stations and homeland borders:  
Restricted neutral zone (continued)

| Homeland border         | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-------------------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km                  | 80-90 km        | -0.0002 | 0.0001    | -1.9 | 0.052 | -0.0003        | 0.0000   |
| 5-10 km                 | 80-90 km        | -0.0003 | 0.0001    | -3.2 | 0.001 | -0.0004        | -0.0001  |
| 10-15 km                | 80-90 km        | -0.0002 | 0.0001    | -1.6 | 0.119 | -0.0004        | 0.0000   |
| 15-20 km                | 80-90 km        | -0.0003 | 0.0001    | -3.3 | 0.001 | -0.0005        | -0.0001  |
| 20-25 km                | 80-90 km        | -0.0003 | 0.0001    | -2.9 | 0.003 | -0.0005        | -0.0001  |
| 25-30 km                | 80-90 km        | -0.0003 | 0.0001    | -2.6 | 0.009 | -0.0005        | -0.0001  |
| 30-35 km                | 80-90 km        | -0.0001 | 0.0001    | -0.7 | 0.475 | -0.0003        | 0.0001   |
| 35-40 km                | 80-90 km        | -0.0002 | 0.0002    | -1.1 | 0.252 | -0.0005        | 0.0001   |
| 40-45 km                | 80-90 km        | -0.0005 | 0.0002    | -2.6 | 0.009 | -0.0008        | -0.0001  |
| 45-50 km                | 80-90 km        | 0.0000  | 0.0002    | 0.1  | 0.955 | -0.0005        | 0.0005   |
| >50 km                  | 80-90 km        | -0.0003 | 0.0001    | -3.6 | 0.000 | -0.0005        | -0.0001  |
| 0-5 km                  | 90-100 km       | -0.0002 | 0.0001    | -2.3 | 0.021 | -0.0004        | 0.0000   |
| 5-10 km                 | 90-100 km       | -0.0004 | 0.0001    | -4.4 | 0.000 | -0.0006        | -0.0002  |
| 10-15 km                | 90-100 km       | -0.0002 | 0.0001    | -2.4 | 0.016 | -0.0004        | 0.0000   |
| 15-20 km                | 90-100 km       | -0.0001 | 0.0001    | -1.5 | 0.145 | -0.0003        | 0.0000   |
| 20-25 km                | 90-100 km       | -0.0001 | 0.0001    | -0.5 | 0.616 | -0.0003        | 0.0002   |
| 25-30 km                | 90-100 km       | -0.0004 | 0.0001    | -3.5 | 0.000 | -0.0006        | -0.0002  |
| 30-35 km                | 90-100 km       | -0.0002 | 0.0001    | -1.5 | 0.140 | -0.0004        | 0.0001   |
| 35-40 km                | 90-100 km       | -0.0004 | 0.0002    | -2.3 | 0.020 | -0.0007        | -0.0001  |
| 40-45 km                | 90-100 km       | 0.0000  | 0.0002    | 0.1  | 0.926 | -0.0003        | 0.0004   |
| 45-50 km                | 90-100 km       | -0.0007 | 0.0002    | -4.1 | 0.000 | -0.0010        | -0.0004  |
| >50 km                  | 90-100 km       | -0.0003 | 0.0001    | -2.5 | 0.013 | -0.0005        | -0.0001  |
| 0-5 km                  | 100-200 km      | -0.0003 | 0.0000    | -8.9 | 0.000 | -0.0004        | -0.0002  |
| 5-10 km                 | 100-200 km      | -0.0003 | 0.0000    | -8.8 | 0.000 | -0.0004        | -0.0002  |
| 10-15 km                | 100-200 km      | -0.0002 | 0.0000    | -6.9 | 0.000 | -0.0003        | -0.0002  |
| 15-20 km                | 100-200 km      | -0.0002 | 0.0000    | -7.0 | 0.000 | -0.0003        | -0.0002  |
| 20-25 km                | 100-200 km      | -0.0001 | 0.0000    | -4.0 | 0.000 | -0.0002        | -0.0001  |
| 25-30 km                | 100-200 km      | -0.0002 | 0.0000    | -4.2 | 0.000 | -0.0002        | -0.0001  |
| 30-35 km                | 100-200 km      | -0.0001 | 0.0000    | -2.7 | 0.006 | -0.0002        | 0.0000   |
| 35-40 km                | 100-200 km      | -0.0001 | 0.0000    | -2.0 | 0.042 | -0.0002        | 0.0000   |
| 40-45 km                | 100-200 km      | 0.0001  | 0.0001    | 1.2  | 0.246 | -0.0001        | 0.0002   |
| 45-50 km                | 100-200 km      | -0.0001 | 0.0000    | -1.1 | 0.264 | -0.0001        | 0.0000   |
| >50 km                  | 100-200 km      | 0.0000  | (omitted) |      |       |                |          |
| >100 km                 | >200 km         | 0.0000  | 0.0000    | -0.9 | 0.352 | 0.0000         | 0.0000   |
| Controls                |                 |         |           |      |       |                | Yes      |
| Coloniser fixed effects |                 |         |           |      |       |                | Yes      |
| Country fixed effects   |                 |         |           |      |       |                | Yes      |
| Std. err.               |                 |         |           |      |       |                | Robust   |
| $R^2$                   |                 |         |           |      |       |                | 0.3459   |
| N                       |                 |         |           |      |       |                | 257,224  |

*Notes:* The regression model, displayed in Equation 2, controls for latitude, ruggedness, elevation, rainfall, temperature, land suitability for agriculture, malaria, tsetse flies, population density, uninhabited grid cells, major cities, islands, Sub-Saharan Africa, as well as the geodesic distances to coasts, rivers, railways, mines, national borders, historical explorer routes, precolonial cities, Muslim seats, Protestant printing presses, and postcolonial World Bank aid projects. Gaps between the first- and second-nearest mission stations and homeland borders are also accounted for. All variables are log-linearised except binaries. The control zone is restricted to grid cells located between 100 and 200 km from a mission station and between 50 and 100 km from a homeland border.

Table E.3: Night light by distance to the nearest mission station and homeland border:  
Including only Sub-Saharan Africa

| Homeland border | Mission station | Coef.   | Std. Err. | t     | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|-------|-------|----------------|----------|
| 0-5 km          | 0-10 km         | 0.0000  | 0.0003    | -0.1  | 0.926 | -0.0005        | 0.0005   |
| 5-10 km         | 0-10 km         | -0.0001 | 0.0003    | -0.2  | 0.827 | -0.0006        | 0.0005   |
| 10-15 km        | 0-10 km         | -0.0001 | 0.0003    | -0.2  | 0.814 | -0.0006        | 0.0005   |
| 15-20 km        | 0-10 km         | 0.0005  | 0.0004    | 1.3   | 0.189 | -0.0002        | 0.0012   |
| 20-25 km        | 0-10 km         | 0.0004  | 0.0004    | 1.1   | 0.255 | -0.0003        | 0.0011   |
| 25-30 km        | 0-10 km         | 0.0004  | 0.0003    | 1.2   | 0.238 | -0.0002        | 0.0010   |
| 30-35 km        | 0-10 km         | 0.0000  | 0.0004    | 0.1   | 0.945 | -0.0007        | 0.0007   |
| 35-40 km        | 0-10 km         | 0.0006  | 0.0005    | 1.2   | 0.235 | -0.0004        | 0.0016   |
| 40-45 km        | 0-10 km         | 0.0009  | 0.0006    | 1.6   | 0.104 | -0.0002        | 0.0021   |
| 45-50 km        | 0-10 km         | 0.0018  | 0.0007    | 2.6   | 0.008 | 0.0005         | 0.0031   |
| >50 km          | 0-10 km         | 0.0025  | 0.0003    | 9.0   | 0.000 | 0.0020         | 0.0031   |
| 0-5 km          | 10-20 km        | -0.0006 | 0.0001    | -4.9  | 0.000 | -0.0008        | -0.0004  |
| 5-10 km         | 10-20 km        | -0.0004 | 0.0001    | -2.8  | 0.006 | -0.0007        | -0.0001  |
| 10-15 km        | 10-20 km        | -0.0004 | 0.0002    | -2.2  | 0.030 | -0.0007        | 0.0000   |
| 15-20 km        | 10-20 km        | -0.0004 | 0.0002    | -2.7  | 0.008 | -0.0008        | -0.0001  |
| 20-25 km        | 10-20 km        | -0.0003 | 0.0002    | -2.0  | 0.043 | -0.0007        | 0.0000   |
| 25-30 km        | 10-20 km        | 0.0001  | 0.0002    | 0.3   | 0.777 | -0.0004        | 0.0006   |
| 30-35 km        | 10-20 km        | -0.0002 | 0.0002    | -1.2  | 0.243 | -0.0007        | 0.0002   |
| 35-40 km        | 10-20 km        | -0.0001 | 0.0003    | -0.2  | 0.849 | -0.0006        | 0.0005   |
| 40-45 km        | 10-20 km        | 0.0001  | 0.0003    | 0.3   | 0.775 | -0.0005        | 0.0007   |
| 45-50 km        | 10-20 km        | -0.0003 | 0.0003    | -1.0  | 0.308 | -0.0008        | 0.0003   |
| >50 km          | 10-20 km        | -0.0005 | 0.0001    | -4.7  | 0.000 | -0.0007        | -0.0003  |
| 0-5 km          | 20-30 km        | -0.0004 | 0.0001    | -2.8  | 0.006 | -0.0006        | -0.0001  |
| 5-10 km         | 20-30 km        | -0.0004 | 0.0001    | -2.9  | 0.003 | -0.0006        | -0.0001  |
| 10-15 km        | 20-30 km        | -0.0005 | 0.0001    | -3.4  | 0.001 | -0.0007        | -0.0002  |
| 15-20 km        | 20-30 km        | -0.0006 | 0.0001    | -4.8  | 0.000 | -0.0008        | -0.0003  |
| 20-25 km        | 20-30 km        | -0.0004 | 0.0002    | -2.2  | 0.028 | -0.0007        | 0.0000   |
| 25-30 km        | 20-30 km        | -0.0006 | 0.0001    | -4.8  | 0.000 | -0.0009        | -0.0004  |
| 30-35 km        | 20-30 km        | -0.0001 | 0.0002    | -0.7  | 0.503 | -0.0005        | 0.0003   |
| 35-40 km        | 20-30 km        | -0.0007 | 0.0002    | -3.9  | 0.000 | -0.0010        | -0.0003  |
| 40-45 km        | 20-30 km        | -0.0007 | 0.0001    | -4.7  | 0.000 | -0.0010        | -0.0004  |
| 45-50 km        | 20-30 km        | -0.0008 | 0.0001    | -6.0  | 0.000 | -0.0011        | -0.0005  |
| >50 km          | 20-30 km        | -0.0008 | 0.0001    | -12.0 | 0.000 | -0.0010        | -0.0007  |
| 0-5 km          | 30-40 km        | -0.0004 | 0.0001    | -4.8  | 0.000 | -0.0006        | -0.0003  |
| 5-10 km         | 30-40 km        | -0.0005 | 0.0001    | -4.9  | 0.000 | -0.0007        | -0.0003  |
| 10-15 km        | 30-40 km        | -0.0006 | 0.0001    | -6.6  | 0.000 | -0.0008        | -0.0004  |
| 15-20 km        | 30-40 km        | -0.0006 | 0.0001    | -6.1  | 0.000 | -0.0007        | -0.0004  |
| 20-25 km        | 30-40 km        | -0.0004 | 0.0001    | -3.6  | 0.000 | -0.0006        | -0.0002  |
| 25-30 km        | 30-40 km        | -0.0007 | 0.0001    | -6.1  | 0.000 | -0.0009        | -0.0005  |
| 30-35 km        | 30-40 km        | -0.0006 | 0.0001    | -6.1  | 0.000 | -0.0008        | -0.0004  |
| 35-40 km        | 30-40 km        | -0.0006 | 0.0001    | -4.5  | 0.000 | -0.0009        | -0.0003  |
| 40-45 km        | 30-40 km        | -0.0007 | 0.0001    | -6.7  | 0.000 | -0.0009        | -0.0005  |
| 45-50 km        | 30-40 km        | -0.0009 | 0.0001    | -7.9  | 0.000 | -0.0011        | -0.0006  |
| >50 km          | 30-40 km        | -0.0009 | 0.0001    | -14.6 | 0.000 | -0.0010        | -0.0008  |

Table E.3: Night light by distance to the nearest mission station and homeland border:  
Including only Sub-Saharan Africa (continued)

| Homeland border | Mission station | Coef.   | Std. Err. | t     | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|-------|-------|----------------|----------|
| 0-5 km          | 40-50 km        | -0.0006 | 0.0001    | -9.1  | 0.000 | -0.0008        | -0.0005  |
| 5-10 km         | 40-50 km        | -0.0006 | 0.0001    | -10.0 | 0.000 | -0.0007        | -0.0005  |
| 10-15 km        | 40-50 km        | -0.0006 | 0.0001    | -10.0 | 0.000 | -0.0007        | -0.0005  |
| 15-20 km        | 40-50 km        | -0.0005 | 0.0001    | -7.0  | 0.000 | -0.0007        | -0.0004  |
| 20-25 km        | 40-50 km        | -0.0007 | 0.0001    | -8.0  | 0.000 | -0.0008        | -0.0005  |
| 25-30 km        | 40-50 km        | -0.0006 | 0.0001    | -12.0 | 0.000 | -0.0007        | -0.0005  |
| 30-35 km        | 40-50 km        | -0.0006 | 0.0001    | -6.5  | 0.000 | -0.0008        | -0.0004  |
| 35-40 km        | 40-50 km        | -0.0007 | 0.0001    | -5.3  | 0.000 | -0.0009        | -0.0004  |
| 40-45 km        | 40-50 km        | -0.0008 | 0.0001    | -8.9  | 0.000 | -0.0010        | -0.0006  |
| 45-50 km        | 40-50 km        | -0.0005 | 0.0001    | -3.5  | 0.000 | -0.0007        | -0.0002  |
| >50 km          | 40-50 km        | -0.0007 | 0.0001    | -14.0 | 0.000 | -0.0008        | -0.0006  |
| 0-5 km          | 50-60 km        | -0.0005 | 0.0001    | -8.1  | 0.000 | -0.0006        | -0.0004  |
| 5-10 km         | 50-60 km        | -0.0006 | 0.0001    | -7.7  | 0.000 | -0.0007        | -0.0004  |
| 10-15 km        | 50-60 km        | -0.0006 | 0.0001    | -6.8  | 0.000 | -0.0007        | -0.0004  |
| 15-20 km        | 50-60 km        | -0.0005 | 0.0001    | -6.9  | 0.000 | -0.0007        | -0.0004  |
| 20-25 km        | 50-60 km        | -0.0004 | 0.0001    | -4.0  | 0.000 | -0.0006        | -0.0002  |
| 25-30 km        | 50-60 km        | -0.0005 | 0.0001    | -5.8  | 0.000 | -0.0007        | -0.0003  |
| 30-35 km        | 50-60 km        | -0.0007 | 0.0001    | -11.4 | 0.000 | -0.0008        | -0.0005  |
| 35-40 km        | 50-60 km        | -0.0004 | 0.0001    | -3.4  | 0.001 | -0.0006        | -0.0002  |
| 40-45 km        | 50-60 km        | -0.0005 | 0.0002    | -3.4  | 0.001 | -0.0008        | -0.0002  |
| 45-50 km        | 50-60 km        | -0.0007 | 0.0001    | -8.5  | 0.000 | -0.0009        | -0.0005  |
| >50 km          | 50-60 km        | -0.0006 | 0.0001    | -11.2 | 0.000 | -0.0007        | -0.0005  |
| 0-5 km          | 60-70 km        | -0.0005 | 0.0001    | -8.1  | 0.000 | -0.0007        | -0.0004  |
| 5-10 km         | 60-70 km        | -0.0005 | 0.0001    | -5.7  | 0.000 | -0.0006        | -0.0003  |
| 10-15 km        | 60-70 km        | -0.0005 | 0.0001    | -8.7  | 0.000 | -0.0006        | -0.0004  |
| 15-20 km        | 60-70 km        | -0.0004 | 0.0001    | -5.0  | 0.000 | -0.0006        | -0.0003  |
| 20-25 km        | 60-70 km        | -0.0005 | 0.0001    | -7.7  | 0.000 | -0.0006        | -0.0004  |
| 25-30 km        | 60-70 km        | -0.0005 | 0.0001    | -4.3  | 0.000 | -0.0007        | -0.0003  |
| 30-35 km        | 60-70 km        | -0.0001 | 0.0002    | -0.4  | 0.672 | -0.0005        | 0.0003   |
| 35-40 km        | 60-70 km        | -0.0004 | 0.0001    | -3.8  | 0.000 | -0.0006        | -0.0002  |
| 40-45 km        | 60-70 km        | -0.0004 | 0.0001    | -4.1  | 0.000 | -0.0006        | -0.0002  |
| 45-50 km        | 60-70 km        | -0.0007 | 0.0001    | -7.9  | 0.000 | -0.0009        | -0.0005  |
| >50 km          | 60-70 km        | -0.0007 | 0.0000    | -16.2 | 0.000 | -0.0008        | -0.0006  |
| 0-5 km          | 70-80 km        | -0.0004 | 0.0001    | -7.7  | 0.000 | -0.0005        | -0.0003  |
| 5-10 km         | 70-80 km        | -0.0005 | 0.0001    | -8.4  | 0.000 | -0.0006        | -0.0004  |
| 10-15 km        | 70-80 km        | -0.0004 | 0.0001    | -6.2  | 0.000 | -0.0006        | -0.0003  |
| 15-20 km        | 70-80 km        | -0.0005 | 0.0000    | -11.5 | 0.000 | -0.0006        | -0.0005  |
| 20-25 km        | 70-80 km        | -0.0005 | 0.0000    | -10.0 | 0.000 | -0.0006        | -0.0004  |
| 25-30 km        | 70-80 km        | -0.0004 | 0.0001    | -3.1  | 0.002 | -0.0006        | -0.0001  |
| 30-35 km        | 70-80 km        | -0.0005 | 0.0001    | -8.8  | 0.000 | -0.0006        | -0.0004  |
| 35-40 km        | 70-80 km        | -0.0003 | 0.0001    | -2.6  | 0.008 | -0.0006        | -0.0001  |
| 40-45 km        | 70-80 km        | -0.0004 | 0.0001    | -4.3  | 0.000 | -0.0006        | -0.0002  |
| 45-50 km        | 70-80 km        | -0.0005 | 0.0001    | -4.4  | 0.000 | -0.0008        | -0.0003  |
| >50 km          | 70-80 km        | -0.0007 | 0.0000    | -15.4 | 0.000 | -0.0008        | -0.0006  |

Table E.3: Night light by distance to the nearest mission station and homeland border:  
Including only Sub-Saharan Africa (continued)

| Homeland border         | Mission station | Coef.   | Std. Err. | t     | P>t   | 95% Confidence | Interval |
|-------------------------|-----------------|---------|-----------|-------|-------|----------------|----------|
| 0-5 km                  | 80-90 km        | -0.0003 | 0.0001    | -6.6  | 0.000 | -0.0004        | -0.0002  |
| 5-10 km                 | 80-90 km        | -0.0004 | 0.0000    | -8.2  | 0.000 | -0.0004        | -0.0003  |
| 10-15 km                | 80-90 km        | -0.0004 | 0.0000    | -8.4  | 0.000 | -0.0005        | -0.0003  |
| 15-20 km                | 80-90 km        | -0.0004 | 0.0001    | -6.8  | 0.000 | -0.0005        | -0.0003  |
| 20-25 km                | 80-90 km        | -0.0004 | 0.0001    | -7.2  | 0.000 | -0.0005        | -0.0003  |
| 25-30 km                | 80-90 km        | -0.0004 | 0.0000    | -9.4  | 0.000 | -0.0005        | -0.0004  |
| 30-35 km                | 80-90 km        | -0.0004 | 0.0001    | -7.0  | 0.000 | -0.0005        | -0.0003  |
| 35-40 km                | 80-90 km        | -0.0005 | 0.0001    | -6.3  | 0.000 | -0.0006        | -0.0003  |
| 40-45 km                | 80-90 km        | -0.0005 | 0.0001    | -7.2  | 0.000 | -0.0007        | -0.0004  |
| 45-50 km                | 80-90 km        | -0.0003 | 0.0001    | -3.2  | 0.001 | -0.0005        | -0.0001  |
| >50 km                  | 80-90 km        | -0.0006 | 0.0000    | -14.3 | 0.000 | -0.0007        | -0.0005  |
| 0-5 km                  | 90-100 km       | -0.0003 | 0.0001    | -4.8  | 0.000 | -0.0004        | -0.0002  |
| 5-10 km                 | 90-100 km       | -0.0005 | 0.0000    | -9.8  | 0.000 | -0.0006        | -0.0004  |
| 10-15 km                | 90-100 km       | -0.0003 | 0.0001    | -6.3  | 0.000 | -0.0005        | -0.0002  |
| 15-20 km                | 90-100 km       | -0.0003 | 0.0000    | -7.6  | 0.000 | -0.0004        | -0.0003  |
| 20-25 km                | 90-100 km       | -0.0004 | 0.0000    | -7.9  | 0.000 | -0.0005        | -0.0003  |
| 25-30 km                | 90-100 km       | -0.0005 | 0.0001    | -7.6  | 0.000 | -0.0006        | -0.0003  |
| 30-35 km                | 90-100 km       | -0.0004 | 0.0001    | -5.9  | 0.000 | -0.0005        | -0.0003  |
| 35-40 km                | 90-100 km       | -0.0004 | 0.0001    | -3.1  | 0.002 | -0.0006        | -0.0001  |
| 40-45 km                | 90-100 km       | -0.0005 | 0.0001    | -6.4  | 0.000 | -0.0006        | -0.0003  |
| 45-50 km                | 90-100 km       | -0.0006 | 0.0001    | -7.6  | 0.000 | -0.0007        | -0.0004  |
| >50 km                  | 90-100 km       | -0.0006 | 0.0000    | -14.0 | 0.000 | -0.0007        | -0.0005  |
| 0-5 km                  | >100 km         | -0.0003 | 0.0000    | -14.5 | 0.000 | -0.0003        | -0.0002  |
| 5-10 km                 | >100 km         | -0.0002 | 0.0000    | -11.6 | 0.000 | -0.0003        | -0.0002  |
| 10-15 km                | >100 km         | -0.0003 | 0.0000    | -15.4 | 0.000 | -0.0003        | -0.0002  |
| 15-20 km                | >100 km         | -0.0002 | 0.0000    | -14.0 | 0.000 | -0.0003        | -0.0002  |
| 20-25 km                | >100 km         | -0.0002 | 0.0000    | -11.9 | 0.000 | -0.0003        | -0.0002  |
| 25-30 km                | >100 km         | -0.0002 | 0.0000    | -9.0  | 0.000 | -0.0002        | -0.0002  |
| 30-35 km                | >100 km         | -0.0002 | 0.0000    | -11.0 | 0.000 | -0.0002        | -0.0002  |
| 35-40 km                | >100 km         | -0.0002 | 0.0000    | -8.4  | 0.000 | -0.0002        | -0.0001  |
| 40-45 km                | >100 km         | -0.0001 | 0.0000    | -6.6  | 0.000 | -0.0002        | -0.0001  |
| 45-50 km                | >100 km         | -0.0001 | 0.0000    | -6.8  | 0.000 | -0.0002        | -0.0001  |
| >50 km                  | >100 km         | 0.0000  | (omitted) |       |       |                |          |
| Controls                |                 |         |           |       |       |                | Yes      |
| Coloniser fixed effects |                 |         |           |       |       |                | Yes      |
| Country fixed effects   |                 |         |           |       |       |                | Yes      |
| Std. err.               |                 |         |           |       |       |                | Robust   |
| $R^2$                   |                 |         |           |       |       |                | 0.2396   |
| N                       |                 |         |           |       |       |                | 188,664  |

*Notes:* The regression model, displayed in Equation 2, controls for latitude, ruggedness, elevation, rainfall, temperature, land suitability for agriculture, malaria, tsetse flies, population density, uninhabited grid cells, major cities, islands, Sub-Saharan Africa, as well as the geodesic distances to coasts, rivers, railways, mines, national borders, historical explorer routes, precolonial cities, Muslim seats, Protestant printing presses, and postcolonial World Bank aid projects. Gaps between the first- and second-nearest mission stations and homeland borders are also accounted for. All variables are log-linearised except binaries. The regression sample is restricted to grid cells located south of the Sahara.

Table E.4: Night light by distance to the nearest mission station and homeland border:  
Excluding uninhabited cells

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 0-10 km         | -0.0002 | 0.0003    | -0.7 | 0.458 | -0.0008        | 0.0004   |
| 5-10 km         | 0-10 km         | -0.0002 | 0.0003    | -0.8 | 0.449 | -0.0009        | 0.0004   |
| 10-15 km        | 0-10 km         | -0.0001 | 0.0004    | -0.2 | 0.824 | -0.0008        | 0.0006   |
| 15-20 km        | 0-10 km         | 0.0008  | 0.0004    | 2.0  | 0.044 | 0.0000         | 0.0016   |
| 20-25 km        | 0-10 km         | 0.0014  | 0.0005    | 2.9  | 0.004 | 0.0004         | 0.0023   |
| 25-30 km        | 0-10 km         | 0.0017  | 0.0005    | 3.4  | 0.001 | 0.0007         | 0.0027   |
| 30-35 km        | 0-10 km         | 0.0019  | 0.0006    | 3.3  | 0.001 | 0.0008         | 0.0030   |
| 35-40 km        | 0-10 km         | 0.0015  | 0.0006    | 2.3  | 0.019 | 0.0002         | 0.0028   |
| 40-45 km        | 0-10 km         | 0.0024  | 0.0007    | 3.2  | 0.001 | 0.0009         | 0.0038   |
| 45-50 km        | 0-10 km         | 0.0036  | 0.0008    | 4.3  | 0.000 | 0.0020         | 0.0053   |
| >50 km          | 0-10 km         | 0.0036  | 0.0003    | 11.5 | 0.000 | 0.0030         | 0.0042   |
| 0-5 km          | 10-20 km        | -0.0009 | 0.0001    | -5.8 | 0.000 | -0.0012        | -0.0006  |
| 5-10 km         | 10-20 km        | -0.0006 | 0.0002    | -3.9 | 0.000 | -0.0009        | -0.0003  |
| 10-15 km        | 10-20 km        | -0.0005 | 0.0002    | -2.4 | 0.016 | -0.0009        | -0.0001  |
| 15-20 km        | 10-20 km        | -0.0008 | 0.0002    | -4.5 | 0.000 | -0.0011        | -0.0004  |
| 20-25 km        | 10-20 km        | -0.0002 | 0.0002    | -0.8 | 0.438 | -0.0006        | 0.0003   |
| 25-30 km        | 10-20 km        | 0.0001  | 0.0003    | 0.2  | 0.824 | -0.0005        | 0.0006   |
| 30-35 km        | 10-20 km        | 0.0001  | 0.0003    | 0.3  | 0.794 | -0.0004        | 0.0006   |
| 35-40 km        | 10-20 km        | 0.0005  | 0.0003    | 1.4  | 0.167 | -0.0002        | 0.0011   |
| 40-45 km        | 10-20 km        | 0.0005  | 0.0003    | 1.5  | 0.129 | -0.0001        | 0.0011   |
| 45-50 km        | 10-20 km        | 0.0003  | 0.0004    | 0.7  | 0.474 | -0.0005        | 0.0010   |
| >50 km          | 10-20 km        | 0.0002  | 0.0002    | 1.3  | 0.198 | -0.0001        | 0.0005   |
| 0-5 km          | 20-30 km        | -0.0006 | 0.0001    | -4.2 | 0.000 | -0.0009        | -0.0003  |
| 5-10 km         | 20-30 km        | -0.0005 | 0.0001    | -3.6 | 0.000 | -0.0008        | -0.0002  |
| 10-15 km        | 20-30 km        | -0.0006 | 0.0002    | -3.7 | 0.000 | -0.0009        | -0.0003  |
| 15-20 km        | 20-30 km        | -0.0008 | 0.0001    | -5.1 | 0.000 | -0.0010        | -0.0005  |
| 20-25 km        | 20-30 km        | -0.0006 | 0.0002    | -3.2 | 0.001 | -0.0009        | -0.0002  |
| 25-30 km        | 20-30 km        | -0.0007 | 0.0001    | -4.8 | 0.000 | -0.0010        | -0.0004  |
| 30-35 km        | 20-30 km        | -0.0001 | 0.0002    | -0.3 | 0.762 | -0.0006        | 0.0004   |
| 35-40 km        | 20-30 km        | -0.0006 | 0.0002    | -2.6 | 0.010 | -0.0011        | -0.0001  |
| 40-45 km        | 20-30 km        | -0.0005 | 0.0002    | -2.3 | 0.022 | -0.0009        | -0.0001  |
| 45-50 km        | 20-30 km        | -0.0007 | 0.0003    | -2.4 | 0.018 | -0.0013        | -0.0001  |
| >50 km          | 20-30 km        | -0.0003 | 0.0001    | -2.7 | 0.007 | -0.0006        | -0.0001  |
| 0-5 km          | 30-40 km        | -0.0005 | 0.0001    | -4.0 | 0.000 | -0.0007        | -0.0002  |
| 5-10 km         | 30-40 km        | -0.0006 | 0.0001    | -5.2 | 0.000 | -0.0008        | -0.0004  |
| 10-15 km        | 30-40 km        | -0.0007 | 0.0001    | -6.2 | 0.000 | -0.0009        | -0.0005  |
| 15-20 km        | 30-40 km        | -0.0007 | 0.0001    | -6.1 | 0.000 | -0.0010        | -0.0005  |
| 20-25 km        | 30-40 km        | -0.0005 | 0.0001    | -3.6 | 0.000 | -0.0008        | -0.0002  |
| 25-30 km        | 30-40 km        | -0.0008 | 0.0001    | -5.5 | 0.000 | -0.0011        | -0.0005  |
| 30-35 km        | 30-40 km        | -0.0008 | 0.0001    | -6.2 | 0.000 | -0.0010        | -0.0005  |
| 35-40 km        | 30-40 km        | -0.0008 | 0.0002    | -4.6 | 0.000 | -0.0011        | -0.0005  |
| 40-45 km        | 30-40 km        | -0.0007 | 0.0002    | -4.2 | 0.000 | -0.0011        | -0.0004  |
| 45-50 km        | 30-40 km        | -0.0010 | 0.0002    | -3.9 | 0.000 | -0.0014        | -0.0005  |
| >50 km          | 30-40 km        | -0.0004 | 0.0001    | -3.3 | 0.001 | -0.0007        | -0.0002  |

Table E.4: Night light by distance to the nearest mission station and homeland border:  
Excluding uninhabited cells (continued)

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 40-50 km        | -0.0007 | 0.0001    | -7.2 | 0.000 | -0.0009        | -0.0005  |
| 5-10 km         | 40-50 km        | -0.0005 | 0.0001    | -5.5 | 0.000 | -0.0007        | -0.0003  |
| 10-15 km        | 40-50 km        | -0.0007 | 0.0001    | -7.2 | 0.000 | -0.0008        | -0.0005  |
| 15-20 km        | 40-50 km        | -0.0005 | 0.0001    | -5.1 | 0.000 | -0.0007        | -0.0003  |
| 20-25 km        | 40-50 km        | -0.0008 | 0.0001    | -6.9 | 0.000 | -0.0010        | -0.0006  |
| 25-30 km        | 40-50 km        | -0.0007 | 0.0001    | -6.4 | 0.000 | -0.0009        | -0.0005  |
| 30-35 km        | 40-50 km        | -0.0008 | 0.0001    | -5.3 | 0.000 | -0.0011        | -0.0005  |
| 35-40 km        | 40-50 km        | -0.0009 | 0.0002    | -5.0 | 0.000 | -0.0012        | -0.0005  |
| 40-45 km        | 40-50 km        | -0.0010 | 0.0002    | -6.7 | 0.000 | -0.0013        | -0.0007  |
| 45-50 km        | 40-50 km        | -0.0003 | 0.0003    | -1.4 | 0.166 | -0.0008        | 0.0001   |
| >50 km          | 40-50 km        | -0.0004 | 0.0001    | -3.5 | 0.000 | -0.0006        | -0.0002  |
| 0-5 km          | 50-60 km        | -0.0005 | 0.0001    | -6.0 | 0.000 | -0.0007        | -0.0003  |
| 5-10 km         | 50-60 km        | -0.0006 | 0.0001    | -6.1 | 0.000 | -0.0008        | -0.0004  |
| 10-15 km        | 50-60 km        | -0.0005 | 0.0001    | -4.9 | 0.000 | -0.0007        | -0.0003  |
| 15-20 km        | 50-60 km        | -0.0005 | 0.0001    | -4.1 | 0.000 | -0.0007        | -0.0003  |
| 20-25 km        | 50-60 km        | -0.0004 | 0.0001    | -3.0 | 0.003 | -0.0006        | -0.0001  |
| 25-30 km        | 50-60 km        | -0.0004 | 0.0001    | -3.3 | 0.001 | -0.0006        | -0.0002  |
| 30-35 km        | 50-60 km        | -0.0007 | 0.0001    | -6.0 | 0.000 | -0.0010        | -0.0005  |
| 35-40 km        | 50-60 km        | -0.0005 | 0.0002    | -3.4 | 0.001 | -0.0008        | -0.0002  |
| 40-45 km        | 50-60 km        | -0.0007 | 0.0002    | -3.3 | 0.001 | -0.0011        | -0.0003  |
| 45-50 km        | 50-60 km        | -0.0009 | 0.0002    | -5.0 | 0.000 | -0.0012        | -0.0005  |
| >50 km          | 50-60 km        | -0.0004 | 0.0001    | -3.6 | 0.000 | -0.0006        | -0.0002  |
| 0-5 km          | 60-70 km        | -0.0006 | 0.0001    | -5.8 | 0.000 | -0.0008        | -0.0004  |
| 5-10 km         | 60-70 km        | -0.0004 | 0.0001    | -3.3 | 0.001 | -0.0006        | -0.0002  |
| 10-15 km        | 60-70 km        | -0.0006 | 0.0001    | -6.5 | 0.000 | -0.0008        | -0.0004  |
| 15-20 km        | 60-70 km        | -0.0005 | 0.0001    | -4.4 | 0.000 | -0.0007        | -0.0003  |
| 20-25 km        | 60-70 km        | -0.0005 | 0.0001    | -5.0 | 0.000 | -0.0007        | -0.0003  |
| 25-30 km        | 60-70 km        | -0.0007 | 0.0001    | -4.7 | 0.000 | -0.0009        | -0.0004  |
| 30-35 km        | 60-70 km        | -0.0001 | 0.0002    | -0.3 | 0.731 | -0.0004        | 0.0003   |
| 35-40 km        | 60-70 km        | -0.0007 | 0.0002    | -4.5 | 0.000 | -0.0011        | -0.0004  |
| 40-45 km        | 60-70 km        | -0.0005 | 0.0001    | -3.4 | 0.001 | -0.0008        | -0.0002  |
| 45-50 km        | 60-70 km        | -0.0008 | 0.0001    | -5.3 | 0.000 | -0.0010        | -0.0005  |
| >50 km          | 60-70 km        | -0.0005 | 0.0001    | -5.1 | 0.000 | -0.0007        | -0.0003  |
| 0-5 km          | 70-80 km        | -0.0003 | 0.0001    | -3.0 | 0.002 | -0.0005        | -0.0001  |
| 5-10 km         | 70-80 km        | -0.0005 | 0.0001    | -3.9 | 0.000 | -0.0007        | -0.0002  |
| 10-15 km        | 70-80 km        | -0.0005 | 0.0001    | -4.3 | 0.000 | -0.0007        | -0.0003  |
| 15-20 km        | 70-80 km        | -0.0006 | 0.0001    | -6.9 | 0.000 | -0.0008        | -0.0005  |
| 20-25 km        | 70-80 km        | -0.0005 | 0.0001    | -4.6 | 0.000 | -0.0007        | -0.0003  |
| 25-30 km        | 70-80 km        | -0.0004 | 0.0001    | -3.7 | 0.000 | -0.0007        | -0.0002  |
| 30-35 km        | 70-80 km        | -0.0005 | 0.0001    | -4.3 | 0.000 | -0.0008        | -0.0003  |
| 35-40 km        | 70-80 km        | -0.0004 | 0.0002    | -2.4 | 0.015 | -0.0007        | -0.0001  |
| 40-45 km        | 70-80 km        | -0.0003 | 0.0002    | -1.7 | 0.089 | -0.0006        | 0.0000   |
| 45-50 km        | 70-80 km        | -0.0004 | 0.0003    | -1.6 | 0.101 | -0.0009        | 0.0001   |
| >50 km          | 70-80 km        | -0.0004 | 0.0001    | -4.4 | 0.000 | -0.0006        | -0.0002  |

Table E.4: Night light by distance to mission stations and homeland borders:  
Excluding uninhabited cells (continued)

| Homeland border         | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-------------------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km                  | 80-90 km        | -0.0003 | 0.0001    | -3.3 | 0.001 | -0.0005        | -0.0001  |
| 5-10 km                 | 80-90 km        | -0.0004 | 0.0001    | -4.5 | 0.000 | -0.0005        | -0.0002  |
| 10-15 km                | 80-90 km        | -0.0003 | 0.0001    | -3.2 | 0.002 | -0.0005        | -0.0001  |
| 15-20 km                | 80-90 km        | -0.0005 | 0.0001    | -5.1 | 0.000 | -0.0007        | -0.0003  |
| 20-25 km                | 80-90 km        | -0.0004 | 0.0001    | -3.6 | 0.000 | -0.0006        | -0.0002  |
| 25-30 km                | 80-90 km        | -0.0004 | 0.0001    | -4.5 | 0.000 | -0.0006        | -0.0002  |
| 30-35 km                | 80-90 km        | -0.0003 | 0.0001    | -2.6 | 0.009 | -0.0005        | -0.0001  |
| 35-40 km                | 80-90 km        | -0.0004 | 0.0002    | -2.3 | 0.020 | -0.0007        | -0.0001  |
| 40-45 km                | 80-90 km        | -0.0006 | 0.0002    | -3.0 | 0.003 | -0.0009        | -0.0002  |
| 45-50 km                | 80-90 km        | -0.0002 | 0.0003    | -0.6 | 0.527 | -0.0006        | 0.0003   |
| >50 km                  | 80-90 km        | -0.0005 | 0.0001    | -4.7 | 0.000 | -0.0006        | -0.0003  |
| 0-5 km                  | 90-100 km       | -0.0003 | 0.0001    | -3.3 | 0.001 | -0.0005        | -0.0001  |
| 5-10 km                 | 90-100 km       | -0.0005 | 0.0001    | -5.9 | 0.000 | -0.0007        | -0.0004  |
| 10-15 km                | 90-100 km       | -0.0003 | 0.0001    | -3.6 | 0.000 | -0.0005        | -0.0002  |
| 15-20 km                | 90-100 km       | -0.0003 | 0.0001    | -3.4 | 0.001 | -0.0005        | -0.0001  |
| 20-25 km                | 90-100 km       | -0.0003 | 0.0001    | -2.5 | 0.013 | -0.0005        | -0.0001  |
| 25-30 km                | 90-100 km       | -0.0006 | 0.0001    | -4.7 | 0.000 | -0.0008        | -0.0003  |
| 30-35 km                | 90-100 km       | -0.0003 | 0.0001    | -2.8 | 0.005 | -0.0005        | -0.0001  |
| 35-40 km                | 90-100 km       | -0.0005 | 0.0002    | -3.0 | 0.002 | -0.0008        | -0.0002  |
| 40-45 km                | 90-100 km       | -0.0002 | 0.0002    | -0.9 | 0.376 | -0.0006        | 0.0002   |
| 45-50 km                | 90-100 km       | -0.0008 | 0.0002    | -5.1 | 0.000 | -0.0011        | -0.0005  |
| >50 km                  | 90-100 km       | -0.0005 | 0.0001    | -3.7 | 0.000 | -0.0007        | -0.0002  |
| 0-5 km                  | >100 km         | -0.0004 | 0.0000    | -8.6 | 0.000 | -0.0004        | -0.0003  |
| 5-10 km                 | >100 km         | -0.0004 | 0.0000    | -8.5 | 0.000 | -0.0004        | -0.0003  |
| 10-15 km                | >100 km         | -0.0003 | 0.0000    | -7.4 | 0.000 | -0.0004        | -0.0002  |
| 15-20 km                | >100 km         | -0.0003 | 0.0000    | -7.0 | 0.000 | -0.0004        | -0.0002  |
| 20-25 km                | >100 km         | -0.0002 | 0.0000    | -4.4 | 0.000 | -0.0003        | -0.0001  |
| 25-30 km                | >100 km         | -0.0002 | 0.0000    | -3.6 | 0.000 | -0.0003        | -0.0001  |
| 30-35 km                | >100 km         | -0.0002 | 0.0001    | -3.5 | 0.000 | -0.0003        | -0.0001  |
| 35-40 km                | >100 km         | -0.0002 | 0.0001    | -3.2 | 0.001 | -0.0003        | -0.0001  |
| 40-45 km                | >100 km         | 0.0000  | 0.0001    | -0.5 | 0.615 | -0.0001        | 0.0001   |
| 45-50 km                | >100 km         | -0.0002 | 0.0001    | -2.5 | 0.013 | -0.0003        | 0.0000   |
| >50 km                  | >100 km         | 0.0000  | (omitted) |      |       |                |          |
| Controls                |                 |         |           |      |       |                | Yes      |
| Coloniser fixed effects |                 |         |           |      |       |                | Yes      |
| Country fixed effects   |                 |         |           |      |       |                | Yes      |
| Std. err.               |                 |         |           |      |       |                | Robust   |
| $R^2$                   |                 |         |           |      |       |                | 0.46016  |
| N                       |                 |         |           |      |       |                | 199,752  |

*Notes:* The regression model, displayed in Equation 2, controls for latitude, ruggedness, elevation, rainfall, temperature, land suitability for agriculture, malaria, tsetse flies, population density, uninhabited grid cells, major cities, islands, Sub-Saharan Africa, as well as the geodesic distances to coasts, rivers, railways, mines, national borders, historical explorer routes, precolonial cities, Muslim seats, Protestant printing presses, and postcolonial World Bank aid projects. Gaps between the first- and second-nearest mission stations and homeland borders are also accounted for. The model includes country and coloniser fixed effects, as well as robust standard errors. All variables are log-linearised except binaries. The regression sample is restricted to grid cells inhabited today.

Table E.5: Night light by distance to the nearest mission station and homeland border:  
Only cells with light

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 0-10 km         | 0.0006  | 0.0008    | 0.7  | 0.463 | -0.0010        | 0.0022   |
| 5-10 km         | 0-10 km         | -0.0004 | 0.0008    | -0.6 | 0.559 | -0.0019        | 0.0010   |
| 10-15 km        | 0-10 km         | 0.0004  | 0.0008    | 0.5  | 0.600 | -0.0012        | 0.0020   |
| 15-20 km        | 0-10 km         | 0.0014  | 0.0009    | 1.6  | 0.112 | -0.0003        | 0.0032   |
| 20-25 km        | 0-10 km         | 0.0019  | 0.0009    | 2.1  | 0.037 | 0.0001         | 0.0036   |
| 25-30 km        | 0-10 km         | 0.0030  | 0.0009    | 3.5  | 0.001 | 0.0013         | 0.0047   |
| 30-35 km        | 0-10 km         | 0.0035  | 0.0011    | 3.2  | 0.001 | 0.0014         | 0.0056   |
| 35-40 km        | 0-10 km         | 0.0027  | 0.0012    | 2.2  | 0.027 | 0.0003         | 0.0051   |
| 40-45 km        | 0-10 km         | 0.0031  | 0.0013    | 2.4  | 0.015 | 0.0006         | 0.0056   |
| 45-50 km        | 0-10 km         | 0.0059  | 0.0015    | 4.0  | 0.000 | 0.0030         | 0.0088   |
| >50 km          | 0-10 km         | 0.0045  | 0.0006    | 7.1  | 0.000 | 0.0033         | 0.0057   |
| 0-5 km          | 10-20 km        | -0.0007 | 0.0006    | -1.2 | 0.242 | -0.0018        | 0.0005   |
| 5-10 km         | 10-20 km        | 0.0000  | 0.0006    | -0.1 | 0.944 | -0.0012        | 0.0011   |
| 10-15 km        | 10-20 km        | 0.0001  | 0.0007    | 0.1  | 0.911 | -0.0012        | 0.0014   |
| 15-20 km        | 10-20 km        | -0.0003 | 0.0007    | -0.4 | 0.676 | -0.0016        | 0.0010   |
| 20-25 km        | 10-20 km        | 0.0011  | 0.0007    | 1.5  | 0.129 | -0.0003        | 0.0025   |
| 25-30 km        | 10-20 km        | 0.0009  | 0.0008    | 1.1  | 0.260 | -0.0006        | 0.0024   |
| 30-35 km        | 10-20 km        | 0.0016  | 0.0008    | 2.0  | 0.043 | 0.0000         | 0.0032   |
| 35-40 km        | 10-20 km        | 0.0016  | 0.0009    | 1.8  | 0.075 | -0.0002        | 0.0033   |
| 40-45 km        | 10-20 km        | 0.0015  | 0.0010    | 1.5  | 0.138 | -0.0005        | 0.0034   |
| 45-50 km        | 10-20 km        | 0.0020  | 0.0011    | 1.8  | 0.065 | -0.0001        | 0.0040   |
| >50 km          | 10-20 km        | 0.0012  | 0.0006    | 2.2  | 0.031 | 0.0001         | 0.0024   |
| 0-5 km          | 20-30 km        | -0.0016 | 0.0007    | -2.1 | 0.034 | -0.0030        | -0.0001  |
| 5-10 km         | 20-30 km        | -0.0014 | 0.0006    | -2.2 | 0.028 | -0.0026        | -0.0001  |
| 10-15 km        | 20-30 km        | -0.0003 | 0.0007    | -0.5 | 0.649 | -0.0018        | 0.0011   |
| 15-20 km        | 20-30 km        | -0.0018 | 0.0007    | -2.7 | 0.007 | -0.0031        | -0.0005  |
| 20-25 km        | 20-30 km        | -0.0008 | 0.0008    | -1.0 | 0.330 | -0.0023        | 0.0008   |
| 25-30 km        | 20-30 km        | -0.0016 | 0.0007    | -2.2 | 0.029 | -0.0030        | -0.0002  |
| 30-35 km        | 20-30 km        | 0.0012  | 0.0010    | 1.2  | 0.242 | -0.0008        | 0.0033   |
| 35-40 km        | 20-30 km        | -0.0005 | 0.0009    | -0.5 | 0.587 | -0.0023        | 0.0013   |
| 40-45 km        | 20-30 km        | 0.0007  | 0.0008    | 0.8  | 0.414 | -0.0009        | 0.0023   |
| 45-50 km        | 20-30 km        | -0.0013 | 0.0011    | -1.1 | 0.252 | -0.0035        | 0.0009   |
| >50 km          | 20-30 km        | -0.0006 | 0.0005    | -1.1 | 0.263 | -0.0016        | 0.0004   |
| 0-5 km          | 30-40 km        | -0.0016 | 0.0007    | -2.3 | 0.021 | -0.0029        | -0.0002  |
| 5-10 km         | 30-40 km        | -0.0018 | 0.0006    | -2.9 | 0.004 | -0.0031        | -0.0006  |
| 10-15 km        | 30-40 km        | -0.0018 | 0.0007    | -2.6 | 0.009 | -0.0031        | -0.0004  |
| 15-20 km        | 30-40 km        | -0.0022 | 0.0006    | -3.5 | 0.000 | -0.0034        | -0.0010  |
| 20-25 km        | 30-40 km        | -0.0008 | 0.0007    | -1.2 | 0.234 | -0.0022        | 0.0005   |
| 25-30 km        | 30-40 km        | -0.0023 | 0.0008    | -2.9 | 0.004 | -0.0038        | -0.0007  |
| 30-35 km        | 30-40 km        | -0.0022 | 0.0007    | -2.9 | 0.004 | -0.0036        | -0.0007  |
| 35-40 km        | 30-40 km        | -0.0025 | 0.0009    | -2.6 | 0.008 | -0.0043        | -0.0006  |
| 40-45 km        | 30-40 km        | -0.0031 | 0.0009    | -3.6 | 0.000 | -0.0048        | -0.0014  |
| 45-50 km        | 30-40 km        | -0.0011 | 0.0010    | -1.2 | 0.242 | -0.0030        | 0.0008   |
| >50 km          | 30-40 km        | 0.0008  | 0.0013    | 0.6  | 0.545 | -0.0018        | 0.0034   |

Table E.5: Night light by distance to the nearest mission station and homeland border:  
Only cells with light (continued)

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 40-50 km        | -0.0021 | 0.0007    | -3.0 | 0.002 | -0.0034        | -0.0007  |
| 5-10 km         | 40-50 km        | -0.0010 | 0.0007    | -1.4 | 0.176 | -0.0024        | 0.0004   |
| 10-15 km        | 40-50 km        | -0.0023 | 0.0006    | -3.6 | 0.000 | -0.0036        | -0.0011  |
| 15-20 km        | 40-50 km        | -0.0020 | 0.0007    | -3.0 | 0.002 | -0.0034        | -0.0007  |
| 20-25 km        | 40-50 km        | -0.0021 | 0.0007    | -3.0 | 0.003 | -0.0034        | -0.0007  |
| 25-30 km        | 40-50 km        | -0.0025 | 0.0007    | -3.7 | 0.000 | -0.0039        | -0.0012  |
| 30-35 km        | 40-50 km        | -0.0020 | 0.0009    | -2.1 | 0.037 | -0.0038        | -0.0001  |
| 35-40 km        | 40-50 km        | -0.0023 | 0.0010    | -2.3 | 0.021 | -0.0042        | -0.0003  |
| 40-45 km        | 40-50 km        | -0.0032 | 0.0009    | -3.5 | 0.000 | -0.0050        | -0.0014  |
| 45-50 km        | 40-50 km        | 0.0002  | 0.0013    | 0.2  | 0.863 | -0.0023        | 0.0028   |
| >50 km          | 40-50 km        | -0.0003 | 0.0006    | -0.5 | 0.588 | -0.0015        | 0.0008   |
| 0-5 km          | 50-60 km        | -0.0010 | 0.0007    | -1.3 | 0.189 | -0.0024        | 0.0005   |
| 5-10 km         | 50-60 km        | -0.0017 | 0.0007    | -2.5 | 0.014 | -0.0031        | -0.0004  |
| 10-15 km        | 50-60 km        | -0.0017 | 0.0008    | -2.1 | 0.039 | -0.0033        | -0.0001  |
| 15-20 km        | 50-60 km        | -0.0018 | 0.0008    | -2.3 | 0.023 | -0.0034        | -0.0002  |
| 20-25 km        | 50-60 km        | -0.0023 | 0.0010    | -2.4 | 0.019 | -0.0043        | -0.0004  |
| 25-30 km        | 50-60 km        | -0.0025 | 0.0008    | -3.1 | 0.002 | -0.0041        | -0.0009  |
| 30-35 km        | 50-60 km        | -0.0032 | 0.0007    | -4.5 | 0.000 | -0.0046        | -0.0018  |
| 35-40 km        | 50-60 km        | -0.0004 | 0.0011    | -0.3 | 0.743 | -0.0026        | 0.0018   |
| 40-45 km        | 50-60 km        | -0.0017 | 0.0013    | -1.3 | 0.202 | -0.0042        | 0.0009   |
| 45-50 km        | 50-60 km        | -0.0040 | 0.0010    | -4.1 | 0.000 | -0.0059        | -0.0021  |
| >50 km          | 50-60 km        | -0.0004 | 0.0006    | -0.6 | 0.551 | -0.0016        | 0.0008   |
| 0-5 km          | 60-70 km        | -0.0003 | 0.0007    | -0.5 | 0.637 | -0.0017        | 0.0011   |
| 5-10 km         | 60-70 km        | -0.0005 | 0.0009    | -0.5 | 0.628 | -0.0023        | 0.0014   |
| 10-15 km        | 60-70 km        | -0.0021 | 0.0008    | -2.7 | 0.007 | -0.0036        | -0.0006  |
| 15-20 km        | 60-70 km        | -0.0013 | 0.0008    | -1.8 | 0.074 | -0.0028        | 0.0001   |
| 20-25 km        | 60-70 km        | -0.0014 | 0.0007    | -1.9 | 0.053 | -0.0027        | 0.0000   |
| 25-30 km        | 60-70 km        | -0.0011 | 0.0010    | -1.2 | 0.232 | -0.0030        | 0.0007   |
| 30-35 km        | 60-70 km        | 0.0007  | 0.0012    | 0.6  | 0.534 | -0.0016        | 0.0030   |
| 35-40 km        | 60-70 km        | -0.0030 | 0.0010    | -2.9 | 0.004 | -0.0051        | -0.0010  |
| 40-45 km        | 60-70 km        | -0.0026 | 0.0009    | -2.8 | 0.005 | -0.0044        | -0.0008  |
| 45-50 km        | 60-70 km        | -0.0029 | 0.0012    | -2.4 | 0.017 | -0.0053        | -0.0005  |
| >50 km          | 60-70 km        | -0.0001 | 0.0007    | -0.1 | 0.911 | -0.0015        | 0.0013   |
| 0-5 km          | 70-80 km        | -0.0001 | 0.0008    | -0.1 | 0.927 | -0.0016        | 0.0014   |
| 5-10 km         | 70-80 km        | -0.0007 | 0.0008    | -1.0 | 0.338 | -0.0022        | 0.0008   |
| 10-15 km        | 70-80 km        | -0.0008 | 0.0007    | -1.1 | 0.257 | -0.0021        | 0.0006   |
| 15-20 km        | 70-80 km        | -0.0026 | 0.0007    | -3.9 | 0.000 | -0.0039        | -0.0013  |
| 20-25 km        | 70-80 km        | -0.0026 | 0.0006    | -4.1 | 0.000 | -0.0039        | -0.0014  |
| 25-30 km        | 70-80 km        | -0.0005 | 0.0012    | -0.4 | 0.670 | -0.0028        | 0.0018   |
| 30-35 km        | 70-80 km        | -0.0018 | 0.0007    | -2.5 | 0.013 | -0.0033        | -0.0004  |
| 35-40 km        | 70-80 km        | -0.0011 | 0.0011    | -1.0 | 0.298 | -0.0032        | 0.0010   |
| 40-45 km        | 70-80 km        | -0.0008 | 0.0013    | -0.6 | 0.549 | -0.0032        | 0.0017   |
| 45-50 km        | 70-80 km        | -0.0005 | 0.0020    | -0.3 | 0.795 | -0.0045        | 0.0034   |
| >50 km          | 70-80 km        | 0.0005  | 0.0008    | 0.6  | 0.553 | -0.0010        | 0.0019   |

Table E.5: Night light by distance to the nearest mission station and homeland border:  
Only cells with light (continued)

| Homeland border         | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-------------------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km                  | 80-90 km        | 0.0002  | 0.0008    | 0.3  | 0.777 | -0.0013        | 0.0018   |
| 5-10 km                 | 80-90 km        | -0.0004 | 0.0007    | -0.7 | 0.511 | -0.0018        | 0.0009   |
| 10-15 km                | 80-90 km        | -0.0006 | 0.0008    | -0.8 | 0.452 | -0.0022        | 0.0010   |
| 15-20 km                | 80-90 km        | -0.0019 | 0.0007    | -2.5 | 0.011 | -0.0034        | -0.0004  |
| 20-25 km                | 80-90 km        | -0.0013 | 0.0007    | -1.9 | 0.058 | -0.0027        | 0.0000   |
| 25-30 km                | 80-90 km        | -0.0018 | 0.0007    | -2.4 | 0.016 | -0.0033        | -0.0003  |
| 30-35 km                | 80-90 km        | -0.0009 | 0.0009    | -0.9 | 0.352 | -0.0027        | 0.0010   |
| 35-40 km                | 80-90 km        | 0.0004  | 0.0012    | 0.3  | 0.772 | -0.0020        | 0.0028   |
| 40-45 km                | 80-90 km        | -0.0017 | 0.0012    | -1.4 | 0.165 | -0.0041        | 0.0007   |
| 45-50 km                | 80-90 km        | 0.0011  | 0.0016    | 0.6  | 0.521 | -0.0022        | 0.0043   |
| >50 km                  | 80-90 km        | 0.0001  | 0.0009    | 0.1  | 0.950 | -0.0016        | 0.0018   |
| 0-5 km                  | 90-100 km       | -0.0009 | 0.0009    | -1.0 | 0.318 | -0.0026        | 0.0009   |
| 5-10 km                 | 90-100 km       | -0.0014 | 0.0008    | -1.8 | 0.072 | -0.0028        | 0.0001   |
| 10-15 km                | 90-100 km       | -0.0013 | 0.0008    | -1.6 | 0.117 | -0.0028        | 0.0003   |
| 15-20 km                | 90-100 km       | -0.0016 | 0.0008    | -2.0 | 0.043 | -0.0031        | 0.0000   |
| 20-25 km                | 90-100 km       | 0.0002  | 0.0011    | 0.2  | 0.830 | -0.0020        | 0.0025   |
| 25-30 km                | 90-100 km       | -0.0015 | 0.0009    | -1.7 | 0.088 | -0.0033        | 0.0002   |
| 30-35 km                | 90-100 km       | -0.0004 | 0.0011    | -0.4 | 0.699 | -0.0025        | 0.0017   |
| 35-40 km                | 90-100 km       | 0.0003  | 0.0013    | 0.2  | 0.831 | -0.0023        | 0.0028   |
| 40-45 km                | 90-100 km       | -0.0012 | 0.0021    | -0.6 | 0.574 | -0.0053        | 0.0029   |
| 45-50 km                | 90-100 km       | -0.0032 | 0.0012    | -2.7 | 0.007 | -0.0056        | -0.0009  |
| >50 km                  | 90-100 km       | 0.0003  | 0.0010    | 0.3  | 0.788 | -0.0017        | 0.0023   |
| 0-5 km                  | >100 km         | 0.0006  | 0.0004    | 1.7  | 0.094 | -0.0001        | 0.0014   |
| 5-10 km                 | >100 km         | 0.0004  | 0.0004    | 1.1  | 0.254 | -0.0003        | 0.0012   |
| 10-15 km                | >100 km         | 0.0009  | 0.0004    | 2.3  | 0.023 | 0.0001         | 0.0017   |
| 15-20 km                | >100 km         | 0.0004  | 0.0004    | 1.1  | 0.288 | -0.0004        | 0.0012   |
| 20-25 km                | >100 km         | 0.0008  | 0.0004    | 1.8  | 0.076 | -0.0001        | 0.0016   |
| 25-30 km                | >100 km         | 0.0005  | 0.0004    | 1.1  | 0.290 | -0.0004        | 0.0013   |
| 30-35 km                | >100 km         | 0.0013  | 0.0005    | 2.8  | 0.005 | 0.0004         | 0.0022   |
| 35-40 km                | >100 km         | 0.0007  | 0.0005    | 1.5  | 0.134 | -0.0002        | 0.0016   |
| 40-45 km                | >100 km         | 0.0023  | 0.0012    | 1.9  | 0.056 | -0.0001        | 0.0047   |
| 45-50 km                | >100 km         | 0.0005  | 0.0006    | 0.8  | 0.409 | -0.0007        | 0.0018   |
| >50 km                  | >100 km         | 0.0000  | (omitted) |      |       |                |          |
| Controls                |                 |         |           |      |       |                | Yes      |
| Coloniser fixed effects |                 |         |           |      |       |                | Yes      |
| Country fixed effects   |                 |         |           |      |       |                | Yes      |
| Std. err.               |                 |         |           |      |       |                | Robust   |
| $R^2$                   |                 |         |           |      |       |                | 0.5125   |
| N                       |                 |         |           |      |       |                | 27,728   |

*Notes:* The regression model, displayed in Equation 2, controls for latitude, ruggedness, elevation, rainfall, temperature, land suitability for agriculture, malaria, tsetse flies, population density, uninhabited grid cells, major cities, islands, Sub-Saharan Africa, as well as the geodesic distances to coasts, rivers, railways, mines, national borders, historical explorer routes, precolonial cities, Muslim seats, Protestant printing presses, and postcolonial World Bank aid projects. Gaps between the first- and second-nearest mission stations and homeland borders are also accounted for. All variables are log-linearised except binaries. The regression sample is restricted to grid cells that emit night light today.

Table E.6: Night light by distance to the nearest mission station and homeland border:  
Satellite night light 2023

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 0-10 km         | -0.0001 | 0.0004    | -0.3 | 0.801 | -0.0009        | 0.0007   |
| 5-10 km         | 0-10 km         | 0.0003  | 0.0006    | 0.5  | 0.640 | -0.0009        | 0.0014   |
| 10-15 km        | 0-10 km         | 0.0004  | 0.0005    | 0.8  | 0.409 | -0.0006        | 0.0015   |
| 15-20 km        | 0-10 km         | 0.0013  | 0.0007    | 1.8  | 0.065 | -0.0001        | 0.0026   |
| 20-25 km        | 0-10 km         | 0.0017  | 0.0009    | 2.0  | 0.050 | 0.0000         | 0.0035   |
| 25-30 km        | 0-10 km         | 0.0011  | 0.0006    | 1.8  | 0.076 | -0.0001        | 0.0023   |
| 30-35 km        | 0-10 km         | 0.0009  | 0.0006    | 1.7  | 0.096 | -0.0002        | 0.0020   |
| 35-40 km        | 0-10 km         | 0.0017  | 0.0012    | 1.4  | 0.160 | -0.0007        | 0.0041   |
| 40-45 km        | 0-10 km         | 0.0016  | 0.0008    | 2.1  | 0.040 | 0.0001         | 0.0031   |
| 45-50 km        | 0-10 km         | 0.0039  | 0.0014    | 2.9  | 0.004 | 0.0013         | 0.0066   |
| >50 km          | 0-10 km         | 0.0031  | 0.0004    | 6.9  | 0.000 | 0.0022         | 0.0040   |
| 0-5 km          | 10-20 km        | -0.0006 | 0.0002    | -3.8 | 0.000 | -0.0009        | -0.0003  |
| 5-10 km         | 10-20 km        | -0.0004 | 0.0002    | -2.0 | 0.041 | -0.0008        | 0.0000   |
| 10-15 km        | 10-20 km        | -0.0003 | 0.0002    | -1.4 | 0.167 | -0.0008        | 0.0001   |
| 15-20 km        | 10-20 km        | -0.0004 | 0.0003    | -1.1 | 0.275 | -0.0010        | 0.0003   |
| 20-25 km        | 10-20 km        | 0.0001  | 0.0004    | 0.2  | 0.825 | -0.0007        | 0.0009   |
| 25-30 km        | 10-20 km        | -0.0004 | 0.0002    | -1.8 | 0.074 | -0.0008        | 0.0000   |
| 30-35 km        | 10-20 km        | 0.0001  | 0.0003    | 0.4  | 0.702 | -0.0005        | 0.0008   |
| 35-40 km        | 10-20 km        | 0.0001  | 0.0003    | 0.3  | 0.795 | -0.0005        | 0.0006   |
| 40-45 km        | 10-20 km        | 0.0006  | 0.0005    | 1.3  | 0.203 | -0.0003        | 0.0015   |
| 45-50 km        | 10-20 km        | 0.0010  | 0.0006    | 1.6  | 0.116 | -0.0002        | 0.0022   |
| >50 km          | 10-20 km        | 0.0003  | 0.0003    | 1.0  | 0.327 | -0.0003        | 0.0008   |
| 0-5 km          | 20-30 km        | -0.0005 | 0.0001    | -5.1 | 0.000 | -0.0007        | -0.0003  |
| 5-10 km         | 20-30 km        | -0.0005 | 0.0001    | -3.7 | 0.000 | -0.0007        | -0.0002  |
| 10-15 km        | 20-30 km        | -0.0004 | 0.0001    | -2.9 | 0.004 | -0.0007        | -0.0001  |
| 15-20 km        | 20-30 km        | -0.0007 | 0.0002    | -4.5 | 0.000 | -0.0010        | -0.0004  |
| 20-25 km        | 20-30 km        | -0.0004 | 0.0002    | -1.6 | 0.112 | -0.0009        | 0.0001   |
| 25-30 km        | 20-30 km        | -0.0005 | 0.0002    | -3.2 | 0.002 | -0.0008        | -0.0002  |
| 30-35 km        | 20-30 km        | -0.0001 | 0.0002    | -0.3 | 0.752 | -0.0005        | 0.0004   |
| 35-40 km        | 20-30 km        | -0.0003 | 0.0003    | -0.8 | 0.429 | -0.0009        | 0.0004   |
| 40-45 km        | 20-30 km        | -0.0004 | 0.0002    | -1.6 | 0.107 | -0.0008        | 0.0001   |
| 45-50 km        | 20-30 km        | -0.0005 | 0.0002    | -2.5 | 0.011 | -0.0009        | -0.0001  |
| >50 km          | 20-30 km        | -0.0002 | 0.0001    | -1.3 | 0.193 | -0.0005        | 0.0001   |
| 0-5 km          | 30-40 km        | -0.0003 | 0.0001    | -2.7 | 0.007 | -0.0005        | -0.0001  |
| 5-10 km         | 30-40 km        | -0.0005 | 0.0001    | -5.8 | 0.000 | -0.0006        | -0.0003  |
| 10-15 km        | 30-40 km        | -0.0006 | 0.0001    | -6.9 | 0.000 | -0.0007        | -0.0004  |
| 15-20 km        | 30-40 km        | -0.0006 | 0.0001    | -5.8 | 0.000 | -0.0008        | -0.0004  |
| 20-25 km        | 30-40 km        | -0.0004 | 0.0001    | -4.4 | 0.000 | -0.0006        | -0.0002  |
| 25-30 km        | 30-40 km        | -0.0006 | 0.0001    | -4.8 | 0.000 | -0.0009        | -0.0004  |
| 30-35 km        | 30-40 km        | -0.0007 | 0.0001    | -6.9 | 0.000 | -0.0009        | -0.0005  |
| 35-40 km        | 30-40 km        | -0.0007 | 0.0001    | -6.3 | 0.000 | -0.0009        | -0.0005  |
| 40-45 km        | 30-40 km        | -0.0007 | 0.0001    | -6.4 | 0.000 | -0.0009        | -0.0005  |
| 45-50 km        | 30-40 km        | -0.0003 | 0.0005    | -0.7 | 0.515 | -0.0012        | 0.0006   |
| >50 km          | 30-40 km        | 0.0000  | 0.0001    | -0.1 | 0.920 | -0.0003        | 0.0003   |

Table E.6: Night light by distance to the nearest mission station and homeland border:  
Satellite night light 2023 (continued)

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 40-50 km        | -0.0004 | 0.0001    | -4.1 | 0.000 | -0.0006        | -0.0002  |
| 5-10 km         | 40-50 km        | -0.0003 | 0.0001    | -4.0 | 0.000 | -0.0005        | -0.0002  |
| 10-15 km        | 40-50 km        | -0.0005 | 0.0001    | -6.5 | 0.000 | -0.0006        | -0.0003  |
| 15-20 km        | 40-50 km        | -0.0005 | 0.0001    | -6.4 | 0.000 | -0.0007        | -0.0003  |
| 20-25 km        | 40-50 km        | -0.0007 | 0.0001    | -7.3 | 0.000 | -0.0009        | -0.0005  |
| 25-30 km        | 40-50 km        | -0.0006 | 0.0001    | -7.6 | 0.000 | -0.0007        | -0.0004  |
| 30-35 km        | 40-50 km        | -0.0007 | 0.0001    | -6.3 | 0.000 | -0.0009        | -0.0004  |
| 35-40 km        | 40-50 km        | -0.0006 | 0.0002    | -3.8 | 0.000 | -0.0009        | -0.0003  |
| 40-45 km        | 40-50 km        | -0.0009 | 0.0001    | -7.6 | 0.000 | -0.0011        | -0.0007  |
| 45-50 km        | 40-50 km        | -0.0004 | 0.0002    | -2.7 | 0.007 | -0.0007        | -0.0001  |
| >50 km          | 40-50 km        | -0.0003 | 0.0001    | -2.9 | 0.003 | -0.0004        | -0.0001  |
| 0-5 km          | 50-60 km        | -0.0003 | 0.0001    | -5.2 | 0.000 | -0.0005        | -0.0002  |
| 5-10 km         | 50-60 km        | -0.0004 | 0.0001    | -5.8 | 0.000 | -0.0006        | -0.0003  |
| 10-15 km        | 50-60 km        | -0.0005 | 0.0001    | -6.3 | 0.000 | -0.0006        | -0.0003  |
| 15-20 km        | 50-60 km        | -0.0004 | 0.0001    | -4.5 | 0.000 | -0.0006        | -0.0002  |
| 20-25 km        | 50-60 km        | -0.0004 | 0.0001    | -4.3 | 0.000 | -0.0006        | -0.0002  |
| 25-30 km        | 50-60 km        | -0.0004 | 0.0001    | -3.2 | 0.001 | -0.0006        | -0.0002  |
| 30-35 km        | 50-60 km        | -0.0007 | 0.0001    | -7.3 | 0.000 | -0.0008        | -0.0005  |
| 35-40 km        | 50-60 km        | -0.0005 | 0.0001    | -5.1 | 0.000 | -0.0007        | -0.0003  |
| 40-45 km        | 50-60 km        | -0.0006 | 0.0001    | -5.1 | 0.000 | -0.0008        | -0.0003  |
| 45-50 km        | 50-60 km        | -0.0007 | 0.0001    | -5.1 | 0.000 | -0.0009        | -0.0004  |
| >50 km          | 50-60 km        | -0.0002 | 0.0001    | -2.5 | 0.013 | -0.0004        | -0.0001  |
| 0-5 km          | 60-70 km        | -0.0005 | 0.0001    | -5.8 | 0.000 | -0.0006        | -0.0003  |
| 5-10 km         | 60-70 km        | -0.0004 | 0.0001    | -4.1 | 0.000 | -0.0005        | -0.0002  |
| 10-15 km        | 60-70 km        | -0.0004 | 0.0001    | -6.0 | 0.000 | -0.0006        | -0.0003  |
| 15-20 km        | 60-70 km        | -0.0004 | 0.0001    | -4.4 | 0.000 | -0.0006        | -0.0002  |
| 20-25 km        | 60-70 km        | -0.0005 | 0.0001    | -5.2 | 0.000 | -0.0006        | -0.0003  |
| 25-30 km        | 60-70 km        | -0.0005 | 0.0001    | -4.6 | 0.000 | -0.0007        | -0.0003  |
| 30-35 km        | 60-70 km        | -0.0002 | 0.0001    | -1.5 | 0.127 | -0.0005        | 0.0001   |
| 35-40 km        | 60-70 km        | -0.0006 | 0.0001    | -5.9 | 0.000 | -0.0008        | -0.0004  |
| 40-45 km        | 60-70 km        | -0.0004 | 0.0001    | -4.2 | 0.000 | -0.0006        | -0.0002  |
| 45-50 km        | 60-70 km        | -0.0007 | 0.0001    | -5.7 | 0.000 | -0.0009        | -0.0004  |
| >50 km          | 60-70 km        | -0.0003 | 0.0001    | -3.1 | 0.002 | -0.0004        | -0.0001  |
| 0-5 km          | 70-80 km        | -0.0004 | 0.0001    | -4.6 | 0.000 | -0.0005        | -0.0002  |
| 5-10 km         | 70-80 km        | -0.0003 | 0.0001    | -2.5 | 0.013 | -0.0005        | -0.0001  |
| 10-15 km        | 70-80 km        | -0.0004 | 0.0001    | -4.4 | 0.000 | -0.0006        | -0.0002  |
| 15-20 km        | 70-80 km        | -0.0005 | 0.0001    | -6.3 | 0.000 | -0.0006        | -0.0003  |
| 20-25 km        | 70-80 km        | -0.0004 | 0.0001    | -4.8 | 0.000 | -0.0005        | -0.0002  |
| 25-30 km        | 70-80 km        | -0.0004 | 0.0001    | -4.8 | 0.000 | -0.0006        | -0.0003  |
| 30-35 km        | 70-80 km        | -0.0005 | 0.0001    | -5.3 | 0.000 | -0.0006        | -0.0003  |
| 35-40 km        | 70-80 km        | -0.0001 | 0.0002    | -0.7 | 0.475 | -0.0005        | 0.0002   |
| 40-45 km        | 70-80 km        | -0.0001 | 0.0002    | -0.8 | 0.419 | -0.0005        | 0.0002   |
| 45-50 km        | 70-80 km        | 0.0000  | 0.0005    | 0.1  | 0.940 | -0.0009        | 0.0010   |
| >50 km          | 70-80 km        | -0.0003 | 0.0001    | -3.1 | 0.002 | -0.0006        | -0.0001  |

Table E.6: Night light by distance to the nearest mission station and homeland border:  
Satellite night light 2023 (continued)

| Homeland border         | Mission station | Coef.   | Std. Err. | t     | P>t   | 95% Confidence | Interval |
|-------------------------|-----------------|---------|-----------|-------|-------|----------------|----------|
| 0-5 km                  | 80-90 km        | -0.0003 | 0.0001    | -3.7  | 0.000 | -0.0004        | -0.0001  |
| 5-10 km                 | 80-90 km        | -0.0003 | 0.0001    | -4.1  | 0.000 | -0.0004        | -0.0001  |
| 10-15 km                | 80-90 km        | -0.0003 | 0.0001    | -4.0  | 0.000 | -0.0004        | -0.0001  |
| 15-20 km                | 80-90 km        | -0.0005 | 0.0001    | -5.9  | 0.000 | -0.0006        | -0.0003  |
| 20-25 km                | 80-90 km        | -0.0004 | 0.0001    | -4.6  | 0.000 | -0.0005        | -0.0002  |
| 25-30 km                | 80-90 km        | -0.0003 | 0.0001    | -4.3  | 0.000 | -0.0005        | -0.0002  |
| 30-35 km                | 80-90 km        | -0.0002 | 0.0001    | -2.6  | 0.010 | -0.0004        | -0.0001  |
| 35-40 km                | 80-90 km        | -0.0003 | 0.0001    | -2.3  | 0.022 | -0.0005        | 0.0000   |
| 40-45 km                | 80-90 km        | -0.0004 | 0.0003    | -1.5  | 0.145 | -0.0009        | 0.0001   |
| 45-50 km                | 80-90 km        | 0.0003  | 0.0003    | 0.9   | 0.376 | -0.0004        | 0.0010   |
| >50 km                  | 80-90 km        | -0.0004 | 0.0001    | -6.2  | 0.000 | -0.0005        | -0.0003  |
| 0-5 km                  | 90-100 km       | -0.0002 | 0.0001    | -2.9  | 0.004 | -0.0004        | -0.0001  |
| 5-10 km                 | 90-100 km       | -0.0004 | 0.0001    | -5.2  | 0.000 | -0.0005        | -0.0002  |
| 10-15 km                | 90-100 km       | -0.0003 | 0.0001    | -4.0  | 0.000 | -0.0004        | -0.0001  |
| 15-20 km                | 90-100 km       | -0.0002 | 0.0001    | -2.0  | 0.041 | -0.0003        | 0.0000   |
| 20-25 km                | 90-100 km       | -0.0001 | 0.0001    | -1.3  | 0.201 | -0.0003        | 0.0001   |
| 25-30 km                | 90-100 km       | -0.0005 | 0.0001    | -5.2  | 0.000 | -0.0006        | -0.0003  |
| 30-35 km                | 90-100 km       | -0.0002 | 0.0001    | -2.5  | 0.013 | -0.0004        | 0.0000   |
| 35-40 km                | 90-100 km       | -0.0005 | 0.0001    | -4.3  | 0.000 | -0.0008        | -0.0003  |
| 40-45 km                | 90-100 km       | 0.0002  | 0.0005    | 0.5   | 0.647 | -0.0007        | 0.0012   |
| 45-50 km                | 90-100 km       | -0.0005 | 0.0001    | -3.6  | 0.000 | -0.0007        | -0.0002  |
| >50 km                  | 90-100 km       | -0.0004 | 0.0001    | -3.3  | 0.001 | -0.0006        | -0.0001  |
| 0-5 km                  | >100 km         | -0.0003 | 0.0000    | -7.9  | 0.000 | -0.0004        | -0.0002  |
| 5-10 km                 | >100 km         | -0.0003 | 0.0000    | -10.0 | 0.000 | -0.0004        | -0.0002  |
| 10-15 km                | >100 km         | -0.0003 | 0.0000    | -8.5  | 0.000 | -0.0003        | -0.0002  |
| 15-20 km                | >100 km         | -0.0003 | 0.0000    | -8.6  | 0.000 | -0.0003        | -0.0002  |
| 20-25 km                | >100 km         | -0.0003 | 0.0000    | -7.6  | 0.000 | -0.0003        | -0.0002  |
| 25-30 km                | >100 km         | -0.0002 | 0.0000    | -4.3  | 0.000 | -0.0003        | -0.0001  |
| 30-35 km                | >100 km         | -0.0002 | 0.0000    | -4.6  | 0.000 | -0.0002        | -0.0001  |
| 35-40 km                | >100 km         | -0.0001 | 0.0001    | -2.3  | 0.023 | -0.0003        | 0.0000   |
| 40-45 km                | >100 km         | -0.0001 | 0.0000    | -3.7  | 0.000 | -0.0002        | -0.0001  |
| 45-50 km                | >100 km         | -0.0001 | 0.0001    | -1.8  | 0.077 | -0.0003        | 0.0000   |
| >50 km                  | >100 km         | 0.0000  | (omitted) |       |       |                |          |
| Controls                |                 |         |           |       |       |                | Yes      |
| Coloniser fixed effects |                 |         |           |       |       |                | Yes      |
| Country fixed effects   |                 |         |           |       |       |                | Yes      |
| Std. err.               |                 |         |           |       |       |                | Robust   |
| $R^2$                   |                 |         |           |       |       |                | 0.1795   |
| N                       |                 |         |           |       |       |                | 257,224  |

*Notes:* The regression model, displayed in Equation 2, controls for latitude, ruggedness, elevation, rainfall, temperature, land suitability for agriculture, malaria, tsetse flies, population density, uninhabited grid cells, major cities, islands, Sub-Saharan Africa, as well as the geodesic distances to coasts, rivers, railways, mines, national borders, historical explorer routes, precolonial cities, Muslim seats, Protestant printing presses, and postcolonial World Bank aid projects. Gaps between the first- and second-nearest mission stations and homeland borders are also accounted for. The model includes country and coloniser fixed effects, as well as robust standard errors. All variables are log-linearised except binaries. Night light is for 2023.

## F Placebo test results

Table F.1: Night light by distance to the nearest mission station and homeland border:  
Randomised distances

| Homeland border | Mission station | Coef.   | Std. Err. | t     | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|-------|-------|----------------|----------|
| 0-5 km          | 0-10 km         | -0.0003 | 0.0005    | -0.6  | 0.520 | -0.0014        | 0.0007   |
| 5-10 km         | 0-10 km         | -0.0008 | 0.0010    | -0.7  | 0.454 | -0.0027        | 0.0012   |
| 10-15 km        | 0-10 km         | 0.0003  | 0.0011    | 0.3   | 0.772 | -0.0019        | 0.0025   |
| 15-20 km        | 0-10 km         | -0.0004 | 0.0006    | -0.7  | 0.493 | -0.0015        | 0.0007   |
| 20-25 km        | 0-10 km         | -0.0003 | 0.0006    | -0.5  | 0.627 | -0.0016        | 0.0010   |
| 25-30 km        | 0-10 km         | 0.0013  | 0.0006    | 2.2   | 0.028 | 0.0001         | 0.0024   |
| 30-35 km        | 0-10 km         | -0.0011 | 0.0005    | -2.5  | 0.013 | -0.0020        | -0.0002  |
| 35-40 km        | 0-10 km         | 0.0003  | 0.0005    | 0.6   | 0.570 | -0.0006        | 0.0012   |
| 40-45 km        | 0-10 km         | -0.0008 | 0.0007    | -1.2  | 0.243 | -0.0023        | 0.0006   |
| 45-50 km        | 0-10 km         | -0.0006 | 0.0007    | -0.9  | 0.357 | -0.0019        | 0.0007   |
| >50 km          | 0-10 km         | 0.0000  | 0.0001    | -0.5  | 0.650 | -0.0002        | 0.0002   |
| 0-5 km          | 10-20 km        | 0.0006  | 0.0013    | 0.4   | 0.667 | -0.0020        | 0.0032   |
| 5-10 km         | 10-20 km        | 0.0002  | 0.0006    | 0.4   | 0.709 | -0.0009        | 0.0014   |
| 10-15 km        | 10-20 km        | -0.0047 | 0.0037    | -1.3  | 0.199 | -0.0119        | 0.0025   |
| 15-20 km        | 10-20 km        | -0.0002 | 0.0007    | -0.3  | 0.788 | -0.0016        | 0.0012   |
| 20-25 km        | 10-20 km        | -0.0009 | 0.0008    | -1.1  | 0.281 | -0.0025        | 0.0007   |
| 25-30 km        | 10-20 km        | -0.0002 | 0.0002    | -0.8  | 0.403 | -0.0007        | 0.0003   |
| 30-35 km        | 10-20 km        | -0.0001 | 0.0004    | -0.1  | 0.887 | -0.0009        | 0.0008   |
| 35-40 km        | 10-20 km        | -0.0016 | 0.0007    | -2.2  | 0.025 | -0.0030        | -0.0002  |
| 40-45 km        | 10-20 km        | 0.0006  | 0.0004    | 1.3   | 0.194 | -0.0003        | 0.0014   |
| 45-50 km        | 10-20 km        | 0.0036  | 0.0036    | 1.0   | 0.316 | -0.0034        | 0.0107   |
| >50 km          | 10-20 km        | -0.0002 | 0.0001    | -2.4  | 0.018 | -0.0004        | 0.0000   |
| 0-5 km          | 20-30 km        | -0.0002 | 0.0009    | -0.2  | 0.856 | -0.0018        | 0.0015   |
| 5-10 km         | 20-30 km        | 0.0002  | 0.0007    | 0.2   | 0.825 | -0.0012        | 0.0016   |
| 10-15 km        | 20-30 km        | 0.0005  | 0.0003    | 1.9   | 0.053 | 0.0000         | 0.0011   |
| 15-20 km        | 20-30 km        | -0.0034 | 0.0001    | -39.8 | 0.000 | -0.0036        | -0.0032  |
| 20-25 km        | 20-30 km        | -0.0007 | 0.0013    | -0.5  | 0.587 | -0.0034        | 0.0019   |
| 25-30 km        | 20-30 km        | -0.0015 | 0.0014    | -1.1  | 0.288 | -0.0043        | 0.0013   |
| 30-35 km        | 20-30 km        | 0.0000  | 0.0009    | 0.0   | 0.979 | -0.0018        | 0.0018   |
| 35-40 km        | 20-30 km        | 0.0008  | 0.0006    | 1.3   | 0.203 | -0.0004        | 0.0021   |
| 40-45 km        | 20-30 km        | -0.0023 | 0.0017    | -1.3  | 0.190 | -0.0057        | 0.0011   |
| 45-50 km        | 20-30 km        | 0.0006  | 0.0008    | 0.7   | 0.469 | -0.0010        | 0.0022   |
| >50 km          | 20-30 km        | 0.0002  | 0.0002    | 1.3   | 0.204 | -0.0001        | 0.0006   |
| 0-5 km          | 30-40 km        | 0.0009  | 0.0013    | 0.7   | 0.474 | -0.0017        | 0.0035   |
| 5-10 km         | 30-40 km        | -0.0007 | 0.0008    | -0.9  | 0.349 | -0.0022        | 0.0008   |
| 10-15 km        | 30-40 km        | -0.0005 | 0.0006    | -0.7  | 0.479 | -0.0017        | 0.0008   |
| 15-20 km        | 30-40 km        | 0.0011  | 0.0002    | 6.1   | 0.000 | 0.0007         | 0.0014   |
| 20-25 km        | 30-40 km        | -0.0007 | 0.0007    | -0.9  | 0.346 | -0.0021        | 0.0007   |
| 25-30 km        | 30-40 km        | -0.0011 | 0.0007    | -1.5  | 0.144 | -0.0026        | 0.0004   |
| 30-35 km        | 30-40 km        | 0.0003  | 0.0012    | 0.3   | 0.772 | -0.0020        | 0.0026   |
| 35-40 km        | 30-40 km        | -0.0002 | 0.0010    | -0.2  | 0.847 | -0.0022        | 0.0018   |
| 40-45 km        | 30-40 km        | -0.0009 | 0.0004    | -2.4  | 0.015 | -0.0017        | -0.0002  |
| 45-50 km        | 30-40 km        | 0.0003  | 0.0008    | 0.4   | 0.726 | -0.0013        | 0.0019   |
| >50 km          | 30-40 km        | 0.0001  | 0.0001    | 0.6   | 0.540 | -0.0002        | 0.0003   |

Table F.1: Night light by distance to the nearest mission station and homeland border:  
Randomised distances (continued)

| Homeland border | Mission station | Coef.   | Std. Err. | t     | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|-------|-------|----------------|----------|
| 0-5 km          | 40-50 km        | 0.0006  | 0.0007    | 0.9   | 0.354 | -0.0007        | 0.0020   |
| 5-10 km         | 40-50 km        | 0.0015  | 0.0015    | 1.0   | 0.311 | -0.0014        | 0.0045   |
| 10-15 km        | 40-50 km        | 0.0002  | 0.0007    | 0.3   | 0.771 | -0.0012        | 0.0016   |
| 15-20 km        | 40-50 km        | 0.0004  | 0.0006    | 0.8   | 0.452 | -0.0007        | 0.0015   |
| 20-25 km        | 40-50 km        | -0.0010 | 0.0006    | -1.6  | 0.116 | -0.0022        | 0.0002   |
| 25-30 km        | 40-50 km        | -0.0005 | 0.0004    | -1.2  | 0.234 | -0.0013        | 0.0003   |
| 30-35 km        | 40-50 km        | 0.0002  | 0.0004    | 0.4   | 0.718 | -0.0007        | 0.0010   |
| 35-40 km        | 40-50 km        | 0.0002  | 0.0006    | 0.3   | 0.775 | -0.0011        | 0.0014   |
| 40-45 km        | 40-50 km        | -0.0007 | 0.0010    | -0.8  | 0.439 | -0.0026        | 0.0011   |
| 45-50 km        | 40-50 km        | 0.0009  | 0.0007    | 1.3   | 0.185 | -0.0004        | 0.0023   |
| >50 km          | 40-50 km        | 0.0001  | 0.0001    | 0.6   | 0.560 | -0.0002        | 0.0003   |
| 0-5 km          | 50-60 km        | 0.0009  | 0.0001    | 15.4  | 0.000 | 0.0008         | 0.0011   |
| 5-10 km         | 50-60 km        | -0.0002 | 0.0007    | -0.3  | 0.783 | -0.0016        | 0.0012   |
| 10-15 km        | 50-60 km        | -0.0001 | 0.0005    | -0.3  | 0.759 | -0.0010        | 0.0008   |
| 15-20 km        | 50-60 km        | -0.0006 | 0.0012    | -0.5  | 0.614 | -0.0031        | 0.0018   |
| 20-25 km        | 50-60 km        | -0.0005 | 0.0004    | -1.1  | 0.257 | -0.0014        | 0.0004   |
| 25-30 km        | 50-60 km        | -0.0005 | 0.0008    | -0.6  | 0.535 | -0.0020        | 0.0010   |
| 30-35 km        | 50-60 km        | -0.0009 | 0.0006    | -1.5  | 0.121 | -0.0020        | 0.0002   |
| 35-40 km        | 50-60 km        | 0.0021  | 0.0024    | 0.8   | 0.396 | -0.0027        | 0.0068   |
| 40-45 km        | 50-60 km        | -0.0012 | 0.0006    | -2.0  | 0.049 | -0.0024        | 0.0000   |
| 45-50 km        | 50-60 km        | -0.0001 | 0.0003    | -0.3  | 0.732 | -0.0008        | 0.0006   |
| >50 km          | 50-60 km        | -0.0001 | 0.0001    | -0.6  | 0.563 | -0.0002        | 0.0001   |
| 0-5 km          | 60-70 km        | -0.0012 | 0.0010    | -1.2  | 0.249 | -0.0032        | 0.0008   |
| 5-10 km         | 60-70 km        | 0.0007  | 0.0008    | 0.9   | 0.393 | -0.0009        | 0.0024   |
| 10-15 km        | 60-70 km        | 0.0006  | 0.0010    | 0.6   | 0.556 | -0.0014        | 0.0025   |
| 15-20 km        | 60-70 km        | -0.0001 | 0.0005    | -0.2  | 0.864 | -0.0011        | 0.0009   |
| 20-25 km        | 60-70 km        | -0.0005 | 0.0010    | -0.5  | 0.625 | -0.0025        | 0.0015   |
| 25-30 km        | 60-70 km        | 0.0100  | 0.0095    | 1.1   | 0.288 | -0.0085        | 0.0286   |
| 30-35 km        | 60-70 km        | -0.0014 | 0.0001    | -17.1 | 0.000 | -0.0016        | -0.0013  |
| 35-40 km        | 60-70 km        | 0.0006  | 0.0011    | 0.5   | 0.602 | -0.0015        | 0.0026   |
| 40-45 km        | 60-70 km        | -0.0013 | 0.0007    | -1.9  | 0.052 | -0.0027        | 0.0000   |
| 45-50 km        | 60-70 km        | -0.0001 | 0.0009    | -0.1  | 0.905 | -0.0019        | 0.0017   |
| >50 km          | 60-70 km        | 0.0001  | 0.0001    | 0.8   | 0.410 | -0.0001        | 0.0004   |
| 0-5 km          | 70-80 km        | -0.0002 | 0.0008    | -0.3  | 0.774 | -0.0017        | 0.0013   |
| 5-10 km         | 70-80 km        | 0.0088  | 0.0085    | 1.0   | 0.303 | -0.0079        | 0.0254   |
| 10-15 km        | 70-80 km        | -0.0013 | 0.0007    | -2.0  | 0.048 | -0.0026        | 0.0000   |
| 15-20 km        | 70-80 km        | 0.0001  | 0.0004    | 0.4   | 0.710 | -0.0006        | 0.0009   |
| 20-25 km        | 70-80 km        | 0.0001  | 0.0009    | 0.1   | 0.887 | -0.0016        | 0.0018   |
| 25-30 km        | 70-80 km        | 0.0007  | 0.0004    | 1.9   | 0.059 | 0.0000         | 0.0015   |
| 30-35 km        | 70-80 km        | -0.0007 | 0.0011    | -0.6  | 0.542 | -0.0028        | 0.0015   |
| 35-40 km        | 70-80 km        | 0.0010  | 0.0008    | 1.2   | 0.236 | -0.0007        | 0.0026   |
| 40-45 km        | 70-80 km        | -0.0003 | 0.0007    | -0.3  | 0.727 | -0.0017        | 0.0012   |
| 45-50 km        | 70-80 km        | 0.0002  | 0.0008    | 0.2   | 0.836 | -0.0014        | 0.0017   |
| >50 km          | 70-80 km        | 0.0000  | 0.0001    | -0.3  | 0.747 | -0.0002        | 0.0002   |

Table F.1: Night light by distance to mission stations and homeland borders:  
Randomised distances (continued)

| Homeland border         | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-------------------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km                  | 80-90 km        | 0.0001  | 0.0011    | 0.1  | 0.903 | -0.0020        | 0.0023   |
| 5-10 km                 | 80-90 km        | 0.0074  | 0.0074    | 1.0  | 0.321 | -0.0072        | 0.0220   |
| 10-15 km                | 80-90 km        | 0.0008  | 0.0010    | 0.9  | 0.389 | -0.0011        | 0.0027   |
| 15-20 km                | 80-90 km        | 0.0005  | 0.0010    | 0.5  | 0.596 | -0.0015        | 0.0026   |
| 20-25 km                | 80-90 km        | -0.0008 | 0.0009    | -0.9 | 0.365 | -0.0026        | 0.0010   |
| 25-30 km                | 80-90 km        | 0.0037  | 0.0079    | 0.5  | 0.642 | -0.0118        | 0.0192   |
| 30-35 km                | 80-90 km        | 0.0009  | 0.0003    | 3.5  | 0.001 | 0.0004         | 0.0015   |
| 35-40 km                | 80-90 km        | -0.0004 | 0.0009    | -0.5 | 0.627 | -0.0022        | 0.0013   |
| 40-45 km                | 80-90 km        | 0.0012  | 0.0005    | 2.2  | 0.028 | 0.0001         | 0.0022   |
| 45-50 km                | 80-90 km        | 0.0003  | 0.0005    | 0.5  | 0.590 | -0.0007        | 0.0012   |
| >50 km                  | 80-90 km        | 0.0000  | 0.0001    | 0.2  | 0.877 | -0.0002        | 0.0002   |
| 0-5 km                  | 90-100 km       | 0.0000  | 0.0002    | -0.2 | 0.812 | -0.0004        | 0.0003   |
| 5-10 km                 | 90-100 km       | 0.0009  | 0.0007    | 1.3  | 0.189 | -0.0004        | 0.0022   |
| 10-15 km                | 90-100 km       | -0.0008 | 0.0007    | -1.1 | 0.291 | -0.0022        | 0.0007   |
| 15-20 km                | 90-100 km       | 0.0006  | 0.0007    | 0.9  | 0.388 | -0.0007        | 0.0019   |
| 20-25 km                | 90-100 km       | -0.0003 | 0.0008    | -0.4 | 0.694 | -0.0019        | 0.0012   |
| 25-30 km                | 90-100 km       | 0.0142  | 0.0117    | 1.2  | 0.227 | -0.0088        | 0.0371   |
| 30-35 km                | 90-100 km       | 0.0005  | 0.0005    | 1.0  | 0.302 | -0.0005        | 0.0016   |
| 35-40 km                | 90-100 km       | 0.0021  | 0.0020    | 1.1  | 0.282 | -0.0017        | 0.0059   |
| 40-45 km                | 90-100 km       | 0.0000  | 0.0007    | 0.0  | 0.993 | -0.0013        | 0.0013   |
| 45-50 km                | 90-100 km       | -0.0020 | 0.0011    | -1.7 | 0.083 | -0.0042        | 0.0003   |
| >50 km                  | 90-100 km       | 0.0000  | 0.0001    | -0.3 | 0.767 | -0.0002        | 0.0002   |
| 0-5 km                  | >100 km         | -0.0003 | 0.0002    | -1.9 | 0.064 | -0.0006        | 0.0000   |
| 5-10 km                 | >100 km         | 0.0000  | 0.0002    | 0.1  | 0.890 | -0.0003        | 0.0004   |
| 10-15 km                | >100 km         | 0.0003  | 0.0002    | 1.4  | 0.154 | -0.0001        | 0.0007   |
| 15-20 km                | >100 km         | -0.0001 | 0.0002    | -0.5 | 0.615 | -0.0004        | 0.0002   |
| 20-25 km                | >100 km         | 0.0001  | 0.0002    | 0.7  | 0.485 | -0.0002        | 0.0005   |
| 25-30 km                | >100 km         | -0.0002 | 0.0001    | -1.3 | 0.207 | -0.0005        | 0.0001   |
| 30-35 km                | >100 km         | -0.0001 | 0.0001    | -1.1 | 0.257 | -0.0004        | 0.0001   |
| 35-40 km                | >100 km         | -0.0001 | 0.0002    | -0.6 | 0.537 | -0.0004        | 0.0002   |
| 40-45 km                | >100 km         | -0.0001 | 0.0001    | -0.9 | 0.352 | -0.0004        | 0.0001   |
| 45-50 km                | >100 km         | 0.0000  | 0.0002    | -0.1 | 0.945 | -0.0004        | 0.0003   |
| >50 km                  | >100 km         | 0.0000  | (omitted) |      |       |                |          |
| Controls                |                 |         |           |      |       |                | Yes      |
| Coloniser fixed effects |                 |         |           |      |       |                | Yes      |
| Country fixed effects   |                 |         |           |      |       |                | Yes      |
| Std. err.               |                 |         |           |      |       |                | Robust   |
| $R^2$                   |                 |         |           |      |       |                | 0.337522 |
| N                       |                 |         |           |      |       |                | 257,224  |

*Notes:* The regression model, displayed in Equation 2, controls for latitude, ruggedness, elevation, rainfall, temperature, land suitability for agriculture, malaria, tsetse flies, population density, uninhabited grid cells, major cities, islands, Sub-Saharan Africa, as well as the geodesic distances to coasts, rivers, railways, mines, national borders, historical explorer routes, precolonial cities, Muslim seats, Protestant printing presses, and postcolonial World Bank aid projects. Gaps between the first- and second-nearest mission stations and homeland borders are also accounted for. All variables are log-linearised except binaries. The distances to mission stations and homeland borders were randomised.

## G Propensity score matching results

Table G.1: Propensity score matching results

| Variable                      | Coefficient | Std. Err. | z      | P>z    | 95% Confidence | Interval |
|-------------------------------|-------------|-----------|--------|--------|----------------|----------|
| Latitude                      | 0.0402      | 0.0032    | 12.49  | 0.0000 | 0.0339         | 0.0466   |
| Ruggedness                    | -0.0005     | 0.0001    | -4.67  | 0.0000 | -0.0007        | -0.0003  |
| Elevation                     | -0.0008     | 0.0000    | -26.11 | 0.0000 | -0.0009        | -0.0008  |
| Distance to river             | -0.0027     | 0.0001    | -44.41 | 0.0000 | -0.0028        | -0.0026  |
| Distance to coast             | -0.0013     | 0.0000    | -35.17 | 0.0000 | -0.0014        | -0.0012  |
| Distance to railway           | -0.0016     | 0.0000    | -34.88 | 0.0000 | -0.0017        | -0.0015  |
| Distance to explorer route    | -0.0011     | 0.0001    | -18.12 | 0.0000 | -0.0013        | -0.0010  |
| Distance to pre-colonial city | -0.0005     | 0.0000    | -14.61 | 0.0000 | -0.0006        | -0.0005  |
| Distance to Muslim seat       | -0.0001     | 0.0000    | -3.93  | 0.0000 | -0.0002        | -0.0001  |
| Distance to mine              | -0.0010     | 0.0001    | -16.51 | 0.0000 | -0.0011        | -0.0009  |
| Land suitability              | 0.4852      | 0.0360    | 13.47  | 0.0000 | 0.4146         | 0.5558   |
| Rainfall                      | 0.0020      | 0.0000    | 60.22  | 0.0000 | 0.0019         | 0.0021   |
| Temperature                   | -0.2073     | 0.0058    | -35.76 | 0.0000 | -0.2186        | -0.1959  |
| Malaria ecology               | 0.0153      | 0.0015    | 10.13  | 0.0000 | 0.0123         | 0.0182   |
| Tsetse fly                    | -0.1850     | 0.0061    | -30.34 | 0.0000 | -0.1969        | -0.1730  |
| Coloniser                     |             |           |        |        |                |          |
| Britain                       | 0.4913      | 0.0944    | 5.20   | 0.0000 | 0.3063         | 0.6763   |
| France                        | 0.1917      | 0.0926    | 2.07   | 0.0380 | 0.0103         | 0.3731   |
| Portugal                      | -0.5168     | 0.1128    | -4.58  | 0.0000 | -0.7378        | -0.2958  |
| Italy                         | 0.3957      | 0.1021    | 3.88   | 0.0000 | 0.1957         | 0.5957   |
| Belgium                       | 1.4546      | 0.1677    | 8.68   | 0.0000 | 1.1260         | 1.7832   |
| Spain                         | 0.3613      | 0.1744    | 2.07   | 0.0380 | 0.0196         | 0.7030   |
| Germany                       | 0.1927      | 0.0982    | 1.96   | 0.0500 | 0.0002         | 0.3852   |

Table G.1: Propensity score matching results (continued)

| Variable | Coefficient | Std. Err. | z      | P>z    | 95% Confidence | Interval |
|----------|-------------|-----------|--------|--------|----------------|----------|
| BEN      | -3.6389     | 0.1363    | -26.71 | 0.0000 | -3.9060        | -3.3719  |
| BFA      | -0.8651     | 0.1262    | -6.85  | 0.0000 | -1.1124        | -0.6177  |
| BWA      | -2.3464     | 0.1015    | -23.12 | 0.0000 | -2.5453        | -2.1474  |
| CAF      | -0.7016     | 0.1148    | -6.11  | 0.0000 | -0.9266        | -0.4766  |
| CIV      | -2.8801     | 0.1175    | -24.50 | 0.0000 | -3.1105        | -2.6497  |
| CMR      | -1.1749     | 0.1147    | -10.25 | 0.0000 | -1.3997        | -0.9501  |
| COD      | -0.3221     | 0.1611    | -2.00  | 0.0460 | -0.6378        | -0.0063  |
| COG      | -1.0003     | 0.1157    | -8.64  | 0.0000 | -1.2271        | -0.7735  |
| DJI      | 0.0965      | 0.1769    | 0.55   | 0.5860 | -0.2503        | 0.4432   |
| DZA      | -2.2573     | 0.1322    | -17.08 | 0.0000 | -2.5164        | -1.9982  |
| EGY      | -3.1233     | 0.1213    | -25.74 | 0.0000 | -3.3611        | -2.8855  |
| ERI      | -0.6738     | 0.1265    | -5.33  | 0.0000 | -0.9217        | -0.4260  |
| ESP      | 1.7301      | 0.2623    | 6.60   | 0.0000 | 1.2160         | 2.2441   |
| ETH      | -2.1392     | 0.1317    | -16.24 | 0.0000 | -2.3973        | -1.8810  |
| GAB      | -1.2838     | 0.1207    | -10.64 | 0.0000 | -1.5204        | -1.0473  |
| GHA      | -2.2301     | 0.1179    | -18.92 | 0.0000 | -2.4612        | -1.9991  |
| GIN      | -2.5632     | 0.1313    | -19.53 | 0.0000 | -2.8205        | -2.3059  |
| GMB      | -1.9072     | 0.1761    | -10.83 | 0.0000 | -2.2524        | -1.5621  |
| GNB      | -3.0229     | 0.1316    | -22.98 | 0.0000 | -3.2807        | -2.7650  |
| GNQ      | -1.8359     | 0.2277    | -8.06  | 0.0000 | -2.2822        | -1.3895  |
| KEN      | -1.5440     | 0.1102    | -14.01 | 0.0000 | -1.7601        | -1.3280  |
| LBR      | -2.8620     | 0.1563    | -18.31 | 0.0000 | -3.1684        | -2.5556  |
| LBY      | -2.4307     | 0.1470    | -16.54 | 0.0000 | -2.7188        | -2.1426  |
| MAR      | -3.6233     | 0.1375    | -26.35 | 0.0000 | -3.8929        | -3.3538  |
| MDG      | 1.2369      | 0.1377    | 8.98   | 0.0000 | 0.9671         | 1.5067   |
| MLI      | -1.5973     | 0.1205    | -13.26 | 0.0000 | -1.8335        | -1.3612  |
| MOZ      | -1.2975     | 0.0556    | -23.32 | 0.0000 | -1.4065        | -1.1884  |
| MRT      | -3.5234     | 0.1528    | -23.06 | 0.0000 | -3.8228        | -3.2239  |
| NAM      | -0.1086     | 0.0982    | -1.11  | 0.2690 | -0.3011        | 0.0839   |
| NER      | -6.2805     | 0.4254    | -14.76 | 0.0000 | -7.1143        | -5.4467  |
| NGA      | -1.0559     | 0.1143    | -9.24  | 0.0000 | -1.2800        | -0.8319  |
| SDN      | -2.3771     | 0.1125    | -21.13 | 0.0000 | -2.5976        | -2.1567  |
| SEN      | -2.4915     | 0.1179    | -21.13 | 0.0000 | -2.7226        | -2.2604  |
| SOM      | -1.6677     | 0.1183    | -14.09 | 0.0000 | -1.8997        | -1.4358  |
| SSD      | 0.1200      | 0.1064    | 1.13   | 0.2590 | -0.0886        | 0.3285   |
| TCD      | -2.8398     | 0.1434    | -19.80 | 0.0000 | -3.1209        | -2.5587  |
| TGO      | -1.3639     | 0.1657    | -8.23  | 0.0000 | -1.6886        | -1.0392  |
| TUN      | -1.9461     | 0.1489    | -13.07 | 0.0000 | -2.2380        | -1.6542  |
| TZA      | 0.6406      | 0.1147    | 5.58   | 0.0000 | 0.4157         | 0.8655   |
| UGA      | 0.8831      | 0.1369    | 6.45   | 0.0000 | 0.6148         | 1.1514   |
| ZAF      | -0.5864     | 0.1034    | -5.67  | 0.0000 | -0.7891        | -0.3838  |
| ZMB      | -0.3852     | 0.0988    | -3.90  | 0.0000 | -0.5788        | -0.1916  |
| ZWE      | -0.6710     | 0.1083    | -6.20  | 0.0000 | -0.8832        | -0.4587  |

*Notes:* The table estimates the probability of missionary settlement through a logistic regression, where the treatment probability depends on pre-settlement covariates. Matching is restricted to the common-support region, with a calliper of 0.01 on the estimated logit, and is performed without replacement using one nearest neighbour per treated unit. The regression sample consists of grid cells with positive common-support weights.

Table G.2: Propensity score matching test results

| Variable                      | Sample    | Treated   | Control   | %Bias   | % $\Delta$ bias | t-test  | p-value | V(T)/V(C) |
|-------------------------------|-----------|-----------|-----------|---------|-----------------|---------|---------|-----------|
| Latitude                      | Unmatched | 13.7060   | 18.0480   | -47.80  |                 | -120.64 | 0.00    | 1.53*     |
|                               | Matched   | 14.1760   | 13.5200   | 7.20    | 84.90           | 9.70    | 0.00    | 1.10*     |
| Ruggedness                    | Unmatched | 59.9860   | 34.2570   | 36.60   |                 | 92.42   | 0.00    | 1.59*     |
|                               | Matched   | 50.3690   | 53.5480   | -4.50   | 87.60           | -5.33   | 0.00    | 0.80*     |
| Elevation                     | Unmatched | 739.3800  | 535.0800  | 46.60   |                 | 118.40  | 0.00    | 1.85*     |
|                               | Matched   | 671.8000  | 699.5000  | -6.30   | 86.40           | -7.33   | 0.00    | 0.92*     |
| Distance to river             | Unmatched | 110.7700  | 401.4800  | -106.20 |                 | -253.60 | 0.00    | 0.16*     |
|                               | Matched   | 142.2900  | 118.5200  | 8.70    | 91.80           | 19.64   | 0.00    | 1.85*     |
| Distance to coast             | Unmatched | 507.2900  | 744.1800  | -55.50  |                 | -137.26 | 0.00    | 0.78*     |
|                               | Matched   | 535.0900  | 522.3600  | 3.00    | 94.60           | 4.43    | 0.00    | 1.26*     |
| Distance to railway           | Unmatched | 397.4700  | 631.8800  | -67.20  |                 | -167.30 | 0.00    | 0.97*     |
|                               | Matched   | 436.2400  | 424.6900  | 3.30    | 95.10           | 4.79    | 0.00    | 1.36*     |
| Distance to explorer route    | Unmatched | 206.9100  | 180.7600  | 12.40   |                 | 31.75   | 0.00    | 2.59*     |
|                               | Matched   | 182.0900  | 194.1100  | -5.70   | 54.00           | -8.18   | 0.00    | 1.31*     |
| Distance to pre-colonial city | Unmatched | 644.0000  | 729.5700  | -22.30  |                 | -56.39  | 0.00    | 1.53*     |
|                               | Matched   | 639.8900  | 636.7700  | 0.80    | 96.40           | 0.94    | 0.35    | 0.98*     |
| Distance to Muslim seat       | Unmatched | 1354.6000 | 737.3100  | 79.50   |                 | 202.51  | 0.00    | 2.05*     |
|                               | Matched   | 1130.4000 | 1179.8000 | -6.40   | 92.00           | -7.52   | 0.00    | 1.01      |
| Distance to mine              | Unmatched | 166.9600  | 300.0500  | -81.10  |                 | -197.99 | 0.00    | 0.48*     |
|                               | Matched   | 195.7500  | 187.8800  | 4.80    | 94.10           | 8.18    | 0.00    | 1.34*     |
| Land suitability              | Unmatched | 0.2964    | 0.1064    | 84.30   |                 | 213.00  | 0.00    | 1.55*     |
|                               | Matched   | 0.2540    | 0.2813    | -12.10  | 85.70           | -14.23  | 0.00    | 0.88*     |
| Rainfall                      | Unmatched | 1020.8000 | 353.5400  | 125.70  |                 | 317.85  | 0.00    | 1.59*     |
|                               | Matched   | 825.0700  | 905.7400  | -15.20  | 87.90           | -20.17  | 0.00    | 1.01      |
| Temperature                   | Unmatched | 22.6060   | 24.9510   | -70.90  |                 | -178.02 | 0.00    | 1.27*     |
|                               | Matched   | 23.5540   | 23.3690   | 5.60    | 92.10           | 7.27    | 0.00    | 0.93*     |
| Malaria ecology               | Unmatched | 10.4440   | 6.9715    | 36.50   |                 | 90.61   | 0.00    | 0.91*     |
|                               | Matched   | 11.6600   | 12.2060   | -5.70   | 84.30           | -7.26   | 0.00    | 1.04*     |
| Tsetse fly                    | Unmatched | 1.9238    | 1.2859    | 39.80   |                 | 101.17  | 0.00    | 1.96*     |
|                               | Matched   | 2.0379    | 2.1449    | -6.70   | 83.20           | -8.07   | 0.00    | 0.87*     |

Table G.2: Propensity score matching test results (continued)

| Variable  | Sample    | Treated | Control | %bias  | %Δ bias | t-test  | p-value | V(T)/V(C) |
|-----------|-----------|---------|---------|--------|---------|---------|---------|-----------|
| Coloniser |           |         |         |        |         |         |         |           |
| Britain   | Unmatched | 0.3495  | 0.2899  | 12.80  |         | 32.01   | 0.00    | .         |
|           | Matched   | 0.2904  | 0.2606  | 6.40   | 49.90   | 8.90    | 0.00    | .         |
| France    | Unmatched | 0.2049  | 0.4786  | -60.30 |         | -148.39 | 0.00    | .         |
|           | Matched   | 0.2614  | 0.2476  | 3.00   | 95.00   | 4.22    | 0.00    | .         |
| Portugal  | Unmatched | 0.1030  | 0.0437  | 22.90  |         | 58.40   | 0.00    | .         |
|           | Matched   | 0.1466  | 0.1635  | -6.50  | 71.40   | -6.25   | 0.00    | .         |
| Italy     | Unmatched | 0.0110  | 0.0824  | -34.30 |         | -81.93  | 0.00    | .         |
|           | Matched   | 0.0261  | 0.0144  | 5.60   | 83.70   | 10.92   | 0.00    | .         |
| Belgium   | Unmatched | 0.1488  | 0.0172  | 49.10  |         | 128.67  | 0.00    | .         |
|           | Matched   | 0.0687  | 0.0740  | -2.00  | 96.00   | -2.76   | 0.01    | .         |
| Spain     | Unmatched | 0.0044  | 0.0038  | 0.90   |         | 2.22    | 0.03    | .         |
|           | Matched   | 0.0043  | 0.0044  | 0.00   | 97.60   | -0.03   | 0.98    | .         |
| Germany   | Unmatched | 0.1390  | 0.0395  | 35.40  |         | 91.25   | 0.00    | .         |
|           | Matched   | 0.1315  | 0.1640  | -11.60 | 67.30   | -12.27  | 0.00    | .         |
| Country   |           |         |         |        |         |         |         |           |
| BEN       | Unmatched | 0.0024  | 0.0054  | -4.90  |         | -11.97  | 0.00    | .         |
|           | Matched   | 0.0068  | 0.0034  | 5.50   | -11.60  | 6.34    | 0.00    | .         |
| BFA       | Unmatched | 0.0106  | 0.0066  | 4.30   |         | 10.92   | 0.00    | .         |
|           | Matched   | 0.0200  | 0.0195  | 0.50   | 87.40   | 0.48    | 0.63    | .         |
| BWA       | Unmatched | 0.0091  | 0.0273  | -13.60 |         | -32.91  | 0.00    | .         |
|           | Matched   | 0.0245  | 0.0102  | 10.70  | 21.00   | 14.40   | 0.00    | .         |
| CAF       | Unmatched | 0.0141  | 0.0229  | -6.60  |         | -16.23  | 0.00    | .         |
|           | Matched   | 0.0375  | 0.0293  | 6.10   | 6.90    | 6.11    | 0.00    | .         |
| CIV       | Unmatched | 0.0130  | 0.0094  | 3.30   |         | 8.40    | 0.00    | .         |
|           | Matched   | 0.0279  | 0.0332  | -5.00  | -48.90  | -4.07   | 0.00    | .         |
| CMR       | Unmatched | 0.0237  | 0.0138  | 7.30   |         | 18.42   | 0.00    | .         |
|           | Matched   | 0.0354  | 0.0450  | -7.00  | 3.10    | -6.51   | 0.00    | .         |
| COD       | Unmatched | 0.1466  | 0.0168  | 48.80  |         | 127.71  | 0.00    | .         |
|           | Matched   | 0.0671  | 0.0726  | -2.10  | 95.70   | -2.89   | 0.00    | .         |
| COG       | Unmatched | 0.0180  | 0.0047  | 12.60  |         | 32.64   | 0.00    | .         |
|           | Matched   | 0.0154  | 0.0200  | -4.40  | 65.40   | -4.68   | 0.00    | .         |
| DJI       | Unmatched | 0.0014  | 0.0007  | 2.00   |         | 5.20    | 0.00    | .         |
|           | Matched   | 0.0026  | 0.0031  | -1.40  | 33.30   | -1.10   | 0.27    | .         |
| DZA       | Unmatched | 0.0315  | 0.1242  | -35.10 |         | -84.74  | 0.00    | .         |
|           | Matched   | 0.0429  | 0.0363  | 2.50   | 92.90   | 4.51    | 0.00    | .         |
| EGY       | Unmatched | 0.0200  | 0.0450  | -14.10 |         | -34.49  | 0.00    | .         |
|           | Matched   | 0.0429  | 0.0265  | 9.20   | 34.60   | 11.82   | 0.00    | .         |
| ERI       | Unmatched | 0.0071  | 0.0051  | 2.60   |         | 6.53    | 0.00    | .         |
|           | Matched   | 0.0141  | 0.0166  | -3.20  | -21.70  | -2.68   | 0.01    | .         |
| ESP       | Unmatched | 0.0007  | 0.0006  | 0.60   |         | 1.58    | 0.11    | .         |
|           | Matched   | 0.0019  | 0.0018  | 0.30   | 44.60   | 0.28    | 0.78    | .         |
| ETH       | Unmatched | 0.0282  | 0.0413  | -7.20  |         | -17.71  | 0.00    | .         |
|           | Matched   | 0.0630  | 0.0632  | -0.10  | 99.20   | -0.06   | 0.95    | .         |
| GAB       | Unmatched | 0.0153  | 0.0035  | 12.30  |         | 31.88   | 0.00    | .         |
|           | Matched   | 0.0110  | 0.0150  | -4.20  | 65.70   | -4.81   | 0.00    | .         |
| GHA       | Unmatched | 0.0135  | 0.0034  | 11.00  |         | 28.55   | 0.00    | .         |
|           | Matched   | 0.0133  | 0.0145  | -1.30  | 88.20   | -1.35   | 0.18    | .         |
| GIN       | Unmatched | 0.0157  | 0.0022  | 14.40  |         | 37.74   | 0.00    | .         |
|           | Matched   | 0.0080  | 0.0083  | -0.40  | 97.40   | -0.53   | 0.60    | .         |
| GMB       | Unmatched | 0.0013  | 0.0007  | 1.90   |         | 4.76    | 0.00    | .         |
|           | Matched   | 0.0014  | 0.0016  | -0.50  | 72.90   | -0.56   | 0.58    | .         |

Table G.2: Propensity score matching test results (continued)

| Variable | Sample    | Treated | Control | %bias  | %Δ bias | t-test  | p-value | V(T)/V(C) |
|----------|-----------|---------|---------|--------|---------|---------|---------|-----------|
| GNB      | Unmatched | 0.0027  | 0.0009  | 4.10   |         | 10.59   | 0.00    | .         |
|          | Matched   | 0.0041  | 0.0037  | 0.80   | 80.30   | 0.73    | 0.47    | .         |
| GNQ      | Unmatched | 0.0018  | 0.0005  | 4.00   |         | 10.35   | 0.00    | .         |
|          | Matched   | 0.0014  | 0.0019  | -1.30  | 67.40   | -1.45   | 0.15    | .         |
| KEN      | Unmatched | 0.0222  | 0.0172  | 3.60   |         | 8.96    | 0.00    | .         |
|          | Matched   | 0.0198  | 0.0140  | 4.10   | -16.10  | 5.91    | 0.00    | .         |
| LBR      | Unmatched | 0.0073  | 0.0009  | 9.90   |         | 26.01   | 0.00    | .         |
|          | Matched   | 0.0035  | 0.0039  | -0.60  | 94.30   | -0.78   | 0.43    | .         |
| LBY      | Unmatched | 0.0049  | 0.1022  | -44.30 |         | -104.79 | 0.00    | .         |
|          | Matched   | 0.0139  | 0.0032  | 4.90   | 89.00   | 15.20   | 0.00    | .         |
| MAR      | Unmatched | 0.0152  | 0.0193  | -3.10  |         | -7.74   | 0.00    | .         |
|          | Matched   | 0.0238  | 0.0234  | 0.30   | 89.20   | 0.38    | 0.70    | .         |
| MDG      | Unmatched | 0.0437  | 0.0041  | 26.20  |         | 68.79   | 0.00    | .         |
|          | Matched   | 0.0179  | 0.0176  | 0.20   | 99.10   | 0.37    | 0.72    | .         |
| MLI      | Unmatched | 0.0167  | 0.0597  | -22.50 |         | -54.40  | 0.00    | .         |
|          | Matched   | 0.0277  | 0.0270  | 0.40   | 98.30   | 0.58    | 0.56    | .         |
| MOZ      | Unmatched | 0.0423  | 0.0199  | 12.90  |         | 32.97   | 0.00    | .         |
|          | Matched   | 0.0604  | 0.0734  | -7.50  | 41.90   | -6.98   | 0.00    | .         |
| MRT      | Unmatched | 0.0009  | 0.0621  | -35.60 |         | -83.91  | 0.00    | .         |
|          | Matched   | 0.0025  | 0.0002  | 1.40   | 96.20   | 8.22    | 0.00    | .         |
| NAM      | Unmatched | 0.0432  | 0.0183  | 14.40  |         | 36.88   | 0.00    | .         |
|          | Matched   | 0.0633  | 0.0783  | -8.70  | 39.70   | -7.82   | 0.00    | .         |
| NER      | Unmatched | 0.0001  | 0.0687  | -38.40 |         | -90.29  | 0.00    | .         |
|          | Matched   | 0.0002  | 0.0000  | 0.10   | 99.80   | 2.26    | 0.02    | .         |
| NGA      | Unmatched | 0.0529  | 0.0131  | 22.40  |         | 57.99   | 0.00    | .         |
|          | Matched   | 0.0345  | 0.0430  | -4.80  | 78.70   | -5.88   | 0.00    | .         |
| SDN      | Unmatched | 0.0136  | 0.1004  | -38.10 |         | -90.94  | 0.00    | .         |
|          | Matched   | 0.0389  | 0.0259  | 5.70   | 85.00   | 9.71    | 0.00    | .         |
| SEN      | Unmatched | 0.0064  | 0.0060  | 0.60   |         | 1.40    | 0.16    | .         |
|          | Matched   | 0.0149  | 0.0157  | -1.10  | -89.50  | -0.91   | 0.37    | .         |
| SOM      | Unmatched | 0.0053  | 0.0355  | -21.40 |         | -51.21  | 0.00    | .         |
|          | Matched   | 0.0151  | 0.0065  | 6.20   | 71.30   | 10.99   | 0.00    | .         |
| SSD      | Unmatched | 0.0252  | 0.0151  | 7.20   |         | 18.26   | 0.00    | .         |
|          | Matched   | 0.0471  | 0.0513  | -3.00  | 58.80   | -2.58   | 0.01    | .         |
| TCD      | Unmatched | 0.0013  | 0.0722  | -38.40 |         | -90.50  | 0.00    | .         |
|          | Matched   | 0.0036  | 0.0005  | 1.70   | 95.50   | 9.11    | 0.00    | .         |
| TGO      | Unmatched | 0.0036  | 0.0008  | 6.10   |         | 15.83   | 0.00    | .         |
|          | Matched   | 0.0016  | 0.0024  | -1.70  | 71.60   | -2.41   | 0.02    | .         |
| TUN      | Unmatched | 0.0083  | 0.0055  | 3.40   |         | 8.54    | 0.00    | .         |
|          | Matched   | 0.0095  | 0.0107  | -1.60  | 53.90   | -1.73   | 0.08    | .         |
| TZA      | Unmatched | 0.0629  | 0.0054  | 32.10  |         | 84.32   | 0.00    | .         |
|          | Matched   | 0.0213  | 0.0233  | -1.10  | 96.60   | -1.79   | 0.07    | .         |
| UGA      | Unmatched | 0.0137  | 0.0009  | 15.10  |         | 39.96   | 0.00    | .         |
|          | Matched   | 0.0035  | 0.00    | -0.10  | 99.10   | -0.25   | 0.80    | .         |
| ZAF      | Unmatched | 0.0976  | 0.0052  | 42.80  |         | 113.07  | 0.00    | .         |
|          | Matched   | 0.0178  | 0.0223  | -2.10  | 95.10   | -4.37   | 0.00    | .         |
| ZMB      | Unmatched | 0.0464  | 0.0059  | 25.60  |         | 66.93   | 0.00    | .         |
|          | Matched   | 0.0217  | 0.0256  | -2.50  | 90.30   | -3.46   | 0.00    | .         |
| ZWE      | Unmatched | 0.0253  | 0.0028  | 19.20  |         | 50.40   | 0.00    | .         |
|          | Matched   | 0.0101  | 0.0121  | -1.70  | 91.20   | -2.54   | 0.01    | .         |

*Notes:* The table presents the results of t-tests and bias between matched and unmatched sample means, comparing treated and control groups. The matching procedure uses one-to-one nearest-neighbour matching with a *caliper* of 0.01 on the estimated logit, restricted to the *common-support* region.

Table G.3: Common support table

| Treatment assignment | Off support | On support | Total   |
|----------------------|-------------|------------|---------|
| Untreated            | 102,329     | 39,341     | 141,670 |
| Treated              | 72,018      | 38,722     | 110,740 |
| Total                | 174,347     | 78,063     | 252,410 |

*Notes:* The table displays the distribution of treated and untreated units based on their *common support*.

Table G.4: Balance diagnostics

| Sample    | Pseudo- $R^2$ | LR $\chi^2$ | P> $\chi^2$ | Mean bias | Median bias | Rubin's B | Rubin's R | %Var |
|-----------|---------------|-------------|-------------|-----------|-------------|-----------|-----------|------|
| Unmatched | 0.505         | 174,913.30  | 0           | 28        | 21.4        | 202.2*    | 0.26*     | 100  |
| Matched   | 0.033         | 3,254.98    | 0           | 4         | 3.2         | 43.1*     | 1.86      | 87   |

*Notes:* Pseudo- $R^2$ , LR  $\chi^2$  and  $p > \chi^2$  test how well covariates predict treatment. Mean/Median bias is the average/median standardised difference in covariate means between treated and controls. Rubin's  $B$  is the absolute difference in the means of the propensity-score index; Rubin's  $R$  is the ratio of its variances. %Var shows the per cent reduction in overall bias from unmatched to matched. Asterisks (\*) indicate statistics that exceed commonly used balance thresholds.

Table G.5: Night light by distance to the nearest mission station and homeland border:  
Propensity Score Matching

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 0-10 km         | 0.0022  | 0.0011    | 2.1  | 0.037 | 0.0001         | 0.0043   |
| 5-10 km         | 0-10 km         | 0.0012  | 0.0009    | 1.4  | 0.173 | -0.0005        | 0.0029   |
| 10-15 km        | 0-10 km         | 0.0012  | 0.0010    | 1.2  | 0.221 | -0.0007        | 0.0031   |
| 15-20 km        | 0-10 km         | 0.0017  | 0.0012    | 1.5  | 0.140 | -0.0006        | 0.0040   |
| 20-25 km        | 0-10 km         | 0.0040  | 0.0016    | 2.6  | 0.009 | 0.0010         | 0.0071   |
| 25-30 km        | 0-10 km         | 0.0044  | 0.0015    | 2.9  | 0.003 | 0.0015         | 0.0074   |
| 30-35 km        | 0-10 km         | 0.0057  | 0.0019    | 2.9  | 0.003 | 0.0019         | 0.0094   |
| 35-40 km        | 0-10 km         | 0.0040  | 0.0016    | 2.5  | 0.011 | 0.0009         | 0.0071   |
| 40-45 km        | 0-10 km         | 0.0076  | 0.0028    | 2.7  | 0.006 | 0.0022         | 0.0130   |
| 45-50 km        | 0-10 km         | 0.0074  | 0.0024    | 3.0  | 0.002 | 0.0026         | 0.0121   |
| >50 km          | 0-10 km         | 0.0078  | 0.0010    | 7.8  | 0.000 | 0.0058         | 0.0098   |
| 0-5 km          | 10-20 km        | 0.0000  | 0.0003    | 0.0  | 0.998 | -0.0007        | 0.0007   |
| 5-10 km         | 10-20 km        | -0.0003 | 0.0003    | -1.1 | 0.269 | -0.0009        | 0.0002   |
| 10-15 km        | 10-20 km        | 0.0008  | 0.0005    | 1.6  | 0.104 | -0.0002        | 0.0018   |
| 15-20 km        | 10-20 km        | 0.0004  | 0.0004    | 0.9  | 0.359 | -0.0004        | 0.0012   |
| 20-25 km        | 10-20 km        | 0.0007  | 0.0005    | 1.3  | 0.196 | -0.0004        | 0.0018   |
| 25-30 km        | 10-20 km        | 0.0015  | 0.0007    | 2.0  | 0.043 | 0.0000         | 0.0029   |
| 30-35 km        | 10-20 km        | 0.0011  | 0.0007    | 1.7  | 0.089 | -0.0002        | 0.0025   |
| 35-40 km        | 10-20 km        | 0.0021  | 0.0008    | 2.5  | 0.012 | 0.0005         | 0.0038   |
| 40-45 km        | 10-20 km        | 0.0023  | 0.0009    | 2.5  | 0.013 | 0.0005         | 0.0041   |
| 45-50 km        | 10-20 km        | 0.0031  | 0.0012    | 2.6  | 0.009 | 0.0008         | 0.0054   |
| >50 km          | 10-20 km        | 0.0022  | 0.0005    | 4.7  | 0.000 | 0.0013         | 0.0031   |
| 0-5 km          | 20-30 km        | -0.0008 | 0.0002    | -4.8 | 0.000 | -0.0011        | -0.0005  |
| 5-10 km         | 20-30 km        | -0.0003 | 0.0002    | -1.6 | 0.107 | -0.0008        | 0.0001   |
| 10-15 km        | 20-30 km        | -0.0001 | 0.0002    | -0.6 | 0.578 | -0.0006        | 0.0003   |
| 15-20 km        | 20-30 km        | -0.0003 | 0.0003    | -0.8 | 0.403 | -0.0009        | 0.0004   |
| 20-25 km        | 20-30 km        | -0.0008 | 0.0002    | -4.2 | 0.000 | -0.0012        | -0.0004  |
| 25-30 km        | 20-30 km        | -0.0005 | 0.0003    | -1.4 | 0.150 | -0.0011        | 0.0002   |
| 30-35 km        | 20-30 km        | 0.0000  | 0.0004    | 0.1  | 0.896 | -0.0007        | 0.0008   |
| 35-40 km        | 20-30 km        | 0.0000  | 0.0005    | 0.0  | 1.000 | -0.0010        | 0.0010   |
| 40-45 km        | 20-30 km        | 0.0000  | 0.0003    | 0.0  | 0.963 | -0.0007        | 0.0007   |
| 45-50 km        | 20-30 km        | -0.0004 | 0.0003    | -1.5 | 0.131 | -0.0009        | 0.0001   |
| >50 km          | 20-30 km        | 0.0008  | 0.0003    | 2.9  | 0.004 | 0.0003         | 0.0014   |
| 0-5 km          | 30-40 km        | -0.0004 | 0.0001    | -3.2 | 0.001 | -0.0007        | -0.0002  |
| 5-10 km         | 30-40 km        | -0.0004 | 0.0002    | -2.4 | 0.015 | -0.0008        | -0.0001  |
| 10-15 km        | 30-40 km        | -0.0004 | 0.0001    | -2.6 | 0.009 | -0.0007        | -0.0001  |
| 15-20 km        | 30-40 km        | -0.0007 | 0.0002    | -4.2 | 0.000 | -0.0010        | -0.0004  |
| 20-25 km        | 30-40 km        | -0.0004 | 0.0002    | -1.8 | 0.067 | -0.0007        | 0.0000   |
| 25-30 km        | 30-40 km        | -0.0008 | 0.0002    | -3.4 | 0.001 | -0.0013        | -0.0003  |
| 30-35 km        | 30-40 km        | -0.0009 | 0.0002    | -4.4 | 0.000 | -0.0013        | -0.0005  |
| 35-40 km        | 30-40 km        | -0.0008 | 0.0003    | -2.9 | 0.004 | -0.0014        | -0.0003  |
| 40-45 km        | 30-40 km        | -0.0007 | 0.0002    | -3.1 | 0.002 | -0.0011        | -0.0003  |
| 45-50 km        | 30-40 km        | -0.0003 | 0.0006    | -0.5 | 0.617 | -0.0014        | 0.0008   |
| >50 km          | 30-40 km        | 0.0008  | 0.0003    | 2.8  | 0.005 | 0.0002         | 0.0013   |

Table G.1: Night light by distance to the nearest mission station and homeland border:  
Propensity Score Matching (continued)

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 40-50 km        | -0.0004 | 0.0002    | -2.4 | 0.017 | -0.0008        | -0.0001  |
| 5-10 km         | 40-50 km        | -0.0004 | 0.0001    | -3.4 | 0.001 | -0.0007        | -0.0002  |
| 10-15 km        | 40-50 km        | -0.0003 | 0.0001    | -2.1 | 0.033 | -0.0006        | 0.0000   |
| 15-20 km        | 40-50 km        | -0.0004 | 0.0002    | -2.5 | 0.014 | -0.0008        | -0.0001  |
| 20-25 km        | 40-50 km        | -0.0007 | 0.0002    | -3.3 | 0.001 | -0.0011        | -0.0003  |
| 25-30 km        | 40-50 km        | -0.0004 | 0.0002    | -2.3 | 0.022 | -0.0008        | -0.0001  |
| 30-35 km        | 40-50 km        | -0.0006 | 0.0003    | -2.4 | 0.019 | -0.0011        | -0.0001  |
| 35-40 km        | 40-50 km        | -0.0009 | 0.0003    | -3.5 | 0.001 | -0.0014        | -0.0004  |
| 40-45 km        | 40-50 km        | -0.0013 | 0.0003    | -5.1 | 0.000 | -0.0018        | -0.0008  |
| 45-50 km        | 40-50 km        | -0.0006 | 0.0004    | -1.4 | 0.175 | -0.0014        | 0.0003   |
| >50 km          | 40-50 km        | -0.0001 | 0.0002    | -0.7 | 0.490 | -0.0005        | 0.0002   |
| 0-5 km          | 50-60 km        | -0.0002 | 0.0002    | -1.0 | 0.304 | -0.0005        | 0.0001   |
| 5-10 km         | 50-60 km        | -0.0002 | 0.0001    | -1.5 | 0.122 | -0.0005        | 0.0001   |
| 10-15 km        | 50-60 km        | -0.0004 | 0.0001    | -2.5 | 0.012 | -0.0006        | -0.0001  |
| 15-20 km        | 50-60 km        | -0.0002 | 0.0002    | -1.1 | 0.267 | -0.0006        | 0.0002   |
| 20-25 km        | 50-60 km        | -0.0003 | 0.0001    | -2.3 | 0.019 | -0.0006        | -0.0001  |
| 25-30 km        | 50-60 km        | -0.0005 | 0.0002    | -2.2 | 0.027 | -0.0009        | -0.0001  |
| 30-35 km        | 50-60 km        | -0.0008 | 0.0002    | -4.5 | 0.000 | -0.0011        | -0.0004  |
| 35-40 km        | 50-60 km        | -0.0008 | 0.0002    | -4.4 | 0.000 | -0.0012        | -0.0004  |
| 40-45 km        | 50-60 km        | -0.0010 | 0.0003    | -3.6 | 0.000 | -0.0015        | -0.0004  |
| 45-50 km        | 50-60 km        | -0.0010 | 0.0003    | -3.5 | 0.000 | -0.0015        | -0.0004  |
| >50 km          | 50-60 km        | -0.0001 | 0.0002    | -0.4 | 0.675 | -0.0004        | 0.0003   |
| 0-5 km          | 60-70 km        | -0.0003 | 0.0002    | -1.7 | 0.086 | -0.0006        | 0.0000   |
| 5-10 km         | 60-70 km        | -0.0002 | 0.0002    | -0.9 | 0.361 | -0.0006        | 0.0002   |
| 10-15 km        | 60-70 km        | -0.0005 | 0.0001    | -3.9 | 0.000 | -0.0008        | -0.0003  |
| 15-20 km        | 60-70 km        | -0.0005 | 0.0002    | -2.9 | 0.004 | -0.0009        | -0.0002  |
| 20-25 km        | 60-70 km        | -0.0006 | 0.0001    | -4.0 | 0.000 | -0.0009        | -0.0003  |
| 25-30 km        | 60-70 km        | -0.0006 | 0.0002    | -3.4 | 0.001 | -0.0010        | -0.0003  |
| 30-35 km        | 60-70 km        | -0.0003 | 0.0002    | -1.8 | 0.070 | -0.0007        | 0.0000   |
| 35-40 km        | 60-70 km        | -0.0006 | 0.0002    | -2.7 | 0.008 | -0.0010        | -0.0002  |
| 40-45 km        | 60-70 km        | -0.0005 | 0.0002    | -2.6 | 0.009 | -0.0008        | -0.0001  |
| 45-50 km        | 60-70 km        | -0.0008 | 0.0002    | -3.8 | 0.000 | -0.0011        | -0.0004  |
| >50 km          | 60-70 km        | -0.0001 | 0.0002    | -0.4 | 0.704 | -0.0004        | 0.0002   |
| 0-5 km          | 70-80 km        | 0.0000  | 0.0002    | -0.1 | 0.911 | -0.0004        | 0.0003   |
| 5-10 km         | 70-80 km        | -0.0002 | 0.0002    | -1.1 | 0.252 | -0.0006        | 0.0002   |
| 10-15 km        | 70-80 km        | -0.0004 | 0.0002    | -2.1 | 0.038 | -0.0007        | 0.0000   |
| 15-20 km        | 70-80 km        | -0.0006 | 0.0001    | -4.2 | 0.000 | -0.0009        | -0.0003  |
| 20-25 km        | 70-80 km        | -0.0003 | 0.0001    | -2.1 | 0.033 | -0.0006        | 0.0000   |
| 25-30 km        | 70-80 km        | -0.0006 | 0.0002    | -3.6 | 0.000 | -0.0009        | -0.0003  |
| 30-35 km        | 70-80 km        | -0.0005 | 0.0002    | -2.5 | 0.011 | -0.0009        | -0.0001  |
| 35-40 km        | 70-80 km        | -0.0002 | 0.0002    | -1.3 | 0.205 | -0.0006        | 0.0001   |
| 40-45 km        | 70-80 km        | -0.0003 | 0.0002    | -1.2 | 0.247 | -0.0007        | 0.0002   |
| 45-50 km        | 70-80 km        | 0.0001  | 0.0004    | 0.2  | 0.846 | -0.0007        | 0.0009   |
| >50 km          | 70-80 km        | -0.0001 | 0.0002    | -0.3 | 0.754 | -0.0004        | 0.0003   |

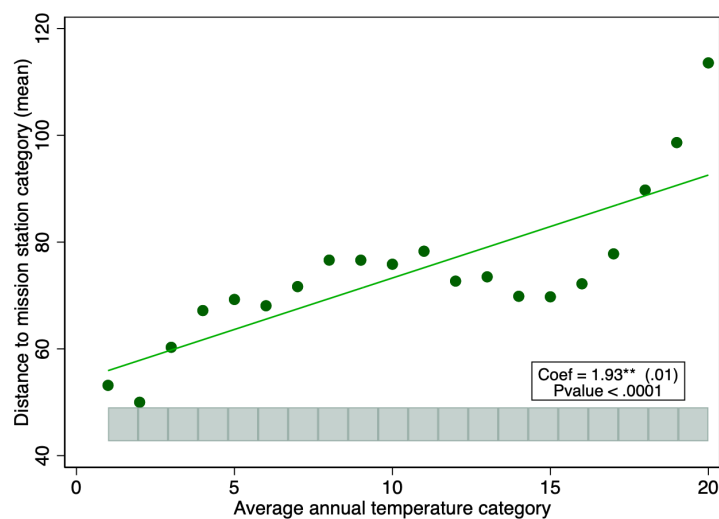
Table G.1: Night light by distance to the nearest mission station and homeland border:  
Propensity Score Matching (continued)

| Homeland border         | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-------------------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km                  | 80-90 km        | -0.0001 | 0.0001    | -0.7 | 0.510 | -0.0004        | 0.0002   |
| 5-10 km                 | 80-90 km        | -0.0006 | 0.0001    | -4.2 | 0.000 | -0.0008        | -0.0003  |
| 10-15 km                | 80-90 km        | -0.0003 | 0.0001    | -2.0 | 0.041 | -0.0006        | 0.0000   |
| 15-20 km                | 80-90 km        | -0.0004 | 0.0002    | -2.9 | 0.004 | -0.0007        | -0.0001  |
| 20-25 km                | 80-90 km        | -0.0002 | 0.0002    | -1.2 | 0.249 | -0.0005        | 0.0001   |
| 25-30 km                | 80-90 km        | 0.0000  | 0.0002    | -0.2 | 0.867 | -0.0003        | 0.0003   |
| 30-35 km                | 80-90 km        | 0.0001  | 0.0001    | 0.4  | 0.721 | -0.0002        | 0.0003   |
| 35-40 km                | 80-90 km        | -0.0001 | 0.0003    | -0.3 | 0.753 | -0.0006        | 0.0004   |
| 40-45 km                | 80-90 km        | -0.0002 | 0.0003    | -0.6 | 0.551 | -0.0007        | 0.0004   |
| 45-50 km                | 80-90 km        | 0.0006  | 0.0004    | 1.6  | 0.106 | -0.0001        | 0.0014   |
| >50 km                  | 80-90 km        | -0.0001 | 0.0001    | -0.4 | 0.680 | -0.0003        | 0.0002   |
| 0-5 km                  | 90-100 km       | -0.0002 | 0.0001    | -1.7 | 0.087 | -0.0005        | 0.0000   |
| 5-10 km                 | 90-100 km       | -0.0005 | 0.0001    | -3.6 | 0.000 | -0.0008        | -0.0002  |
| 10-15 km                | 90-100 km       | -0.0002 | 0.0002    | -1.5 | 0.138 | -0.0005        | 0.0001   |
| 15-20 km                | 90-100 km       | -0.0001 | 0.0001    | -0.9 | 0.350 | -0.0004        | 0.0001   |
| 20-25 km                | 90-100 km       | 0.0000  | 0.0002    | -0.3 | 0.761 | -0.0004        | 0.0003   |
| 25-30 km                | 90-100 km       | -0.0003 | 0.0002    | -2.1 | 0.035 | -0.0006        | 0.0000   |
| 30-35 km                | 90-100 km       | 0.0000  | 0.0002    | -0.2 | 0.819 | -0.0004        | 0.0003   |
| 35-40 km                | 90-100 km       | 0.0000  | 0.0003    | -0.1 | 0.924 | -0.0005        | 0.0005   |
| 40-45 km                | 90-100 km       | 0.0004  | 0.0003    | 1.3  | 0.201 | -0.0002        | 0.0010   |
| 45-50 km                | 90-100 km       | -0.0005 | 0.0003    | -1.8 | 0.066 | -0.0010        | 0.0000   |
| >50 km                  | 90-100 km       | 0.0000  | 0.0002    | 0.3  | 0.775 | -0.0003        | 0.0004   |
| 0-5 km                  | >100 km         | 0.0001  | 0.0001    | 1.0  | 0.312 | -0.0001        | 0.0002   |
| 5-10 km                 | >100 km         | 0.0001  | 0.0001    | 1.4  | 0.162 | 0.0000         | 0.0002   |
| 10-15 km                | >100 km         | 0.0001  | 0.0001    | 1.6  | 0.113 | 0.0000         | 0.0002   |
| 15-20 km                | >100 km         | 0.0001  | 0.0001    | 0.9  | 0.358 | -0.0001        | 0.0002   |
| 20-25 km                | >100 km         | 0.0001  | 0.0001    | 2.1  | 0.037 | 0.0000         | 0.0003   |
| 25-30 km                | >100 km         | 0.0001  | 0.0001    | 1.6  | 0.099 | 0.0000         | 0.0002   |
| 30-35 km                | >100 km         | 0.0002  | 0.0001    | 2.7  | 0.008 | 0.0001         | 0.0003   |
| 35-40 km                | >100 km         | 0.0002  | 0.0001    | 2.1  | 0.039 | 0.0000         | 0.0003   |
| 40-45 km                | >100 km         | 0.0006  | 0.0002    | 2.6  | 0.008 | 0.0002         | 0.0010   |
| 45-50 km                | >100 km         | 0.0003  | 0.0001    | 2.3  | 0.023 | 0.0000         | 0.0005   |
| >50 km                  | >100 km         | 0.0000  | (omitted) |      |       |                |          |
| Controls                |                 |         |           |      |       |                | Yes      |
| Coloniser fixed effects |                 |         |           |      |       |                | Yes      |
| Country fixed effects   |                 |         |           |      |       |                | Yes      |
| Std. err.               |                 |         |           |      |       |                | Robust   |
| $R^2$                   |                 |         |           |      |       |                | 0.4104   |
| N                       |                 |         |           |      |       |                | 78,063   |

*Notes:* The regression model, displayed in Equation 2, controls for latitude, ruggedness, elevation, rainfall, temperature, land suitability for agriculture, malaria, tsetse flies, population density, uninhabited grid cells, major cities, islands, Sub-Saharan Africa, as well as the geodesic distances to coasts, rivers, railways, mines, national borders, historical explorer routes, precolonial cities, Muslim seats, Protestant printing presses, and postcolonial World Bank aid projects. Gaps between the first- and second-nearest mission stations and homeland borders are also accounted for. All variables are log-linearised except binaries. The regression sample includes the grid cells contained in the balanced sample created through the propensity score matching procedure described above.

## H Instrumental variable analysis results

Figure H.1: Temperature and predicted distances to mission stations categories



*Notes:* The underlying regression model controls for factors arguably influential to missionary settlement including the distances to coasts, rivers, railways, explorer routes, mines, precolonial cities, Muslim seats, and precolonial homeland borders, as well as latitude, ruggedness, elevation, land suitability for agriculture, rainfall, malaria, tsetse flies, and whether or not the locality belonged to Sub-Saharan Africa or was on an island. The sample is restricted to grid cells located less than 200 km from a mission station.

Table H.1: Instrumental variable analysis

| Panel A:<br>Second stage              |             |                 |                      |                      |                     |                  |
|---------------------------------------|-------------|-----------------|----------------------|----------------------|---------------------|------------------|
| Night light (normalised)              | Coefficient | std. err.       | t                    | P>t                  | [95% conf.          | interval]        |
| <i>Instrumented</i>                   |             |                 |                      |                      |                     |                  |
| Distance to mission (cat.)            | -0.0001     | 0.0000          | -12.45               | 0.0000               | -0.0002             | -0.0001          |
| R2                                    |             |                 |                      |                      |                     | 0.1748           |
| N                                     |             |                 |                      |                      |                     | 159,589          |
| Panel B:<br>Reduced form              |             |                 |                      |                      |                     |                  |
| Night light (normalised)              | Coefficient | std. err.       | t                    | P>t                  | [95% conf.          | interval]        |
| <i>Instrument</i>                     |             |                 |                      |                      |                     |                  |
| Temperature (cat.)                    | -0.0002     | 0.0000          | -15.03               | 0.0000               | -0.0002             | -0.0002          |
| R2                                    |             |                 |                      |                      |                     | 0.1748           |
| N                                     |             |                 |                      |                      |                     | 159,589          |
| Panel C:<br>Reduced form<br>(>100 km) |             |                 |                      |                      |                     |                  |
| Night light (normalised)              | Coefficient | std. err.       | t                    | P>t                  | [95% conf.          | interval]        |
| <i>Instrument</i>                     |             |                 |                      |                      |                     |                  |
| Temperature (cat.)                    | 0.0000      | 0.0000          | -1.23                | 0.8180               | -0.0000             | .0000            |
| R2                                    |             |                 |                      |                      |                     | 0.2594           |
| N                                     |             |                 |                      |                      |                     | 46,693           |
| Panel D:<br>First stage               |             |                 |                      |                      |                     |                  |
| Distance to mission (cat.)            | Coefficient | Std. Err.       | z                    | P>z                  | [95% Confidence     | Interval]        |
| <i>Instrument</i>                     |             |                 |                      |                      |                     |                  |
| Temperature (cat.)                    | 1.2953      | 0.0592          | 21.89                | 0.0000               | 1.1793              | 1.4113           |
| Controls                              |             |                 |                      |                      |                     | Yes              |
| Coloniser fixed effects               |             |                 |                      |                      |                     | Yes              |
| Country fixed effects                 |             |                 |                      |                      |                     | Yes              |
| Robust std. err.                      |             |                 |                      |                      |                     | Yes              |
| N                                     |             |                 |                      |                      |                     | 159,589          |
| <i>Instrumented</i>                   |             |                 |                      |                      |                     |                  |
| Distance to mission (cat.)            |             | R-sq.<br>0.4203 | Adj. R-sq.<br>0.4200 | Par. R-sq.<br>0.0033 | F(83,257137)<br>479 | Prob>F<br>0.0000 |

*Notes:* The regression model includes the same control as the baseline model (see Equation 2) except temperature, that is, the distances to coasts, rivers, railroads, historical explorer routes, mines, precolonial cities, Muslim seats, homeland border, national borders, as well as latitude, ruggedness, elevation, land suitability for agriculture, and malaria and tsetse fly ecology, plus binaries for Sub-Saharan African and islands. The regression sample is restricted to grid cells less than 200 km from a mission station. Panel C differs from Panel B in that the former only includes grid cells more than 100 km from a mission station.

Table H.2: Night light by distance to the nearest mission station and homeland border:  
Instrumental variable: temperature

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 0-10 km         | 0.0002  | 0.0003    | 0.5  | 0.607 | -0.0005        | 0.0008   |
| 5-10 km         | 0-10 km         | -0.0003 | 0.0003    | -1.1 | 0.257 | -0.0009        | 0.0002   |
| 10-15 km        | 0-10 km         | -0.0003 | 0.0003    | -0.9 | 0.353 | -0.0009        | 0.0003   |
| 15-20 km        | 0-10 km         | 0.0009  | 0.0004    | 2.3  | 0.023 | 0.0001         | 0.0017   |
| 20-25 km        | 0-10 km         | 0.0014  | 0.0005    | 2.9  | 0.003 | 0.0005         | 0.0023   |
| 25-30 km        | 0-10 km         | 0.0019  | 0.0005    | 3.6  | 0.000 | 0.0009         | 0.0029   |
| 30-35 km        | 0-10 km         | 0.0025  | 0.0006    | 3.9  | 0.000 | 0.0012         | 0.0038   |
| 35-40 km        | 0-10 km         | 0.0015  | 0.0006    | 2.5  | 0.013 | 0.0003         | 0.0027   |
| 40-45 km        | 0-10 km         | 0.0024  | 0.0007    | 3.2  | 0.001 | 0.0010         | 0.0038   |
| 45-50 km        | 0-10 km         | 0.0029  | 0.0008    | 3.8  | 0.000 | 0.0014         | 0.0044   |
| >50 km          | 0-10 km         | 0.0025  | 0.0003    | 8.1  | 0.000 | 0.0019         | 0.0031   |
| 0-5 km          | 10-20 km        | -0.0006 | 0.0001    | -4.0 | 0.000 | -0.0009        | -0.0003  |
| 5-10 km         | 10-20 km        | -0.0005 | 0.0001    | -3.2 | 0.001 | -0.0008        | -0.0002  |
| 10-15 km        | 10-20 km        | -0.0002 | 0.0002    | -1.3 | 0.206 | -0.0006        | 0.0001   |
| 15-20 km        | 10-20 km        | -0.0005 | 0.0002    | -2.8 | 0.005 | -0.0008        | -0.0001  |
| 20-25 km        | 10-20 km        | 0.0002  | 0.0002    | 0.7  | 0.476 | -0.0003        | 0.0006   |
| 25-30 km        | 10-20 km        | 0.0002  | 0.0002    | 0.9  | 0.348 | -0.0003        | 0.0007   |
| 30-35 km        | 10-20 km        | 0.0002  | 0.0003    | 0.9  | 0.355 | -0.0003        | 0.0007   |
| 35-40 km        | 10-20 km        | 0.0007  | 0.0003    | 2.2  | 0.030 | 0.0001         | 0.0014   |
| 40-45 km        | 10-20 km        | 0.0007  | 0.0003    | 2.2  | 0.025 | 0.0001         | 0.0014   |
| 45-50 km        | 10-20 km        | 0.0005  | 0.0004    | 1.4  | 0.160 | -0.0002        | 0.0012   |
| >50 km          | 10-20 km        | 0.0006  | 0.0002    | 3.2  | 0.001 | 0.0002         | 0.0009   |
| 0-5 km          | 20-30 km        | -0.0005 | 0.0001    | -3.5 | 0.000 | -0.0007        | -0.0002  |
| 5-10 km         | 20-30 km        | -0.0005 | 0.0001    | -3.6 | 0.000 | -0.0007        | -0.0002  |
| 10-15 km        | 20-30 km        | -0.0003 | 0.0001    | -2.2 | 0.024 | -0.0006        | 0.0000   |
| 15-20 km        | 20-30 km        | -0.0004 | 0.0001    | -3.1 | 0.002 | -0.0007        | -0.0002  |
| 20-25 km        | 20-30 km        | -0.0006 | 0.0001    | -3.7 | 0.000 | -0.0008        | -0.0003  |
| 25-30 km        | 20-30 km        | -0.0006 | 0.0001    | -3.7 | 0.000 | -0.0008        | -0.0003  |
| 30-35 km        | 20-30 km        | -0.0001 | 0.0002    | -0.3 | 0.769 | -0.0005        | 0.0004   |
| 35-40 km        | 20-30 km        | -0.0004 | 0.0002    | -1.8 | 0.069 | -0.0009        | 0.0000   |
| 40-45 km        | 20-30 km        | -0.0003 | 0.0002    | -1.4 | 0.151 | -0.0007        | 0.0001   |
| 45-50 km        | 20-30 km        | -0.0004 | 0.0003    | -1.5 | 0.121 | -0.0010        | 0.0001   |
| >50 km          | 20-30 km        | -0.0001 | 0.0001    | -0.8 | 0.398 | -0.0003        | 0.0001   |
| 0-5 km          | 30-40 km        | -0.0003 | 0.0001    | -2.8 | 0.004 | -0.0005        | -0.0001  |
| 5-10 km         | 30-40 km        | -0.0005 | 0.0001    | -5.2 | 0.000 | -0.0007        | -0.0003  |
| 10-15 km        | 30-40 km        | -0.0006 | 0.0001    | -5.4 | 0.000 | -0.0008        | -0.0004  |
| 15-20 km        | 30-40 km        | -0.0005 | 0.0001    | -4.6 | 0.000 | -0.0008        | -0.0003  |
| 20-25 km        | 30-40 km        | -0.0003 | 0.0001    | -2.3 | 0.019 | -0.0006        | 0.0000   |
| 25-30 km        | 30-40 km        | -0.0006 | 0.0001    | -4.5 | 0.000 | -0.0009        | -0.0004  |
| 30-35 km        | 30-40 km        | -0.0007 | 0.0001    | -5.6 | 0.000 | -0.0009        | -0.0004  |
| 35-40 km        | 30-40 km        | -0.0006 | 0.0002    | -3.8 | 0.000 | -0.0009        | -0.0003  |
| 40-45 km        | 30-40 km        | -0.0007 | 0.0002    | -4.5 | 0.000 | -0.0010        | -0.0004  |
| 45-50 km        | 30-40 km        | -0.0007 | 0.0002    | -3.3 | 0.001 | -0.0012        | -0.0003  |
| >50 km          | 30-40 km        | 0.0001  | 0.0002    | 0.5  | 0.592 | -0.0003        | 0.0006   |

Table H.2: Night light by distance to the nearest mission station and homeland border:  
Instrumental variable: temperature (continued)

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 40-50 km        | -0.0006 | 0.0001    | -5.9 | 0.000 | -0.0007        | -0.0004  |
| 5-10 km         | 40-50 km        | -0.0003 | 0.0001    | -3.7 | 0.000 | -0.0005        | -0.0002  |
| 10-15 km        | 40-50 km        | -0.0005 | 0.0001    | -6.3 | 0.000 | -0.0007        | -0.0004  |
| 15-20 km        | 40-50 km        | -0.0004 | 0.0001    | -4.4 | 0.000 | -0.0006        | -0.0002  |
| 20-25 km        | 40-50 km        | -0.0007 | 0.0001    | -6.4 | 0.000 | -0.0009        | -0.0005  |
| 25-30 km        | 40-50 km        | -0.0006 | 0.0001    | -5.9 | 0.000 | -0.0008        | -0.0004  |
| 30-35 km        | 40-50 km        | -0.0006 | 0.0001    | -4.2 | 0.000 | -0.0009        | -0.0003  |
| 35-40 km        | 40-50 km        | -0.0007 | 0.0002    | -4.4 | 0.000 | -0.0010        | -0.0004  |
| 40-45 km        | 40-50 km        | -0.0010 | 0.0001    | -7.3 | 0.000 | -0.0013        | -0.0007  |
| 45-50 km        | 40-50 km        | -0.0003 | 0.0002    | -1.3 | 0.211 | -0.0007        | 0.0002   |
| >50 km          | 40-50 km        | -0.0002 | 0.0001    | -1.6 | 0.116 | -0.0003        | 0.0000   |
| 0-5 km          | 50-60 km        | -0.0004 | 0.0001    | -4.6 | 0.000 | -0.0005        | -0.0002  |
| 5-10 km         | 50-60 km        | -0.0005 | 0.0001    | -5.0 | 0.000 | -0.0006        | -0.0003  |
| 10-15 km        | 50-60 km        | -0.0004 | 0.0001    | -3.8 | 0.000 | -0.0006        | -0.0002  |
| 15-20 km        | 50-60 km        | -0.0003 | 0.0001    | -2.4 | 0.015 | -0.0005        | -0.0001  |
| 20-25 km        | 50-60 km        | -0.0003 | 0.0001    | -2.3 | 0.019 | -0.0005        | 0.0000   |
| 25-30 km        | 50-60 km        | -0.0004 | 0.0001    | -3.5 | 0.000 | -0.0007        | -0.0002  |
| 30-35 km        | 50-60 km        | -0.0008 | 0.0001    | -6.4 | 0.000 | -0.0010        | -0.0005  |
| 35-40 km        | 50-60 km        | -0.0005 | 0.0001    | -3.5 | 0.000 | -0.0008        | -0.0002  |
| 40-45 km        | 50-60 km        | -0.0005 | 0.0002    | -2.5 | 0.012 | -0.0008        | -0.0001  |
| 45-50 km        | 50-60 km        | -0.0007 | 0.0002    | -4.4 | 0.000 | -0.0010        | -0.0004  |
| >50 km          | 50-60 km        | -0.0002 | 0.0001    | -2.1 | 0.035 | -0.0004        | 0.0000   |
| 0-5 km          | 60-70 km        | -0.0004 | 0.0001    | -4.1 | 0.000 | -0.0006        | -0.0002  |
| 5-10 km         | 60-70 km        | -0.0003 | 0.0001    | -2.5 | 0.012 | -0.0005        | -0.0001  |
| 10-15 km        | 60-70 km        | -0.0005 | 0.0001    | -5.5 | 0.000 | -0.0007        | -0.0003  |
| 15-20 km        | 60-70 km        | -0.0003 | 0.0001    | -3.3 | 0.001 | -0.0005        | -0.0001  |
| 20-25 km        | 60-70 km        | -0.0005 | 0.0001    | -4.8 | 0.000 | -0.0007        | -0.0003  |
| 25-30 km        | 60-70 km        | -0.0005 | 0.0001    | -3.7 | 0.000 | -0.0008        | -0.0002  |
| 30-35 km        | 60-70 km        | 0.0000  | 0.0002    | 0.2  | 0.829 | -0.0003        | 0.0004   |
| 35-40 km        | 60-70 km        | -0.0007 | 0.0001    | -4.6 | 0.000 | -0.0009        | -0.0004  |
| 40-45 km        | 60-70 km        | -0.0005 | 0.0001    | -3.8 | 0.000 | -0.0008        | -0.0003  |
| 45-50 km        | 60-70 km        | -0.0007 | 0.0001    | -4.9 | 0.000 | -0.0010        | -0.0004  |
| >50 km          | 60-70 km        | -0.0002 | 0.0001    | -2.4 | 0.015 | -0.0004        | 0.0000   |
| 0-5 km          | 70-80 km        | -0.0002 | 0.0001    | -2.3 | 0.023 | -0.0004        | 0.0000   |
| 5-10 km         | 70-80 km        | -0.0003 | 0.0001    | -3.1 | 0.002 | -0.0006        | -0.0001  |
| 10-15 km        | 70-80 km        | -0.0005 | 0.0001    | -4.2 | 0.000 | -0.0007        | -0.0002  |
| 15-20 km        | 70-80 km        | -0.0005 | 0.0001    | -6.1 | 0.000 | -0.0007        | -0.0004  |
| 20-25 km        | 70-80 km        | -0.0003 | 0.0001    | -3.2 | 0.001 | -0.0005        | -0.0001  |
| 25-30 km        | 70-80 km        | -0.0002 | 0.0001    | -1.7 | 0.091 | -0.0005        | 0.0000   |
| 30-35 km        | 70-80 km        | -0.0004 | 0.0001    | -3.8 | 0.000 | -0.0007        | -0.0002  |
| 35-40 km        | 70-80 km        | -0.0002 | 0.0001    | -1.3 | 0.209 | -0.0005        | 0.0001   |
| 40-45 km        | 70-80 km        | -0.0001 | 0.0002    | -0.8 | 0.445 | -0.0005        | 0.0002   |
| 45-50 km        | 70-80 km        | -0.0002 | 0.0002    | -0.8 | 0.442 | -0.0006        | 0.0003   |
| >50 km          | 70-80 km        | -0.0002 | 0.0001    | -2.0 | 0.045 | -0.0004        | 0.0000   |

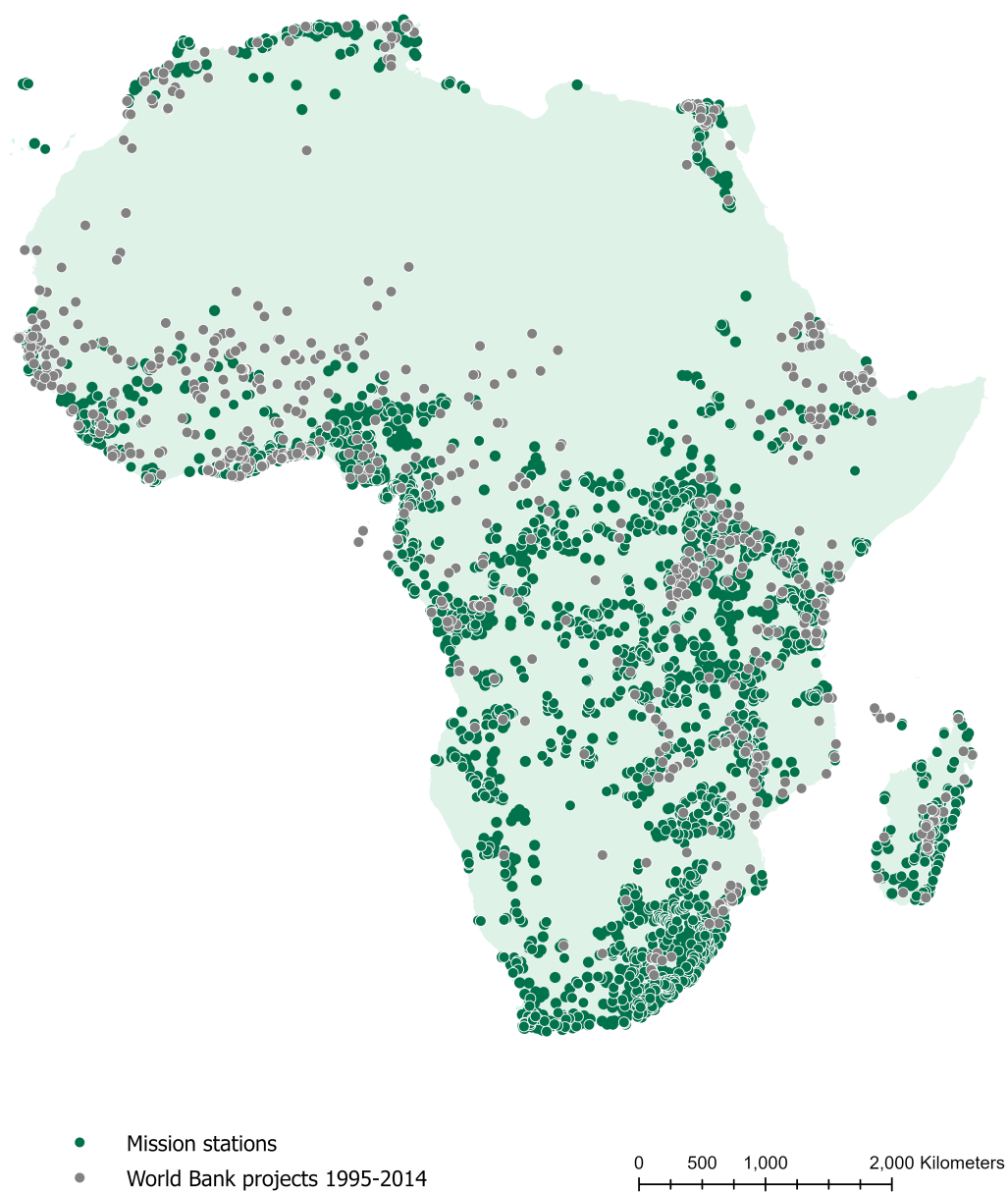
Table H.2: Night light by distance to the nearest mission station and homeland border:  
Instrumental variable: temperature (continued)

| Homeland border         | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-------------------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km                  | 80-90 km        | -0.0002 | 0.0001    | -2.7 | 0.006 | -0.0004        | -0.0001  |
| 5-10 km                 | 80-90 km        | -0.0004 | 0.0001    | -4.1 | 0.000 | -0.0005        | -0.0002  |
| 10-15 km                | 80-90 km        | -0.0002 | 0.0001    | -1.6 | 0.113 | -0.0004        | 0.0000   |
| 15-20 km                | 80-90 km        | -0.0004 | 0.0001    | -3.5 | 0.001 | -0.0005        | -0.0002  |
| 20-25 km                | 80-90 km        | -0.0003 | 0.0001    | -3.1 | 0.002 | -0.0005        | -0.0001  |
| 25-30 km                | 80-90 km        | -0.0003 | 0.0001    | -2.5 | 0.011 | -0.0005        | -0.0001  |
| 30-35 km                | 80-90 km        | -0.0001 | 0.0001    | -0.7 | 0.462 | -0.0003        | 0.0001   |
| 35-40 km                | 80-90 km        | -0.0002 | 0.0002    | -1.1 | 0.251 | -0.0005        | 0.0001   |
| 40-45 km                | 80-90 km        | -0.0005 | 0.0002    | -2.5 | 0.013 | -0.0008        | -0.0001  |
| 45-50 km                | 80-90 km        | 0.0001  | 0.0002    | 0.3  | 0.801 | -0.0004        | 0.0005   |
| >50 km                  | 80-90 km        | -0.0003 | 0.0001    | -3.4 | 0.001 | -0.0005        | -0.0001  |
| 0-5 km                  | 90-100 km       | -0.0002 | 0.0001    | -2.4 | 0.014 | -0.0004        | 0.0000   |
| 5-10 km                 | 90-100 km       | -0.0004 | 0.0001    | -4.4 | 0.000 | -0.0006        | -0.0002  |
| 10-15 km                | 90-100 km       | -0.0002 | 0.0001    | -2.6 | 0.009 | -0.0004        | -0.0001  |
| 15-20 km                | 90-100 km       | -0.0002 | 0.0001    | -1.8 | 0.068 | -0.0003        | 0.0000   |
| 20-25 km                | 90-100 km       | 0.0000  | 0.0001    | -0.4 | 0.714 | -0.0003        | 0.0002   |
| 25-30 km                | 90-100 km       | -0.0003 | 0.0001    | -2.9 | 0.004 | -0.0005        | -0.0001  |
| 30-35 km                | 90-100 km       | 0.0000  | 0.0001    | -0.1 | 0.955 | -0.0002        | 0.0002   |
| 35-40 km                | 90-100 km       | -0.0003 | 0.0002    | -2.0 | 0.045 | -0.0007        | 0.0000   |
| 40-45 km                | 90-100 km       | 0.0001  | 0.0002    | 0.7  | 0.479 | -0.0002        | 0.0005   |
| 45-50 km                | 90-100 km       | -0.0007 | 0.0002    | -4.0 | 0.000 | -0.0010        | -0.0003  |
| >50 km                  | 90-100 km       | -0.0002 | 0.0001    | -2.0 | 0.048 | -0.0005        | 0.0000   |
| 0-5 km                  | >100 km         | -0.0003 | 0.0001    | -3.2 | 0.002 | -0.0005        | -0.0001  |
| 5-10 km                 | >100 km         | -0.0003 | 0.0001    | -2.7 | 0.007 | -0.0005        | -0.0001  |
| 10-15 km                | >100 km         | -0.0003 | 0.0001    | -2.6 | 0.009 | -0.0005        | -0.0001  |
| 15-20 km                | >100 km         | -0.0002 | 0.0001    | -2.6 | 0.010 | -0.0004        | -0.0001  |
| 20-25 km                | >100 km         | -0.0003 | 0.0001    | -2.1 | 0.039 | -0.0005        | 0.0000   |
| 25-30 km                | >100 km         | -0.0003 | 0.0001    | -2.1 | 0.035 | -0.0005        | 0.0000   |
| 30-35 km                | >100 km         | 0.0002  | 0.0002    | 1.0  | 0.338 | -0.0002        | 0.0005   |
| 35-40 km                | >100 km         | -0.0004 | 0.0002    | -2.0 | 0.041 | -0.0008        | 0.0000   |
| 40-45 km                | >100 km         | -0.0002 | 0.0002    | -1.3 | 0.203 | -0.0006        | 0.0001   |
| 45-50 km                | >100 km         | 0.0003  | 0.0005    | 0.6  | 0.538 | -0.0007        | 0.0014   |
| >50 km                  | >100 km         | 0.0000  | (omitted) |      |       |                |          |
| Controls                |                 |         |           |      |       |                | Yes      |
| Coloniser fixed effects |                 |         |           |      |       |                | Yes      |
| Country fixed effects   |                 |         |           |      |       |                | Yes      |
| Std. err.               |                 |         |           |      |       |                | Robust   |
| R2                      |                 |         |           |      |       |                | 0.3592   |
| N                       |                 |         |           |      |       |                | 159,098  |

*Notes:* The regression model, displayed in Equation 2, controls for latitude, ruggedness, elevation, rainfall, land suitability for agriculture, malaria, tsetse flies, population density, uninhabited grid cells, major cities, islands, Sub-Saharan Africa, as well as the geodesic distances to coasts, rivers, railways, mines, national borders, historical explorer routes, precolonial cities, Muslim seats, Protestant printing presses, and postcolonial World Bank aid projects. Gaps between the first- and second-nearest mission stations and homeland borders are also accounted for. All variables are log-linearised except binaries. The regression sample was restricted to grid cells located less than 200 km from a mission station and 100 km from a homeland border.

# I Accounting for World Bank aid projects

Figure I.1: The location of World Bank aid projects, 1995-2014



Source: [AidData \(2017\)](#).

Table I.1: Night light by distance to mission stations and homeland borders:  
Without World Bank project within 50 km

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 0-10 km         | 0.0001  | 0.0004    | 0.4  | 0.714 | -0.0006        | 0.0009   |
| 5-10 km         | 0-10 km         | 0.0001  | 0.0004    | 0.2  | 0.839 | -0.0007        | 0.0008   |
| 10-15 km        | 0-10 km         | -0.0002 | 0.0003    | -0.7 | 0.465 | -0.0009        | 0.0004   |
| 15-20 km        | 0-10 km         | 0.0004  | 0.0004    | 1.0  | 0.334 | -0.0004        | 0.0012   |
| 20-25 km        | 0-10 km         | 0.0016  | 0.0006    | 2.7  | 0.006 | 0.0005         | 0.0028   |
| 25-30 km        | 0-10 km         | 0.0015  | 0.0006    | 2.6  | 0.008 | 0.0004         | 0.0026   |
| 30-35 km        | 0-10 km         | 0.0020  | 0.0007    | 2.7  | 0.007 | 0.0006         | 0.0034   |
| 35-40 km        | 0-10 km         | 0.0017  | 0.0007    | 2.4  | 0.018 | 0.0003         | 0.0031   |
| 40-45 km        | 0-10 km         | 0.0013  | 0.0008    | 1.7  | 0.090 | -0.0002        | 0.0029   |
| 45-50 km        | 0-10 km         | 0.0022  | 0.0008    | 2.6  | 0.009 | 0.0005         | 0.0039   |
| >50 km          | 0-10 km         | 0.0036  | 0.0004    | 9.4  | 0.000 | 0.0028         | 0.0043   |
| 0-5 km          | 10-20 km        | -0.0003 | 0.0001    | -2.0 | 0.042 | -0.0006        | 0.0000   |
| 5-10 km         | 10-20 km        | -0.0001 | 0.0002    | -0.5 | 0.602 | -0.0004        | 0.0002   |
| 10-15 km        | 10-20 km        | 0.0002  | 0.0002    | 0.9  | 0.369 | -0.0002        | 0.0006   |
| 15-20 km        | 10-20 km        | 0.0000  | 0.0002    | -0.1 | 0.939 | -0.0004        | 0.0004   |
| 20-25 km        | 10-20 km        | 0.0002  | 0.0002    | 0.8  | 0.440 | -0.0003        | 0.0007   |
| 25-30 km        | 10-20 km        | 0.0012  | 0.0004    | 3.2  | 0.001 | 0.0005         | 0.0019   |
| 30-35 km        | 10-20 km        | 0.0002  | 0.0003    | 0.8  | 0.450 | -0.0003        | 0.0008   |
| 35-40 km        | 10-20 km        | 0.0008  | 0.0004    | 2.2  | 0.029 | 0.0001         | 0.0015   |
| 40-45 km        | 10-20 km        | 0.0011  | 0.0004    | 2.8  | 0.005 | 0.0003         | 0.0019   |
| 45-50 km        | 10-20 km        | 0.0004  | 0.0004    | 1.2  | 0.218 | -0.0003        | 0.0011   |
| >50 km          | 10-20 km        | 0.0005  | 0.0002    | 2.9  | 0.004 | 0.0002         | 0.0008   |
| 0-5 km          | 20-30 km        | 0.0000  | 0.0001    | -0.2 | 0.823 | -0.0003        | 0.0002   |
| 5-10 km         | 20-30 km        | 0.0000  | 0.0001    | 0.2  | 0.821 | -0.0003        | 0.0003   |
| 10-15 km        | 20-30 km        | 0.0000  | 0.0001    | 0.0  | 0.965 | -0.0003        | 0.0003   |
| 15-20 km        | 20-30 km        | -0.0003 | 0.0002    | -1.6 | 0.100 | -0.0006        | 0.0000   |
| 20-25 km        | 20-30 km        | 0.0000  | 0.0002    | -0.2 | 0.841 | -0.0004        | 0.0003   |
| 25-30 km        | 20-30 km        | -0.0003 | 0.0001    | -2.2 | 0.030 | -0.0006        | 0.0000   |
| 30-35 km        | 20-30 km        | 0.0001  | 0.0002    | 0.4  | 0.680 | -0.0003        | 0.0005   |
| 35-40 km        | 20-30 km        | -0.0001 | 0.0003    | -0.5 | 0.639 | -0.0006        | 0.0004   |
| 40-45 km        | 20-30 km        | -0.0002 | 0.0002    | -0.7 | 0.482 | -0.0006        | 0.0003   |
| 45-50 km        | 20-30 km        | -0.0004 | 0.0002    | -2.4 | 0.016 | -0.0008        | -0.0001  |
| >50 km          | 20-30 km        | 0.0001  | 0.0001    | 0.5  | 0.590 | -0.0002        | 0.0003   |
| 0-5 km          | 30-40 km        | 0.0001  | 0.0001    | 0.5  | 0.645 | -0.0002        | 0.0003   |
| 5-10 km         | 30-40 km        | -0.0001 | 0.0001    | -1.1 | 0.291 | -0.0004        | 0.0001   |
| 10-15 km        | 30-40 km        | -0.0002 | 0.0001    | -2.0 | 0.046 | -0.0004        | 0.0000   |
| 15-20 km        | 30-40 km        | -0.0002 | 0.0001    | -2.1 | 0.034 | -0.0005        | 0.0000   |
| 20-25 km        | 30-40 km        | 0.0001  | 0.0001    | 1.0  | 0.334 | -0.0001        | 0.0004   |
| 25-30 km        | 30-40 km        | -0.0004 | 0.0001    | -3.0 | 0.003 | -0.0007        | -0.0001  |
| 30-35 km        | 30-40 km        | -0.0004 | 0.0001    | -2.6 | 0.008 | -0.0006        | -0.0001  |
| 35-40 km        | 30-40 km        | -0.0002 | 0.0002    | -1.3 | 0.181 | -0.0005        | 0.0001   |
| 40-45 km        | 30-40 km        | -0.0002 | 0.0002    | -1.4 | 0.158 | -0.0006        | 0.0001   |
| 45-50 km        | 30-40 km        | -0.0006 | 0.0002    | -2.9 | 0.004 | -0.0009        | -0.0002  |
| >50 km          | 30-40 km        | 0.0004  | 0.0003    | 1.5  | 0.144 | -0.0001        | 0.0009   |

Table I.1: Night light by distance to mission stations and homeland borders:  
Without World Bank project within 50 km (continued)

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 40-50 km        | -0.0003 | 0.0001    | -2.9 | 0.003 | -0.0004        | -0.0001  |
| 5-10 km         | 40-50 km        | -0.0001 | 0.0001    | -1.4 | 0.159 | -0.0003        | 0.0000   |
| 10-15 km        | 40-50 km        | -0.0002 | 0.0001    | -2.3 | 0.021 | -0.0004        | 0.0000   |
| 15-20 km        | 40-50 km        | -0.0001 | 0.0001    | -0.9 | 0.375 | -0.0003        | 0.0001   |
| 20-25 km        | 40-50 km        | -0.0003 | 0.0001    | -2.2 | 0.028 | -0.0005        | 0.0000   |
| 25-30 km        | 40-50 km        | -0.0002 | 0.0001    | -2.0 | 0.045 | -0.0004        | 0.0000   |
| 30-35 km        | 40-50 km        | -0.0003 | 0.0001    | -2.2 | 0.027 | -0.0006        | 0.0000   |
| 35-40 km        | 40-50 km        | -0.0003 | 0.0002    | -1.7 | 0.085 | -0.0006        | 0.0000   |
| 40-45 km        | 40-50 km        | -0.0005 | 0.0001    | -3.6 | 0.000 | -0.0008        | -0.0002  |
| 45-50 km        | 40-50 km        | 0.0001  | 0.0002    | 0.6  | 0.574 | -0.0003        | 0.0006   |
| >50 km          | 40-50 km        | 0.0000  | 0.0001    | -0.1 | 0.882 | -0.0002        | 0.0002   |
| 0-5 km          | 50-60 km        | -0.0001 | 0.0001    | -1.1 | 0.262 | -0.0002        | 0.0001   |
| 5-10 km         | 50-60 km        | -0.0001 | 0.0001    | -1.2 | 0.219 | -0.0003        | 0.0001   |
| 10-15 km        | 50-60 km        | -0.0001 | 0.0001    | -1.3 | 0.192 | -0.0004        | 0.0001   |
| 15-20 km        | 50-60 km        | 0.0001  | 0.0001    | 0.6  | 0.579 | -0.0002        | 0.0003   |
| 20-25 km        | 50-60 km        | 0.0000  | 0.0001    | 0.0  | 0.971 | -0.0002        | 0.0003   |
| 25-30 km        | 50-60 km        | 0.0000  | 0.0001    | -0.1 | 0.909 | -0.0003        | 0.0002   |
| 30-35 km        | 50-60 km        | -0.0003 | 0.0001    | -2.9 | 0.004 | -0.0005        | -0.0001  |
| 35-40 km        | 50-60 km        | -0.0002 | 0.0001    | -1.5 | 0.141 | -0.0004        | 0.0001   |
| 40-45 km        | 50-60 km        | 0.0000  | 0.0002    | -0.2 | 0.831 | -0.0004        | 0.0003   |
| 45-50 km        | 50-60 km        | -0.0003 | 0.0002    | -1.8 | 0.076 | -0.0006        | 0.0000   |
| >50 km          | 50-60 km        | 0.0000  | 0.0001    | -0.1 | 0.924 | -0.0002        | 0.0002   |
| 0-5 km          | 60-70 km        | -0.0001 | 0.0001    | -0.5 | 0.613 | -0.0003        | 0.0002   |
| 5-10 km         | 60-70 km        | 0.0001  | 0.0001    | 0.5  | 0.648 | -0.0002        | 0.0003   |
| 10-15 km        | 60-70 km        | -0.0002 | 0.0001    | -2.1 | 0.038 | -0.0003        | 0.0000   |
| 15-20 km        | 60-70 km        | -0.0001 | 0.0001    | -1.4 | 0.160 | -0.0003        | 0.0001   |
| 20-25 km        | 60-70 km        | -0.0002 | 0.0001    | -1.8 | 0.072 | -0.0003        | 0.0000   |
| 25-30 km        | 60-70 km        | -0.0002 | 0.0001    | -1.1 | 0.269 | -0.0004        | 0.0001   |
| 30-35 km        | 60-70 km        | 0.0003  | 0.0002    | 1.8  | 0.068 | 0.0000         | 0.0007   |
| 35-40 km        | 60-70 km        | -0.0002 | 0.0001    | -1.6 | 0.104 | -0.0005        | 0.0000   |
| 40-45 km        | 60-70 km        | -0.0002 | 0.0001    | -1.5 | 0.143 | -0.0004        | 0.0001   |
| 45-50 km        | 60-70 km        | -0.0004 | 0.0001    | -3.1 | 0.002 | -0.0006        | -0.0001  |
| >50 km          | 60-70 km        | -0.0001 | 0.0001    | -1.3 | 0.202 | -0.0003        | 0.0001   |
| 0-5 km          | 70-80 km        | 0.0001  | 0.0001    | 1.2  | 0.239 | -0.0001        | 0.0003   |
| 5-10 km         | 70-80 km        | -0.0001 | 0.0001    | -0.5 | 0.601 | -0.0003        | 0.0002   |
| 10-15 km        | 70-80 km        | -0.0001 | 0.0001    | -1.0 | 0.324 | -0.0003        | 0.0001   |
| 15-20 km        | 70-80 km        | -0.0003 | 0.0001    | -3.4 | 0.001 | -0.0004        | -0.0001  |
| 20-25 km        | 70-80 km        | 0.0000  | 0.0001    | 0.1  | 0.910 | -0.0002        | 0.0002   |
| 25-30 km        | 70-80 km        | -0.0001 | 0.0001    | -1.1 | 0.282 | -0.0003        | 0.0001   |
| 30-35 km        | 70-80 km        | -0.0002 | 0.0001    | -1.7 | 0.083 | -0.0003        | 0.0000   |
| 35-40 km        | 70-80 km        | 0.0001  | 0.0001    | 1.0  | 0.329 | -0.0001        | 0.0004   |
| 40-45 km        | 70-80 km        | 0.0000  | 0.0002    | -0.1 | 0.887 | -0.0004        | 0.0003   |
| 45-50 km        | 70-80 km        | 0.0000  | 0.0002    | 0.1  | 0.891 | -0.0005        | 0.0005   |
| >50 km          | 70-80 km        | -0.0001 | 0.0001    | -0.8 | 0.441 | -0.0003        | 0.0001   |

Table I.1: Night light by distance to mission stations and homeland borders:  
Without World Bank project within 50 km (continued)

| Homeland border         | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-------------------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km                  | 80-90 km        | 0.0001  | 0.0001    | 0.8  | 0.439 | -0.0001        | 0.0002   |
| 5-10 km                 | 80-90 km        | -0.0001 | 0.0001    | -0.7 | 0.498 | -0.0002        | 0.0001   |
| 10-15 km                | 80-90 km        | 0.0000  | 0.0001    | 0.2  | 0.857 | -0.0002        | 0.0002   |
| 15-20 km                | 80-90 km        | -0.0002 | 0.0001    | -1.9 | 0.057 | -0.0004        | 0.0000   |
| 20-25 km                | 80-90 km        | -0.0001 | 0.0001    | -1.9 | 0.056 | -0.0003        | 0.0000   |
| 25-30 km                | 80-90 km        | -0.0001 | 0.0001    | -1.4 | 0.173 | -0.0003        | 0.0001   |
| 30-35 km                | 80-90 km        | 0.0000  | 0.0001    | 0.1  | 0.925 | -0.0002        | 0.0002   |
| 35-40 km                | 80-90 km        | 0.0000  | 0.0002    | -0.3 | 0.755 | -0.0004        | 0.0003   |
| 40-45 km                | 80-90 km        | -0.0003 | 0.0002    | -1.5 | 0.128 | -0.0006        | 0.0001   |
| 45-50 km                | 80-90 km        | 0.0002  | 0.0003    | 0.9  | 0.372 | -0.0003        | 0.0007   |
| >50 km                  | 80-90 km        | -0.0001 | 0.0001    | -1.7 | 0.097 | -0.0003        | 0.0000   |
| 0-5 km                  | 90-100 km       | 0.0000  | 0.0001    | -0.2 | 0.807 | -0.0002        | 0.0002   |
| 5-10 km                 | 90-100 km       | -0.0003 | 0.0001    | -3.1 | 0.002 | -0.0004        | -0.0001  |
| 10-15 km                | 90-100 km       | 0.0000  | 0.0001    | -0.4 | 0.685 | -0.0002        | 0.0001   |
| 15-20 km                | 90-100 km       | 0.0000  | 0.0001    | -0.3 | 0.768 | -0.0002        | 0.0001   |
| 20-25 km                | 90-100 km       | -0.0001 | 0.0001    | -0.9 | 0.384 | -0.0002        | 0.0001   |
| 25-30 km                | 90-100 km       | -0.0002 | 0.0001    | -2.4 | 0.015 | -0.0004        | 0.0000   |
| 30-35 km                | 90-100 km       | -0.0001 | 0.0001    | -1.2 | 0.226 | -0.0003        | 0.0001   |
| 35-40 km                | 90-100 km       | -0.0002 | 0.0002    | -1.3 | 0.199 | -0.0005        | 0.0001   |
| 40-45 km                | 90-100 km       | 0.0001  | 0.0002    | 0.5  | 0.623 | -0.0003        | 0.0005   |
| 45-50 km                | 90-100 km       | -0.0005 | 0.0001    | -3.4 | 0.001 | -0.0008        | -0.0002  |
| >50 km                  | 90-100 km       | -0.0001 | 0.0001    | -0.8 | 0.427 | -0.0003        | 0.0001   |
| 0-5 km                  | >100 km         | -0.0002 | 0.0000    | -6.2 | 0.000 | -0.0002        | -0.0001  |
| 5-10 km                 | >100 km         | -0.0002 | 0.0000    | -6.6 | 0.000 | -0.0003        | -0.0001  |
| 10-15 km                | >100 km         | -0.0001 | 0.0000    | -4.6 | 0.000 | -0.0002        | -0.0001  |
| 15-20 km                | >100 km         | -0.0002 | 0.0000    | -5.6 | 0.000 | -0.0002        | -0.0001  |
| 20-25 km                | >100 km         | -0.0001 | 0.0000    | -2.6 | 0.010 | -0.0002        | 0.0000   |
| 25-30 km                | >100 km         | -0.0001 | 0.0000    | -3.4 | 0.001 | -0.0002        | -0.0001  |
| 30-35 km                | >100 km         | -0.0001 | 0.0000    | -2.6 | 0.008 | -0.0002        | 0.0000   |
| 35-40 km                | >100 km         | -0.0001 | 0.0000    | -1.5 | 0.136 | -0.0001        | 0.0000   |
| 40-45 km                | >100 km         | 0.0001  | 0.0001    | 0.9  | 0.391 | -0.0001        | 0.0002   |
| 45-50 km                | >100 km         | -0.0001 | 0.0000    | -1.4 | 0.158 | -0.0002        | 0.0000   |
| >50 km                  | >100 km         | 0.0000  | (omitted) |      |       |                |          |
| Controls                |                 |         |           |      |       |                | Yes      |
| Coloniser fixed effects |                 |         |           |      |       |                | Yes      |
| Country fixed effects   |                 |         |           |      |       |                | Yes      |
| Std. err.               |                 |         |           |      |       |                | Robust   |
| $R^2$                   |                 |         |           |      |       |                | 0.2927   |
| N                       |                 |         |           |      |       |                | 229,077  |

*Notes:* The regression model, displayed in Equation 2, controls for latitude, ruggedness, elevation, rainfall, temperature, land suitability for agriculture, malaria, tsetse flies, population density, uninhabited grid cells, major cities, islands, Sub-Saharan Africa, as well as the geodesic distances to coasts, rivers, railways, mines, national borders, historical explorer routes, precolonial cities, Muslim seats, Protestant printing presses, and postcolonial World Bank aid projects. Gaps between the first- and second-nearest mission stations and homeland borders are also accounted for. All variables are log-linearised except binaries. The regression sample excludes grid cells located less than 50 km from a World Bank project.

Table I.2: Night light by distance to mission stations and homeland borders:  
Without cells near mission stations overlapping with World Bank projects

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 0-10 km         | 0.0001  | 0.0003    | 0.2  | 0.858 | -0.0006        | 0.0007   |
| 5-10 km         | 0-10 km         | -0.0003 | 0.0003    | -0.9 | 0.366 | -0.0009        | 0.0004   |
| 10-15 km        | 0-10 km         | 0.0001  | 0.0004    | 0.3  | 0.735 | -0.0006        | 0.0009   |
| 15-20 km        | 0-10 km         | 0.0006  | 0.0004    | 1.4  | 0.147 | -0.0002        | 0.0014   |
| 20-25 km        | 0-10 km         | 0.0017  | 0.0005    | 3.2  | 0.001 | 0.0007         | 0.0028   |
| 25-30 km        | 0-10 km         | 0.0020  | 0.0006    | 3.7  | 0.000 | 0.0009         | 0.0031   |
| 30-35 km        | 0-10 km         | 0.0024  | 0.0007    | 3.6  | 0.000 | 0.0011         | 0.0037   |
| 35-40 km        | 0-10 km         | 0.0017  | 0.0007    | 2.6  | 0.010 | 0.0004         | 0.0030   |
| 40-45 km        | 0-10 km         | 0.0023  | 0.0008    | 3.0  | 0.003 | 0.0008         | 0.0039   |
| 45-50 km        | 0-10 km         | 0.0028  | 0.0008    | 3.4  | 0.001 | 0.0012         | 0.0044   |
| >50 km          | 0-10 km         | 0.0040  | 0.0004    | 11.3 | 0.000 | 0.0033         | 0.0047   |
| 0-5 km          | 10-20 km        | -0.0005 | 0.0002    | -3.1 | 0.002 | -0.0008        | -0.0002  |
| 5-10 km         | 10-20 km        | -0.0004 | 0.0002    | -2.7 | 0.007 | -0.0008        | -0.0001  |
| 10-15 km        | 10-20 km        | -0.0001 | 0.0002    | -0.6 | 0.540 | -0.0005        | 0.0003   |
| 15-20 km        | 10-20 km        | -0.0004 | 0.0002    | -2.0 | 0.050 | -0.0008        | 0.0000   |
| 20-25 km        | 10-20 km        | 0.0003  | 0.0003    | 1.0  | 0.316 | -0.0002        | 0.0008   |
| 25-30 km        | 10-20 km        | 0.0004  | 0.0003    | 1.5  | 0.131 | -0.0001        | 0.0010   |
| 30-35 km        | 10-20 km        | 0.0004  | 0.0003    | 1.3  | 0.209 | -0.0002        | 0.0009   |
| 35-40 km        | 10-20 km        | 0.0008  | 0.0004    | 2.3  | 0.020 | 0.0001         | 0.0015   |
| 40-45 km        | 10-20 km        | 0.0007  | 0.0003    | 2.2  | 0.031 | 0.0001         | 0.0014   |
| 45-50 km        | 10-20 km        | 0.0003  | 0.0004    | 1.0  | 0.338 | -0.0004        | 0.0011   |
| >50 km          | 10-20 km        | 0.0006  | 0.0002    | 3.4  | 0.001 | 0.0002         | 0.0009   |
| 0-5 km          | 20-30 km        | -0.0005 | 0.0001    | -3.1 | 0.002 | -0.0007        | -0.0002  |
| 5-10 km         | 20-30 km        | -0.0003 | 0.0001    | -2.3 | 0.023 | -0.0006        | 0.0000   |
| 10-15 km        | 20-30 km        | -0.0003 | 0.0002    | -2.2 | 0.027 | -0.0007        | 0.0000   |
| 15-20 km        | 20-30 km        | -0.0005 | 0.0002    | -2.8 | 0.006 | -0.0008        | -0.0001  |
| 20-25 km        | 20-30 km        | -0.0004 | 0.0002    | -2.3 | 0.023 | -0.0008        | -0.0001  |
| 25-30 km        | 20-30 km        | -0.0005 | 0.0002    | -3.5 | 0.001 | -0.0009        | -0.0002  |
| 30-35 km        | 20-30 km        | 0.0001  | 0.0002    | 0.3  | 0.794 | -0.0004        | 0.0005   |
| 35-40 km        | 20-30 km        | -0.0003 | 0.0002    | -1.1 | 0.284 | -0.0008        | 0.0002   |
| 40-45 km        | 20-30 km        | -0.0003 | 0.0002    | -1.4 | 0.151 | -0.0008        | 0.0001   |
| 45-50 km        | 20-30 km        | -0.0004 | 0.0003    | -1.4 | 0.150 | -0.0010        | 0.0002   |
| >50 km          | 20-30 km        | 0.0000  | 0.0001    | 0.1  | 0.930 | -0.0002        | 0.0003   |
| 0-5 km          | 30-40 km        | -0.0003 | 0.0001    | -3.0 | 0.003 | -0.0005        | -0.0001  |
| 5-10 km         | 30-40 km        | -0.0005 | 0.0001    | -3.8 | 0.000 | -0.0007        | -0.0002  |
| 10-15 km        | 30-40 km        | -0.0006 | 0.0001    | -5.4 | 0.000 | -0.0008        | -0.0004  |
| 15-20 km        | 30-40 km        | -0.0006 | 0.0001    | -4.8 | 0.000 | -0.0008        | -0.0003  |
| 20-25 km        | 30-40 km        | -0.0003 | 0.0001    | -2.4 | 0.015 | -0.0006        | -0.0001  |
| 25-30 km        | 30-40 km        | -0.0006 | 0.0001    | -4.3 | 0.000 | -0.0009        | -0.0003  |
| 30-35 km        | 30-40 km        | -0.0007 | 0.0001    | -5.2 | 0.000 | -0.0009        | -0.0004  |
| 35-40 km        | 30-40 km        | -0.0005 | 0.0002    | -2.8 | 0.006 | -0.0008        | -0.0001  |
| 40-45 km        | 30-40 km        | -0.0006 | 0.0002    | -3.7 | 0.000 | -0.0009        | -0.0003  |
| 45-50 km        | 30-40 km        | -0.0007 | 0.0002    | -3.7 | 0.000 | -0.0011        | -0.0003  |
| >50 km          | 30-40 km        | 0.0002  | 0.0002    | 0.8  | 0.403 | -0.0003        | 0.0007   |

Table I.2: Night light by distance to mission stations and homeland borders:  
Without cells near mission stations overlapping with World Bank projects (continued)

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 40-50 km        | -0.0006 | 0.0001    | -6.0 | 0.000 | -0.0008        | -0.0004  |
| 5-10 km         | 40-50 km        | -0.0004 | 0.0001    | -4.1 | 0.000 | -0.0006        | -0.0002  |
| 10-15 km        | 40-50 km        | -0.0006 | 0.0001    | -6.4 | 0.000 | -0.0007        | -0.0004  |
| 15-20 km        | 40-50 km        | -0.0005 | 0.0001    | -4.9 | 0.000 | -0.0007        | -0.0003  |
| 20-25 km        | 40-50 km        | -0.0008 | 0.0001    | -6.7 | 0.000 | -0.0010        | -0.0006  |
| 25-30 km        | 40-50 km        | -0.0006 | 0.0001    | -6.4 | 0.000 | -0.0008        | -0.0004  |
| 30-35 km        | 40-50 km        | -0.0006 | 0.0001    | -4.4 | 0.000 | -0.0009        | -0.0003  |
| 35-40 km        | 40-50 km        | -0.0007 | 0.0002    | -4.2 | 0.000 | -0.0010        | -0.0004  |
| 40-45 km        | 40-50 km        | -0.0009 | 0.0001    | -6.4 | 0.000 | -0.0012        | -0.0006  |
| 45-50 km        | 40-50 km        | -0.0001 | 0.0002    | -0.2 | 0.809 | -0.0005        | 0.0004   |
| >50 km          | 40-50 km        | -0.0001 | 0.0001    | -1.3 | 0.187 | -0.0004        | 0.0001   |
| 0-5 km          | 50-60 km        | -0.0004 | 0.0001    | -5.5 | 0.000 | -0.0006        | -0.0003  |
| 5-10 km         | 50-60 km        | -0.0006 | 0.0001    | -5.9 | 0.000 | -0.0007        | -0.0004  |
| 10-15 km        | 50-60 km        | -0.0005 | 0.0001    | -4.5 | 0.000 | -0.0007        | -0.0003  |
| 15-20 km        | 50-60 km        | -0.0004 | 0.0001    | -3.4 | 0.001 | -0.0006        | -0.0002  |
| 20-25 km        | 50-60 km        | -0.0003 | 0.0001    | -2.6 | 0.010 | -0.0006        | -0.0001  |
| 25-30 km        | 50-60 km        | -0.0005 | 0.0001    | -3.8 | 0.000 | -0.0007        | -0.0002  |
| 30-35 km        | 50-60 km        | -0.0008 | 0.0001    | -6.9 | 0.000 | -0.0010        | -0.0005  |
| 35-40 km        | 50-60 km        | -0.0005 | 0.0001    | -4.0 | 0.000 | -0.0008        | -0.0003  |
| 40-45 km        | 50-60 km        | -0.0004 | 0.0002    | -2.0 | 0.045 | -0.0007        | 0.0000   |
| 45-50 km        | 50-60 km        | -0.0006 | 0.0001    | -4.2 | 0.000 | -0.0009        | -0.0003  |
| >50 km          | 50-60 km        | -0.0002 | 0.0001    | -2.0 | 0.048 | -0.0004        | 0.0000   |
| 0-5 km          | 60-70 km        | -0.0006 | 0.0001    | -5.4 | 0.000 | -0.0008        | -0.0004  |
| 5-10 km         | 60-70 km        | -0.0004 | 0.0001    | -3.0 | 0.003 | -0.0006        | -0.0001  |
| 10-15 km        | 60-70 km        | -0.0005 | 0.0001    | -6.0 | 0.000 | -0.0007        | -0.0004  |
| 15-20 km        | 60-70 km        | -0.0005 | 0.0001    | -4.3 | 0.000 | -0.0007        | -0.0003  |
| 20-25 km        | 60-70 km        | -0.0005 | 0.0001    | -5.5 | 0.000 | -0.0007        | -0.0003  |
| 25-30 km        | 60-70 km        | -0.0005 | 0.0001    | -4.0 | 0.000 | -0.0008        | -0.0003  |
| 30-35 km        | 60-70 km        | 0.0000  | 0.0002    | 0.0  | 0.965 | -0.0004        | 0.0004   |
| 35-40 km        | 60-70 km        | -0.0006 | 0.0001    | -4.7 | 0.000 | -0.0009        | -0.0004  |
| 40-45 km        | 60-70 km        | -0.0005 | 0.0001    | -3.8 | 0.000 | -0.0008        | -0.0002  |
| 45-50 km        | 60-70 km        | -0.0007 | 0.0001    | -5.2 | 0.000 | -0.0010        | -0.0005  |
| >50 km          | 60-70 km        | -0.0003 | 0.0001    | -3.6 | 0.000 | -0.0005        | -0.0001  |
| 0-5 km          | 70-80 km        | -0.0003 | 0.0001    | -2.9 | 0.004 | -0.0005        | -0.0001  |
| 5-10 km         | 70-80 km        | -0.0004 | 0.0001    | -3.5 | 0.000 | -0.0006        | -0.0002  |
| 10-15 km        | 70-80 km        | -0.0005 | 0.0001    | -4.7 | 0.000 | -0.0007        | -0.0003  |
| 15-20 km        | 70-80 km        | -0.0006 | 0.0001    | -6.7 | 0.000 | -0.0008        | -0.0004  |
| 20-25 km        | 70-80 km        | -0.0004 | 0.0001    | -4.0 | 0.000 | -0.0006        | -0.0002  |
| 25-30 km        | 70-80 km        | -0.0003 | 0.0001    | -2.2 | 0.031 | -0.0006        | 0.0000   |
| 30-35 km        | 70-80 km        | -0.0004 | 0.0001    | -4.1 | 0.000 | -0.0007        | -0.0002  |
| 35-40 km        | 70-80 km        | -0.0003 | 0.0001    | -1.9 | 0.059 | -0.0006        | 0.0000   |
| 40-45 km        | 70-80 km        | -0.0002 | 0.0002    | -1.3 | 0.191 | -0.0006        | 0.0001   |
| 45-50 km        | 70-80 km        | -0.0003 | 0.0002    | -1.4 | 0.149 | -0.0008        | 0.0001   |
| >50 km          | 70-80 km        | -0.0003 | 0.0001    | -3.4 | 0.001 | -0.0005        | -0.0001  |

Table I.2: Night light by distance to mission stations and homeland borders:  
Without cells near mission stations overlapping with World Bank projects (continued)

| Homeland border         | Mission station | Coef.   | Std. Err. | t     | P>t   | 95% Confidence | Interval |
|-------------------------|-----------------|---------|-----------|-------|-------|----------------|----------|
| 0-5 km                  | 80-90 km        | -0.0003 | 0.0001    | -3.5  | 0.000 | -0.0005        | -0.0001  |
| 5-10 km                 | 80-90 km        | -0.0004 | 0.0001    | -4.7  | 0.000 | -0.0006        | -0.0002  |
| 10-15 km                | 80-90 km        | -0.0003 | 0.0001    | -2.9  | 0.004 | -0.0005        | -0.0001  |
| 15-20 km                | 80-90 km        | -0.0004 | 0.0001    | -4.4  | 0.000 | -0.0006        | -0.0002  |
| 20-25 km                | 80-90 km        | -0.0004 | 0.0001    | -4.3  | 0.000 | -0.0006        | -0.0002  |
| 25-30 km                | 80-90 km        | -0.0004 | 0.0001    | -4.2  | 0.000 | -0.0006        | -0.0002  |
| 30-35 km                | 80-90 km        | -0.0002 | 0.0001    | -1.9  | 0.061 | -0.0004        | 0.0000   |
| 35-40 km                | 80-90 km        | -0.0003 | 0.0002    | -2.1  | 0.040 | -0.0006        | 0.0000   |
| 40-45 km                | 80-90 km        | -0.0006 | 0.0002    | -3.4  | 0.001 | -0.0010        | -0.0003  |
| 45-50 km                | 80-90 km        | -0.0001 | 0.0002    | -0.5  | 0.601 | -0.0006        | 0.0004   |
| >50 km                  | 80-90 km        | -0.0004 | 0.0001    | -4.7  | 0.000 | -0.0006        | -0.0002  |
| 0-5 km                  | 90-100 km       | -0.0004 | 0.0001    | -3.7  | 0.000 | -0.0005        | -0.0002  |
| 5-10 km                 | 90-100 km       | -0.0005 | 0.0001    | -5.6  | 0.000 | -0.0007        | -0.0003  |
| 10-15 km                | 90-100 km       | -0.0004 | 0.0001    | -3.9  | 0.000 | -0.0006        | -0.0002  |
| 15-20 km                | 90-100 km       | -0.0003 | 0.0001    | -2.9  | 0.004 | -0.0005        | -0.0001  |
| 20-25 km                | 90-100 km       | -0.0002 | 0.0001    | -1.8  | 0.066 | -0.0004        | 0.0000   |
| 25-30 km                | 90-100 km       | -0.0005 | 0.0001    | -5.0  | 0.000 | -0.0007        | -0.0003  |
| 30-35 km                | 90-100 km       | -0.0003 | 0.0001    | -2.9  | 0.003 | -0.0005        | -0.0001  |
| 35-40 km                | 90-100 km       | -0.0006 | 0.0002    | -3.2  | 0.001 | -0.0009        | -0.0002  |
| 40-45 km                | 90-100 km       | -0.0001 | 0.0002    | -0.8  | 0.448 | -0.0005        | 0.0002   |
| 45-50 km                | 90-100 km       | -0.0008 | 0.0002    | -4.8  | 0.000 | -0.0011        | -0.0005  |
| >50 km                  | 90-100 km       | -0.0004 | 0.0001    | -3.3  | 0.001 | -0.0006        | -0.0002  |
| 0-5 km                  | >100 km         | -0.0004 | 0.0000    | -13.1 | 0.000 | -0.0005        | -0.0004  |
| 5-10 km                 | >100 km         | -0.0004 | 0.0000    | -12.7 | 0.000 | -0.0005        | -0.0003  |
| 10-15 km                | >100 km         | -0.0004 | 0.0000    | -11.1 | 0.000 | -0.0004        | -0.0003  |
| 15-20 km                | >100 km         | -0.0004 | 0.0000    | -10.6 | 0.000 | -0.0004        | -0.0003  |
| 20-25 km                | >100 km         | -0.0003 | 0.0000    | -7.2  | 0.000 | -0.0003        | -0.0002  |
| 25-30 km                | >100 km         | -0.0003 | 0.0000    | -7.4  | 0.000 | -0.0004        | -0.0002  |
| 30-35 km                | >100 km         | -0.0002 | 0.0000    | -6.5  | 0.000 | -0.0003        | -0.0002  |
| 35-40 km                | >100 km         | -0.0002 | 0.0000    | -5.0  | 0.000 | -0.0003        | -0.0001  |
| 40-45 km                | >100 km         | -0.0001 | 0.0001    | -0.6  | 0.524 | -0.0002        | 0.0001   |
| 45-50 km                | >100 km         | -0.0002 | 0.0000    | -4.0  | 0.000 | -0.0003        | -0.0001  |
| >50 km                  | >100 km         | 0.0000  | (omitted) |       |       |                |          |
| Controls                |                 |         |           |       |       |                | Yes      |
| Coloniser fixed effects |                 |         |           |       |       |                | Yes      |
| Country fixed effects   |                 |         |           |       |       |                | Yes      |
| Std. err.               |                 |         |           |       |       |                | Robust   |
| $R^2$                   |                 |         |           |       |       |                | 0.3369   |
| N                       |                 |         |           |       |       |                | 245,430  |

*Notes:* The regression model, displayed in Equation 2, controls for latitude, ruggedness, elevation, rainfall, temperature, land suitability for agriculture, malaria, tsetse flies, population density, uninhabited grid cells, major cities, islands, Sub-Saharan Africa, as well as the geodesic distances to coasts, rivers, railways, mines, national borders, historical explorer routes, precolonial cities, Muslim seats, Protestant printing presses, and postcolonial World Bank aid projects. Gaps between the first- and second-nearest mission stations and homeland borders are also accounted for. All variables are log-linearised except binaries. The regression sample excludes grid cells located near mission stations that share a grid cell with a World Bank project.

Table I.3: Night light by distance to mission stations and homeland borders:  
Including World Bank project grid cell ID fixed effects

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 0-10 km         | 0.0002  | 0.0003    | 0.9  | 0.376 | -0.0003        | 0.0008   |
| 5-10 km         | 0-10 km         | 0.0001  | 0.0003    | 0.4  | 0.680 | -0.0004        | 0.0007   |
| 10-15 km        | 0-10 km         | 0.0001  | 0.0003    | 0.5  | 0.651 | -0.0005        | 0.0007   |
| 15-20 km        | 0-10 km         | 0.0012  | 0.0004    | 3.2  | 0.001 | 0.0005         | 0.0019   |
| 20-25 km        | 0-10 km         | 0.0017  | 0.0005    | 3.7  | 0.000 | 0.0008         | 0.0027   |
| 25-30 km        | 0-10 km         | 0.0020  | 0.0005    | 4.0  | 0.000 | 0.0010         | 0.0029   |
| 30-35 km        | 0-10 km         | 0.0022  | 0.0006    | 3.9  | 0.000 | 0.0011         | 0.0034   |
| 35-40 km        | 0-10 km         | 0.0019  | 0.0006    | 3.0  | 0.003 | 0.0007         | 0.0032   |
| 40-45 km        | 0-10 km         | 0.0019  | 0.0007    | 2.8  | 0.005 | 0.0006         | 0.0033   |
| 45-50 km        | 0-10 km         | 0.0030  | 0.0007    | 4.1  | 0.000 | 0.0015         | 0.0044   |
| >50 km          | 0-10 km         | 0.0029  | 0.0003    | 9.7  | 0.000 | 0.0023         | 0.0035   |
| 0-5 km          | 10-20 km        | -0.0003 | 0.0001    | -2.1 | 0.032 | -0.0005        | 0.0000   |
| 5-10 km         | 10-20 km        | -0.0001 | 0.0001    | -0.7 | 0.492 | -0.0004        | 0.0002   |
| 10-15 km        | 10-20 km        | 0.0000  | 0.0002    | 0.1  | 0.942 | -0.0003        | 0.0004   |
| 15-20 km        | 10-20 km        | -0.0002 | 0.0002    | -1.2 | 0.233 | -0.0006        | 0.0001   |
| 20-25 km        | 10-20 km        | 0.0002  | 0.0002    | 1.1  | 0.259 | -0.0002        | 0.0007   |
| 25-30 km        | 10-20 km        | 0.0005  | 0.0003    | 1.9  | 0.055 | 0.0000         | 0.0010   |
| 30-35 km        | 10-20 km        | 0.0003  | 0.0003    | 1.1  | 0.271 | -0.0002        | 0.0008   |
| 35-40 km        | 10-20 km        | 0.0008  | 0.0003    | 2.3  | 0.020 | 0.0001         | 0.0014   |
| 40-45 km        | 10-20 km        | 0.0011  | 0.0003    | 3.3  | 0.001 | 0.0005         | 0.0018   |
| 45-50 km        | 10-20 km        | 0.0004  | 0.0003    | 1.2  | 0.234 | -0.0002        | 0.0010   |
| >50 km          | 10-20 km        | 0.0004  | 0.0002    | 2.6  | 0.009 | 0.0001         | 0.0008   |
| 0-5 km          | 20-30 km        | -0.0002 | 0.0001    | -1.6 | 0.108 | -0.0004        | 0.0000   |
| 5-10 km         | 20-30 km        | -0.0001 | 0.0001    | -0.6 | 0.519 | -0.0003        | 0.0002   |
| 10-15 km        | 20-30 km        | -0.0002 | 0.0001    | -1.1 | 0.276 | -0.0004        | 0.0001   |
| 15-20 km        | 20-30 km        | -0.0003 | 0.0001    | -1.8 | 0.067 | -0.0005        | 0.0000   |
| 20-25 km        | 20-30 km        | -0.0003 | 0.0002    | -1.8 | 0.079 | -0.0006        | 0.0000   |
| 25-30 km        | 20-30 km        | -0.0003 | 0.0002    | -2.2 | 0.028 | -0.0007        | 0.0000   |
| 30-35 km        | 20-30 km        | 0.0002  | 0.0002    | 1.0  | 0.322 | -0.0002        | 0.0006   |
| 35-40 km        | 20-30 km        | -0.0004 | 0.0002    | -1.6 | 0.107 | -0.0008        | 0.0001   |
| 40-45 km        | 20-30 km        | -0.0001 | 0.0002    | -0.4 | 0.696 | -0.0004        | 0.0003   |
| 45-50 km        | 20-30 km        | -0.0003 | 0.0003    | -1.3 | 0.192 | -0.0009        | 0.0002   |
| >50 km          | 20-30 km        | 0.0000  | 0.0001    | -0.2 | 0.805 | -0.0003        | 0.0002   |
| 0-5 km          | 30-40 km        | -0.0001 | 0.0001    | -0.7 | 0.455 | -0.0003        | 0.0001   |
| 5-10 km         | 30-40 km        | -0.0002 | 0.0001    | -1.4 | 0.158 | -0.0004        | 0.0001   |
| 10-15 km        | 30-40 km        | -0.0003 | 0.0001    | -3.3 | 0.001 | -0.0005        | -0.0001  |
| 15-20 km        | 30-40 km        | -0.0004 | 0.0001    | -3.4 | 0.001 | -0.0006        | -0.0002  |
| 20-25 km        | 30-40 km        | -0.0002 | 0.0001    | -1.2 | 0.222 | -0.0004        | 0.0001   |
| 25-30 km        | 30-40 km        | -0.0005 | 0.0001    | -3.8 | 0.000 | -0.0008        | -0.0003  |
| 30-35 km        | 30-40 km        | -0.0006 | 0.0001    | -4.4 | 0.000 | -0.0008        | -0.0003  |
| 35-40 km        | 30-40 km        | -0.0006 | 0.0002    | -3.4 | 0.001 | -0.0009        | -0.0002  |
| 40-45 km        | 30-40 km        | -0.0006 | 0.0002    | -3.4 | 0.001 | -0.0009        | -0.0002  |
| 45-50 km        | 30-40 km        | -0.0009 | 0.0002    | -3.8 | 0.000 | -0.0013        | -0.0004  |
| >50 km          | 30-40 km        | 0.0001  | 0.0002    | 0.4  | 0.721 | -0.0004        | 0.0005   |

Table I.3: Night light by distance to mission stations and homeland borders:  
Including World Bank project grid cell ID fixed effects (continued)

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 40-50 km        | -0.0002 | 0.0001    | -2.2 | 0.028 | -0.0004        | 0.0000   |
| 5-10 km         | 40-50 km        | -0.0001 | 0.0001    | -1.6 | 0.112 | -0.0003        | 0.0000   |
| 10-15 km        | 40-50 km        | -0.0003 | 0.0001    | -3.6 | 0.000 | -0.0005        | -0.0001  |
| 15-20 km        | 40-50 km        | -0.0003 | 0.0001    | -2.9 | 0.004 | -0.0005        | -0.0001  |
| 20-25 km        | 40-50 km        | -0.0005 | 0.0001    | -4.9 | 0.000 | -0.0008        | -0.0003  |
| 25-30 km        | 40-50 km        | -0.0004 | 0.0001    | -3.9 | 0.000 | -0.0006        | -0.0002  |
| 30-35 km        | 40-50 km        | -0.0005 | 0.0001    | -3.3 | 0.001 | -0.0007        | -0.0002  |
| 35-40 km        | 40-50 km        | -0.0005 | 0.0002    | -3.0 | 0.002 | -0.0008        | -0.0002  |
| 40-45 km        | 40-50 km        | -0.0009 | 0.0002    | -6.0 | 0.000 | -0.0012        | -0.0006  |
| 45-50 km        | 40-50 km        | -0.0003 | 0.0002    | -1.3 | 0.197 | -0.0008        | 0.0002   |
| >50 km          | 40-50 km        | -0.0001 | 0.0001    | -0.9 | 0.394 | -0.0003        | 0.0001   |
| 0-5 km          | 50-60 km        | -0.0001 | 0.0001    | -0.9 | 0.365 | -0.0002        | 0.0001   |
| 5-10 km         | 50-60 km        | -0.0002 | 0.0001    | -2.3 | 0.022 | -0.0004        | 0.0000   |
| 10-15 km        | 50-60 km        | -0.0002 | 0.0001    | -2.1 | 0.039 | -0.0004        | 0.0000   |
| 15-20 km        | 50-60 km        | -0.0001 | 0.0001    | -1.1 | 0.267 | -0.0003        | 0.0001   |
| 20-25 km        | 50-60 km        | -0.0001 | 0.0001    | -0.8 | 0.452 | -0.0003        | 0.0001   |
| 25-30 km        | 50-60 km        | -0.0003 | 0.0001    | -2.2 | 0.025 | -0.0005        | 0.0000   |
| 30-35 km        | 50-60 km        | -0.0004 | 0.0001    | -3.7 | 0.000 | -0.0007        | -0.0002  |
| 35-40 km        | 50-60 km        | -0.0004 | 0.0001    | -3.3 | 0.001 | -0.0007        | -0.0002  |
| 40-45 km        | 50-60 km        | -0.0004 | 0.0002    | -2.1 | 0.033 | -0.0007        | 0.0000   |
| 45-50 km        | 50-60 km        | -0.0004 | 0.0002    | -3.0 | 0.003 | -0.0007        | -0.0002  |
| >50 km          | 50-60 km        | 0.0000  | 0.0001    | -0.2 | 0.879 | -0.0002        | 0.0002   |
| 0-5 km          | 60-70 km        | -0.0002 | 0.0001    | -2.0 | 0.041 | -0.0004        | 0.0000   |
| 5-10 km         | 60-70 km        | 0.0000  | 0.0001    | -0.4 | 0.683 | -0.0003        | 0.0002   |
| 10-15 km        | 60-70 km        | -0.0003 | 0.0001    | -3.3 | 0.001 | -0.0005        | -0.0001  |
| 15-20 km        | 60-70 km        | -0.0001 | 0.0001    | -1.0 | 0.315 | -0.0003        | 0.0001   |
| 20-25 km        | 60-70 km        | -0.0003 | 0.0001    | -3.4 | 0.001 | -0.0005        | -0.0002  |
| 25-30 km        | 60-70 km        | -0.0003 | 0.0001    | -2.2 | 0.026 | -0.0005        | 0.0000   |
| 30-35 km        | 60-70 km        | 0.0002  | 0.0002    | 1.0  | 0.327 | -0.0002        | 0.0005   |
| 35-40 km        | 60-70 km        | -0.0003 | 0.0001    | -2.0 | 0.046 | -0.0005        | 0.0000   |
| 40-45 km        | 60-70 km        | -0.0003 | 0.0001    | -2.2 | 0.029 | -0.0006        | 0.0000   |
| 45-50 km        | 60-70 km        | -0.0005 | 0.0001    | -3.6 | 0.000 | -0.0008        | -0.0002  |
| >50 km          | 60-70 km        | -0.0001 | 0.0001    | -0.8 | 0.403 | -0.0003        | 0.0001   |
| 0-5 km          | 70-80 km        | 0.0000  | 0.0001    | 0.2  | 0.849 | -0.0002        | 0.0002   |
| 5-10 km         | 70-80 km        | -0.0001 | 0.0001    | -1.3 | 0.196 | -0.0003        | 0.0001   |
| 10-15 km        | 70-80 km        | -0.0002 | 0.0001    | -2.0 | 0.044 | -0.0004        | 0.0000   |
| 15-20 km        | 70-80 km        | -0.0004 | 0.0001    | -4.4 | 0.000 | -0.0005        | -0.0002  |
| 20-25 km        | 70-80 km        | -0.0002 | 0.0001    | -2.1 | 0.034 | -0.0004        | 0.0000   |
| 25-30 km        | 70-80 km        | -0.0001 | 0.0001    | -0.6 | 0.546 | -0.0003        | 0.0002   |
| 30-35 km        | 70-80 km        | -0.0002 | 0.0001    | -2.0 | 0.041 | -0.0004        | 0.0000   |
| 35-40 km        | 70-80 km        | 0.0000  | 0.0001    | 0.1  | 0.912 | -0.0002        | 0.0003   |
| 40-45 km        | 70-80 km        | 0.0001  | 0.0002    | 0.3  | 0.759 | -0.0003        | 0.0004   |
| 45-50 km        | 70-80 km        | 0.0000  | 0.0002    | 0.2  | 0.838 | -0.0004        | 0.0005   |
| >50 km          | 70-80 km        | 0.0000  | 0.0001    | -0.1 | 0.901 | -0.0002        | 0.0002   |

Table I.3: Night light by distance to mission stations and homeland borders:  
Including World Bank project grid cell ID fixed effects (continued)

| Homeland border         | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-------------------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km                  | 80-90 km        | -0.0001 | 0.0001    | -1.2 | 0.234 | -0.0003        | 0.0001   |
| 5-10 km                 | 80-90 km        | -0.0002 | 0.0001    | -2.5 | 0.012 | -0.0004        | 0.0000   |
| 10-15 km                | 80-90 km        | 0.0000  | 0.0001    | -0.5 | 0.603 | -0.0002        | 0.0001   |
| 15-20 km                | 80-90 km        | -0.0002 | 0.0001    | -2.0 | 0.041 | -0.0004        | 0.0000   |
| 20-25 km                | 80-90 km        | -0.0002 | 0.0001    | -1.7 | 0.097 | -0.0004        | 0.0000   |
| 25-30 km                | 80-90 km        | -0.0001 | 0.0001    | -1.2 | 0.230 | -0.0003        | 0.0001   |
| 30-35 km                | 80-90 km        | 0.0000  | 0.0001    | 0.2  | 0.849 | -0.0002        | 0.0002   |
| 35-40 km                | 80-90 km        | 0.0000  | 0.0001    | -0.3 | 0.751 | -0.0003        | 0.0002   |
| 40-45 km                | 80-90 km        | -0.0004 | 0.0002    | -2.5 | 0.012 | -0.0008        | -0.0001  |
| 45-50 km                | 80-90 km        | 0.0001  | 0.0002    | 0.4  | 0.671 | -0.0004        | 0.0006   |
| >50 km                  | 80-90 km        | 0.0000  | 0.0001    | -0.2 | 0.840 | -0.0002        | 0.0002   |
| 0-5 km                  | 90-100 km       | -0.0002 | 0.0001    | -2.7 | 0.007 | -0.0004        | -0.0001  |
| 5-10 km                 | 90-100 km       | -0.0003 | 0.0001    | -3.2 | 0.001 | -0.0004        | -0.0001  |
| 10-15 km                | 90-100 km       | -0.0002 | 0.0001    | -1.8 | 0.079 | -0.0003        | 0.0000   |
| 15-20 km                | 90-100 km       | -0.0002 | 0.0001    | -1.7 | 0.090 | -0.0003        | 0.0000   |
| 20-25 km                | 90-100 km       | 0.0000  | 0.0001    | 0.0  | 0.996 | -0.0002        | 0.0002   |
| 25-30 km                | 90-100 km       | -0.0003 | 0.0001    | -2.6 | 0.011 | -0.0005        | -0.0001  |
| 30-35 km                | 90-100 km       | -0.0002 | 0.0001    | -2.2 | 0.025 | -0.0004        | 0.0000   |
| 35-40 km                | 90-100 km       | -0.0002 | 0.0002    | -1.5 | 0.139 | -0.0006        | 0.0001   |
| 40-45 km                | 90-100 km       | 0.0000  | 0.0002    | 0.2  | 0.813 | -0.0003        | 0.0004   |
| 45-50 km                | 90-100 km       | -0.0005 | 0.0002    | -3.1 | 0.002 | -0.0008        | -0.0002  |
| >50 km                  | 90-100 km       | 0.0001  | 0.0001    | 0.7  | 0.455 | -0.0001        | 0.0003   |
| 0-5 km                  | >100 km         | -0.0002 | 0.0000    | -6.6 | 0.000 | -0.0002        | -0.0001  |
| 5-10 km                 | >100 km         | -0.0002 | 0.0000    | -7.4 | 0.000 | -0.0003        | -0.0002  |
| 10-15 km                | >100 km         | -0.0002 | 0.0000    | -5.5 | 0.000 | -0.0002        | -0.0001  |
| 15-20 km                | >100 km         | -0.0002 | 0.0000    | -6.3 | 0.000 | -0.0003        | -0.0001  |
| 20-25 km                | >100 km         | -0.0001 | 0.0000    | -2.8 | 0.005 | -0.0002        | 0.0000   |
| 25-30 km                | >100 km         | -0.0002 | 0.0000    | -4.4 | 0.000 | -0.0002        | -0.0001  |
| 30-35 km                | >100 km         | -0.0001 | 0.0000    | -2.1 | 0.034 | -0.0001        | 0.0000   |
| 35-40 km                | >100 km         | -0.0001 | 0.0000    | -2.0 | 0.045 | -0.0002        | 0.0000   |
| 40-45 km                | >100 km         | 0.0001  | 0.0001    | 1.0  | 0.317 | -0.0001        | 0.0002   |
| 45-50 km                | >100 km         | -0.0001 | 0.0000    | -1.5 | 0.137 | -0.0001        | 0.0000   |
| >50 km                  | >100 km         | 0.0000  | (omitted) |      |       |                |          |
| Controls                |                 |         |           |      |       |                | Yes      |
| Coloniser fixed effects |                 |         |           |      |       |                | Yes      |
| Country fixed effects   |                 |         |           |      |       |                | Yes      |
| Std. err.               |                 |         |           |      |       |                | Robust   |
| $R^2$                   |                 |         |           |      |       |                | 0.47884  |
| N                       |                 |         |           |      |       |                | 257,224  |

*Notes:* The regression model, displayed in Equation 2, controls for latitude, ruggedness, elevation, rainfall, temperature, land suitability for agriculture, malaria, tsetse flies, population density, uninhabited grid cells, major cities, islands, Sub-Saharan Africa, as well as the geodesic distances to coasts, rivers, railways, mines, national borders, historical explorer routes, precolonial cities, Muslim seats, Protestant printing presses, and postcolonial World Bank aid projects. Gaps between the first- and second-nearest mission stations and homeland borders are also accounted for. All variables are log-linearised except binaries. The regression model also controls for World Bank project fixed effects.

Table I.4: Night light by distance to mission stations and homeland borders:  
World Bank Disbursements weighted by inverse distance

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 0-10 km         | 0.0001  | 0.0004    | 0.3  | 0.777 | -0.0007        | 0.0009   |
| 5-10 km         | 0-10 km         | 0.0004  | 0.0004    | 0.8  | 0.423 | -0.0005        | 0.0012   |
| 10-15 km        | 0-10 km         | 0.0005  | 0.0005    | 1.0  | 0.319 | -0.0004        | 0.0014   |
| 15-20 km        | 0-10 km         | 0.0013  | 0.0005    | 2.4  | 0.016 | 0.0002         | 0.0023   |
| 15-20 km        | 0-10 km         | 0.0013  | 0.0005    | 2.4  | 0.016 | 0.0002         | 0.0023   |
| 15-20 km        | 0-10 km         | 0.0013  | 0.0005    | 2.4  | 0.016 | 0.0002         | 0.0023   |
| 15-20 km        | 0-10 km         | 0.0013  | 0.0005    | 2.4  | 0.016 | 0.0002         | 0.0023   |
| 20-25 km        | 0-10 km         | 0.0014  | 0.0006    | 2.3  | 0.020 | 0.0002         | 0.0025   |
| 25-30 km        | 0-10 km         | 0.0011  | 0.0005    | 2.1  | 0.040 | 0.0001         | 0.0022   |
| 30-35 km        | 0-10 km         | 0.0021  | 0.0007    | 2.8  | 0.004 | 0.0007         | 0.0035   |
| 35-40 km        | 0-10 km         | 0.0026  | 0.0009    | 3.1  | 0.002 | 0.0009         | 0.0043   |
| 40-45 km        | 0-10 km         | 0.0026  | 0.0010    | 2.7  | 0.007 | 0.0007         | 0.0045   |
| 45-50 km        | 0-10 km         | 0.0050  | 0.0011    | 4.4  | 0.000 | 0.0028         | 0.0072   |
| >50 km          | 0-10 km         | 0.0049  | 0.0004    | 11.9 | 0.000 | 0.0041         | 0.0057   |
| 0-5 km          | 10-20 km        | -0.0005 | 0.0002    | -2.9 | 0.003 | -0.0009        | -0.0002  |
| 5-10 km         | 10-20 km        | -0.0003 | 0.0002    | -1.5 | 0.123 | -0.0007        | 0.0001   |
| 10-15 km        | 10-20 km        | -0.0003 | 0.0002    | -1.1 | 0.289 | -0.0007        | 0.0002   |
| 15-20 km        | 10-20 km        | -0.0005 | 0.0002    | -2.1 | 0.037 | -0.0010        | -0.0000  |
| 20-25 km        | 10-20 km        | -0.0001 | 0.0003    | -0.2 | 0.828 | -0.0006        | 0.0005   |
| 25-30 km        | 10-20 km        | 0.0002  | 0.0003    | 0.6  | 0.576 | -0.0005        | 0.0008   |
| 30-35 km        | 10-20 km        | 0.0001  | 0.0003    | 0.4  | 0.722 | -0.0005        | 0.0008   |
| 35-40 km        | 10-20 km        | 0.0004  | 0.0004    | 1.1  | 0.289 | -0.0004        | 0.0012   |
| 40-45 km        | 10-20 km        | 0.0006  | 0.0004    | 1.5  | 0.123 | -0.0002        | 0.0015   |
| 45-50 km        | 10-20 km        | 0.0007  | 0.0005    | 1.4  | 0.149 | -0.0003        | 0.0016   |
| >50 km          | 10-20 km        | 0.0008  | 0.0002    | 3.8  | 0.000 | 0.0004         | 0.0013   |
| 0-5 km          | 20-30 km        | -0.0006 | 0.0001    | -4.3 | 0.000 | -0.0009        | -0.0003  |
| 5-10 km         | 20-30 km        | -0.0004 | 0.0002    | -2.3 | 0.024 | -0.0007        | -0.0001  |
| 10-15 km        | 20-30 km        | -0.0005 | 0.0002    | -3.0 | 0.003 | -0.0008        | -0.0002  |
| 15-20 km        | 20-30 km        | -0.0006 | 0.0002    | -2.8 | 0.005 | -0.0009        | -0.0002  |
| 20-25 km        | 20-30 km        | -0.0006 | 0.0002    | -2.7 | 0.007 | -0.0010        | -0.0002  |
| 25-30 km        | 20-30 km        | -0.0006 | 0.0002    | -3.5 | 0.000 | -0.0010        | -0.0003  |
| 30-35 km        | 20-30 km        | -0.0001 | 0.0003    | -0.3 | 0.737 | -0.0006        | 0.0004   |
| 35-40 km        | 20-30 km        | -0.0007 | 0.0003    | -2.5 | 0.011 | -0.0012        | -0.0002  |
| 40-45 km        | 20-30 km        | -0.0003 | 0.0003    | -1.3 | 0.193 | -0.0009        | 0.0002   |
| 45-50 km        | 20-30 km        | -0.0005 | 0.0003    | -1.5 | 0.124 | -0.0012        | 0.0001   |
| >50 km          | 20-30 km        | -0.0001 | 0.0001    | -0.6 | 0.579 | -0.0004        | 0.0002   |
| 0-5 km          | 30-40 km        | -0.0004 | 0.0001    | -3.1 | 0.002 | -0.0007        | -0.0001  |
| 5-10 km         | 30-40 km        | -0.0006 | 0.0001    | -4.2 | 0.000 | -0.0009        | -0.0003  |
| 10-15 km        | 30-40 km        | -0.0006 | 0.0001    | -5.7 | 0.000 | -0.0008        | -0.0004  |
| 15-20 km        | 30-40 km        | -0.0007 | 0.0001    | -5.3 | 0.000 | -0.0010        | -0.0004  |
| 20-25 km        | 30-40 km        | -0.0004 | 0.0002    | -2.6 | 0.009 | -0.0007        | -0.0001  |
| 25-30 km        | 30-40 km        | -0.0008 | 0.0002    | -4.6 | 0.000 | -0.0012        | -0.0005  |
| 30-35 km        | 30-40 km        | -0.0008 | 0.0002    | -5.3 | 0.000 | -0.0011        | -0.0005  |
| 35-40 km        | 30-40 km        | -0.0006 | 0.0002    | -2.8 | 0.004 | -0.0010        | -0.0002  |
| 40-45 km        | 30-40 km        | -0.0006 | 0.0002    | -3.1 | 0.002 | -0.0010        | -0.0002  |
| 45-50 km        | 30-40 km        | -0.0009 | 0.0003    | -3.1 | 0.002 | -0.0014        | -0.0003  |
| >50 km          | 30-40 km        | 0.0002  | 0.0003    | 0.7  | 0.486 | -0.0004        | 0.0008   |

Table I.4: Night light by distance to mission stations and homeland borders:  
World Bank disbursements weighted by inverse distance (continued)

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 40-50 km        | -0.0006 | 0.0001    | -5.8 | 0.000 | -0.0008        | -0.0004  |
| 5-10 km         | 40-50 km        | -0.0006 | 0.0001    | -5.6 | 0.000 | -0.0008        | -0.0004  |
| 10-15 km        | 40-50 km        | -0.0006 | 0.0001    | -5.9 | 0.000 | -0.0008        | -0.0004  |
| 15-20 km        | 40-50 km        | -0.0006 | 0.0001    | -5.3 | 0.000 | -0.0009        | -0.0004  |
| 20-25 km        | 40-50 km        | -0.0010 | 0.0001    | -6.7 | 0.000 | -0.0012        | -0.0007  |
| 25-30 km        | 40-50 km        | -0.0007 | 0.0001    | -6.0 | 0.000 | -0.0009        | -0.0005  |
| 30-35 km        | 40-50 km        | -0.0006 | 0.0002    | -3.7 | 0.000 | -0.0010        | -0.0003  |
| 35-40 km        | 40-50 km        | -0.0008 | 0.0002    | -3.7 | 0.000 | -0.0012        | -0.0004  |
| 40-45 km        | 40-50 km        | -0.0011 | 0.0002    | -5.8 | 0.000 | -0.0015        | -0.0007  |
| 45-50 km        | 40-50 km        | -0.0002 | 0.0003    | -0.8 | 0.451 | -0.0008        | 0.0004   |
| >50 km          | 40-50 km        | -0.0002 | 0.0001    | -1.6 | 0.119 | -0.0004        | 0.0001   |
| 0-5 km          | 50-60 km        | -0.0005 | 0.0001    | -4.4 | 0.000 | -0.0007        | -0.0003  |
| 5-10 km         | 50-60 km        | -0.0005 | 0.0001    | -5.3 | 0.000 | -0.0008        | -0.0003  |
| 10-15 km        | 50-60 km        | -0.0006 | 0.0001    | -5.6 | 0.000 | -0.0008        | -0.0004  |
| 15-20 km        | 50-60 km        | -0.0005 | 0.0001    | -3.6 | 0.000 | -0.0007        | -0.0002  |
| 20-25 km        | 50-60 km        | -0.0004 | 0.0001    | -3.2 | 0.001 | -0.0007        | -0.0002  |
| 25-30 km        | 50-60 km        | -0.0005 | 0.0001    | -3.4 | 0.001 | -0.0008        | -0.0002  |
| 30-35 km        | 50-60 km        | -0.0008 | 0.0001    | -5.3 | 0.000 | -0.0010        | -0.0005  |
| 35-40 km        | 50-60 km        | -0.0006 | 0.0002    | -3.4 | 0.001 | -0.0009        | -0.0002  |
| 40-45 km        | 50-60 km        | -0.0004 | 0.0002    | -1.6 | 0.120 | -0.0008        | 0.0001   |
| 45-50 km        | 50-60 km        | -0.0008 | 0.0002    | -3.7 | 0.000 | -0.0012        | -0.0004  |
| >50 km          | 50-60 km        | -0.0002 | 0.0001    | -1.7 | 0.083 | -0.0004        | 0.0000   |
| 0-5 km          | 60-70 km        | -0.0005 | 0.0001    | -3.9 | 0.000 | -0.0008        | -0.0003  |
| 5-10 km         | 60-70 km        | -0.0003 | 0.0002    | -1.8 | 0.065 | -0.0006        | 0.0000   |
| 10-15 km        | 60-70 km        | -0.0006 | 0.0001    | -5.2 | 0.000 | -0.0008        | -0.0004  |
| 15-20 km        | 60-70 km        | -0.0005 | 0.0001    | -4.3 | 0.000 | -0.0008        | -0.0003  |
| 20-25 km        | 60-70 km        | -0.0005 | 0.0002    | -4.3 | 0.000 | -0.0008        | -0.0003  |
| 25-30 km        | 60-70 km        | -0.0006 | 0.0002    | -3.5 | 0.000 | -0.0009        | -0.0002  |
| 30-35 km        | 60-70 km        | -0.0003 | 0.0002    | -2.2 | 0.029 | -0.0006        | -0.0000  |
| 35-40 km        | 60-70 km        | -0.0007 | 0.0002    | -4.1 | 0.000 | -0.0010        | -0.0003  |
| 40-45 km        | 60-70 km        | -0.0005 | 0.0002    | -2.6 | 0.008 | -0.0008        | -0.0001  |
| 45-50 km        | 60-70 km        | -0.0009 | 0.0002    | -5.1 | 0.000 | -0.0013        | -0.0006  |
| >50 km          | 60-70 km        | -0.0004 | 0.0001    | -3.7 | 0.000 | -0.0006        | -0.0002  |
| 0-5 km          | 70-80 km        | -0.0003 | 0.0001    | -1.9 | 0.063 | -0.0005        | 0.0000   |
| 5-10 km         | 70-80 km        | -0.0003 | 0.0001    | -2.0 | 0.046 | -0.0006        | 0.0000   |
| 10-15 km        | 70-80 km        | -0.0006 | 0.0001    | -4.3 | 0.000 | -0.0008        | -0.0003  |
| 15-20 km        | 70-80 km        | -0.0005 | 0.0001    | -4.7 | 0.000 | -0.0007        | -0.0003  |
| 20-25 km        | 70-80 km        | -0.0004 | 0.0001    | -3.2 | 0.001 | -0.0006        | -0.0002  |
| 25-30 km        | 70-80 km        | -0.0003 | 0.0002    | -1.6 | 0.102 | -0.0007        | 0.0001   |
| 30-35 km        | 70-80 km        | -0.0005 | 0.0001    | -3.8 | 0.000 | -0.0008        | -0.0002  |
| 35-40 km        | 70-80 km        | -0.0003 | 0.0002    | -1.4 | 0.161 | -0.0006        | 0.0001   |
| 40-45 km        | 70-80 km        | -0.0002 | 0.0002    | -0.8 | 0.435 | -0.0006        | 0.0003   |
| 45-50 km        | 70-80 km        | -0.0004 | 0.0003    | -1.4 | 0.155 | -0.0009        | 0.0002   |
| >50 km          | 70-80 km        | -0.0004 | 0.0001    | -3.3 | 0.001 | -0.0006        | -0.0002  |

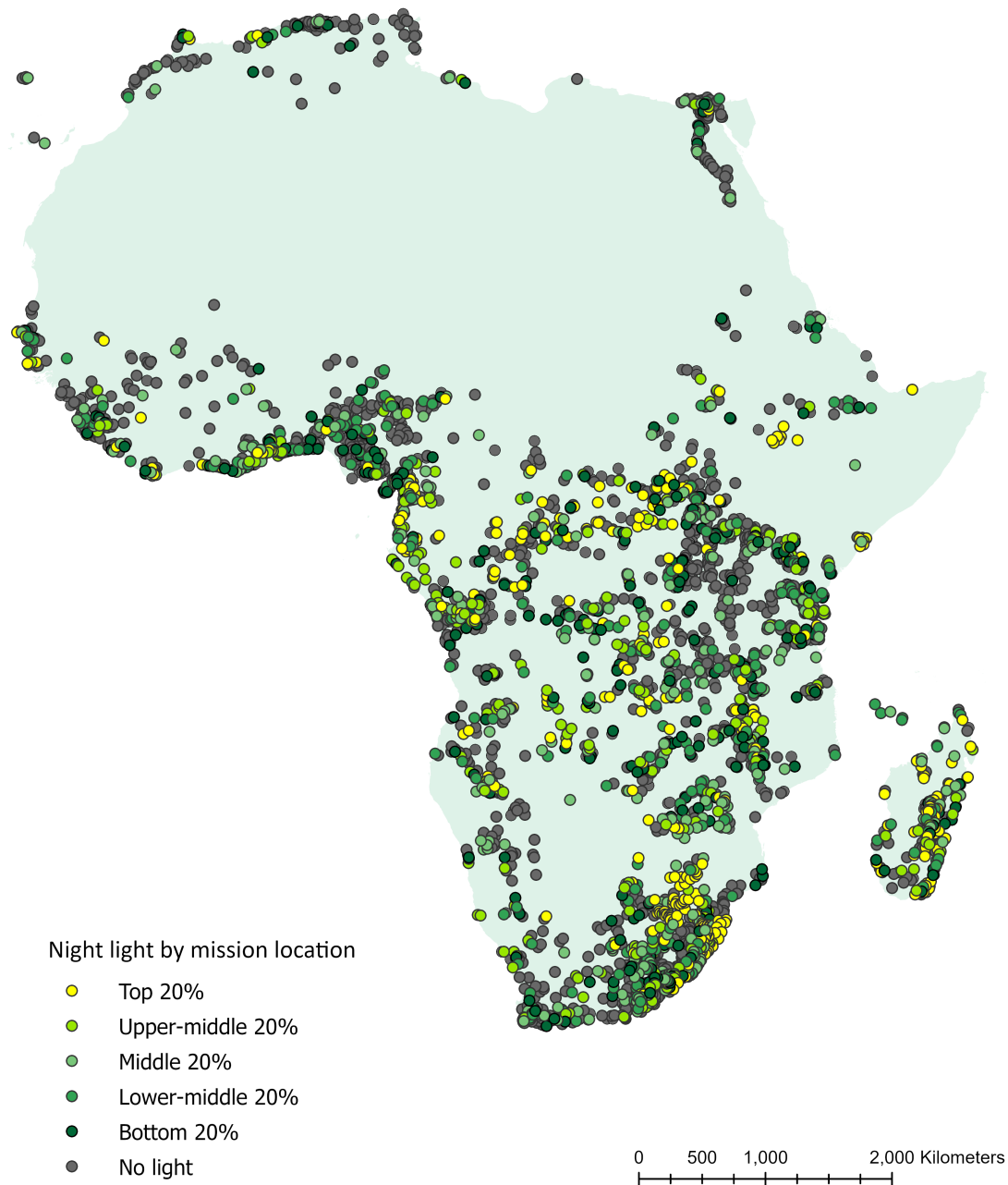
Table I.4: Night light by distance to mission stations and homeland borders:  
World Bank disbursements weighted by inverse distance (continued)

| Homeland border         | Mission station | Coef.   | Std. Err. | t     | P>t   | 95% Confidence | Interval |
|-------------------------|-----------------|---------|-----------|-------|-------|----------------|----------|
| 0-5 km                  | 80-90 km        | -0.0002 | 0.0001    | -1.8  | 0.072 | -0.0004        | 0.0000   |
| 5-10 km                 | 80-90 km        | -0.0003 | 0.0001    | -3.2  | 0.001 | -0.0005        | -0.0001  |
| 10-15 km                | 80-90 km        | -0.0002 | 0.0001    | -1.9  | 0.059 | -0.0005        | 0.0000   |
| 15-20 km                | 80-90 km        | -0.0005 | 0.000     | -3.8  | 0.000 | -0.0007        | -0.0002  |
| 20-25 km                | 80-90 km        | -0.0004 | 0.0001    | -3.6  | 0.000 | -0.0007        | -0.0002  |
| 25-30 km                | 80-90 km        | -0.0004 | 0.0001    | -3.0  | 0.003 | -0.0006        | -0.0001  |
| 30-35 km                | 80-90 km        | -0.0001 | 0.0001    | -0.7  | 0.486 | -0.0004        | 0.0002   |
| 35-40 km                | 80-90 km        | -0.0003 | 0.0002    | -1.4  | 0.161 | -0.0007        | 0.0001   |
| 40-45 km                | 80-90 km        | -0.0006 | 0.0002    | -2.7  | 0.007 | -0.0010        | -0.0002  |
| 45-50 km                | 80-90 km        | -0.0000 | 0.0003    | -0.1  | 0.944 | -0.0006        | 0.0006   |
| >50 km                  | 80-90 km        | -0.0004 | 0.0001    | -3.5  | 0.000 | -0.0006        | -0.0002  |
| 0-5 km                  | 90-100 km       | -0.0003 | 0.0001    | -2.4  | 0.019 | -0.0005        | -0.0001  |
| 5-10 km                 | 90-100 km       | -0.0004 | 0.0001    | -3.9  | 0.000 | -0.0006        | -0.0002  |
| 10-15 km                | 90-100 km       | -0.0003 | 0.0001    | -2.8  | 0.006 | -0.0006        | -0.0001  |
| 15-20 km                | 90-100 km       | -0.0003 | 0.0001    | -2.1  | 0.032 | -0.0005        | -0.0000  |
| 20-25 km                | 90-100 km       | -0.0000 | 0.0001    | -0.1  | 0.917 | -0.0003        | 0.0002   |
| 25-30 km                | 90-100 km       | -0.0004 | 0.0001    | -3.4  | 0.001 | -0.0007        | -0.0002  |
| 30-35 km                | 90-100 km       | -0.0003 | 0.0001    | -2.3  | 0.023 | -0.0005        | -0.0000  |
| 35-40 km                | 90-100 km       | -0.0003 | 0.0002    | -1.6  | 0.108 | -0.0008        | 0.0001   |
| 40-45 km                | 90-100 km       | 0.0001  | 0.0002    | 0.4   | 0.673 | -0.0004        | 0.0005   |
| 45-50 km                | 90-100 km       | -0.0007 | 0.0002    | -3.8  | 0.000 | -0.0011        | -0.0004  |
| >50 km                  | 90-100 km       | -0.0003 | 0.0001    | -2.0  | 0.042 | -0.0006        | -0.0000  |
| 0-5 km                  | >100 km         | -0.0005 | 0.0001    | -12.0 | 0.000 | -0.0005        | -0.0004  |
| 5-10 km                 | >100 km         | -0.0005 | 0.0001    | -12.6 | 0.000 | -0.0005        | -0.0004  |
| 10-15 km                | >100 km         | -0.0004 | 0.0000    | -9.7  | 0.000 | -0.0005        | -0.0003  |
| 15-20 km                | >100 km         | -0.0004 | 0.0000    | -10.7 | 0.000 | -0.0005        | -0.0004  |
| 20-25 km                | >100 km         | -0.0003 | 0.0000    | -7.0  | 0.000 | -0.0004        | -0.0002  |
| 25-30 km                | >100 km         | -0.0003 | 0.0000    | -7.5  | 0.000 | -0.0004        | -0.0003  |
| 30-35 km                | >100 km         | -0.0003 | 0.0000    | -6.4  | 0.000 | -0.0004        | -0.0002  |
| 35-40 km                | >100 km         | -0.0003 | 0.0001    | -5.6  | 0.000 | -0.0004        | -0.0002  |
| 40-45 km                | >100 km         | -0.0001 | 0.0001    | -0.9  | 0.372 | -0.0003        | 0.0001   |
| 45-50 km                | >100 km         | -0.0003 | 0.0001    | -5.5  | 0.000 | -0.0004        | -0.0002  |
| >50 km                  | >100 km         | 0.00000 | (omitted) |       |       |                |          |
| Controls                |                 |         |           |       |       |                | Yes      |
| Coloniser fixed effects |                 |         |           |       |       |                | Yes      |
| Country fixed effects   |                 |         |           |       |       |                | Yes      |
| Std. err.               |                 |         |           |       |       |                | Robust   |
| $R^2$                   |                 |         |           |       |       |                | 0.35198  |
| N                       |                 |         |           |       |       |                | 207,377  |

*Notes:* The regression model, displayed in Equation 2, controls for latitude, ruggedness, elevation, rainfall, temperature, land suitability for agriculture, malaria, tsetse flies, population density, uninhabited grid cells, major cities, islands, Sub-Saharan Africa, as well as the geodesic distances to coasts, rivers, railways, mines, national borders, historical explorer routes, precolonial cities, Muslim seats, Protestant printing presses, and postcolonial World Bank aid projects. Gaps between the first- and second-nearest mission stations and homeland borders are also accounted for. All variables are log-linearised except binaries. The regression controls for the interacted (inverse) distance to a World Bank project and its disbursement. Grid cells surrounding the World Bank projects for which no disbursements were mentioned were excluded from the analysis.

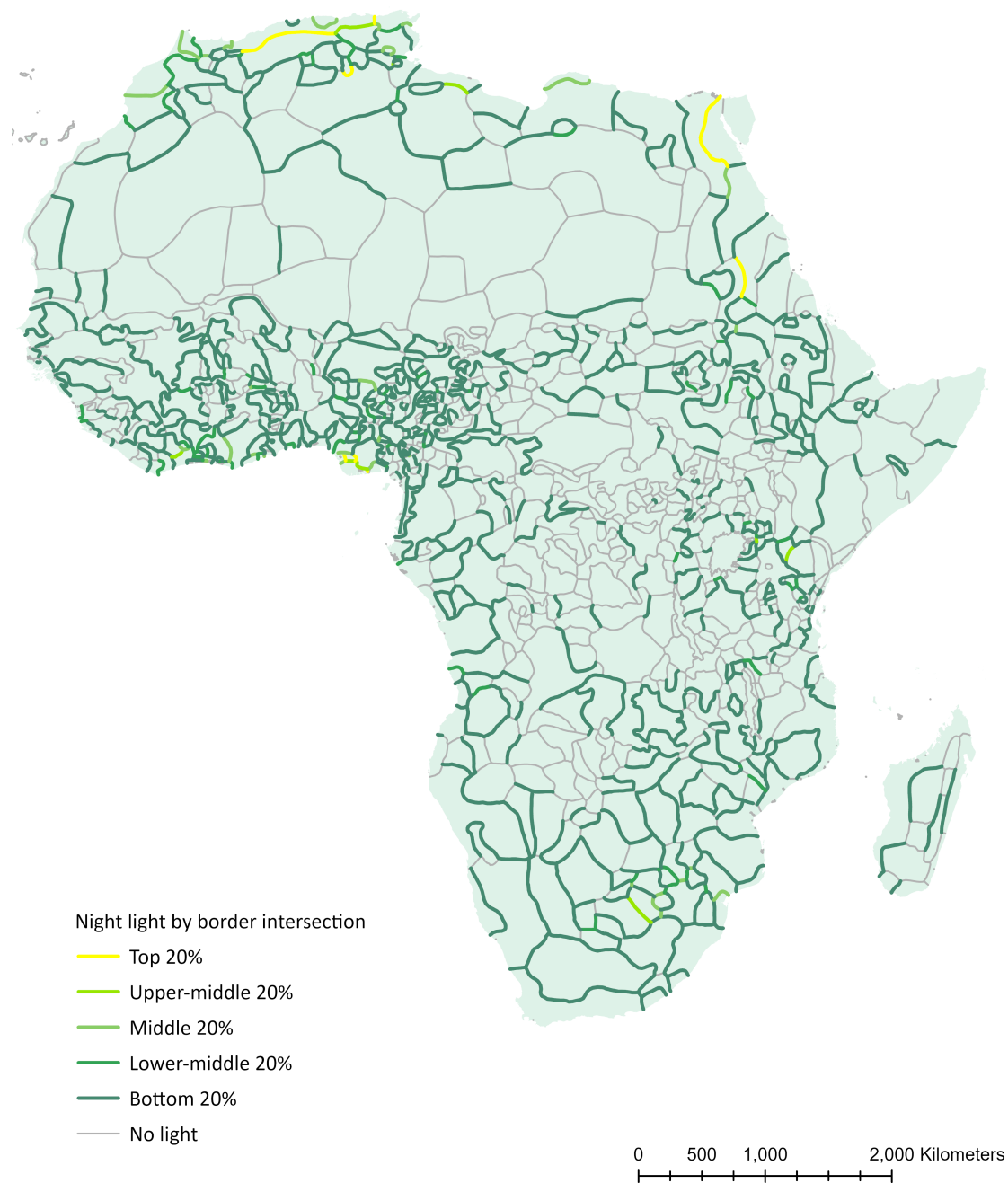
## J Heterogeneity results

Figure J.1: Satellite night light near the colonial mission stations



*Notes:* The map shows the satellite night light near the colonial mission stations. Mission stations with positive night light are ranked using quantiles, while mission stations without night light are illustrated in grey. The ranking used is the same as in Figure J.2.

Figure J.2: Satellite night light near the historical homeland borders



*Notes:* The map shows the satellite night light near the homeland borders. Homeland borders with positive night light are ranked using quantiles, while homeland borders without night light are illustrated in grey. The ranking used is the same as in Figure J.1.

Table J.1: Night light by distance to the nearest mission station and homeland border:  
Mission station ID fixed effects

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 0-10 km         | 0.0002  | 0.0003    | 0.6  | 0.578 | -0.0004        | 0.0007   |
| 5-10 km         | 0-10 km         | 0.0003  | 0.0002    | 1.3  | 0.195 | -0.0002        | 0.0008   |
| 10-15 km        | 0-10 km         | 0.0003  | 0.0003    | 1.2  | 0.215 | -0.0002        | 0.0008   |
| 15-20 km        | 0-10 km         | 0.0012  | 0.0003    | 3.6  | 0.000 | 0.0006         | 0.0018   |
| 20-25 km        | 0-10 km         | 0.0021  | 0.0004    | 4.7  | 0.000 | 0.0012         | 0.0030   |
| 25-30 km        | 0-10 km         | 0.0021  | 0.0005    | 4.6  | 0.000 | 0.0012         | 0.0029   |
| 30-35 km        | 0-10 km         | 0.0021  | 0.0005    | 3.8  | 0.000 | 0.0010         | 0.0031   |
| 35-40 km        | 0-10 km         | 0.0022  | 0.0006    | 3.9  | 0.000 | 0.0011         | 0.0033   |
| 40-45 km        | 0-10 km         | 0.0022  | 0.0006    | 3.5  | 0.000 | 0.0010         | 0.0034   |
| 45-50 km        | 0-10 km         | 0.0027  | 0.0006    | 4.8  | 0.000 | 0.0016         | 0.0039   |
| >50 km          | 0-10 km         | 0.0021  | 0.0003    | 6.5  | 0.000 | 0.0015         | 0.0027   |
| 0-5 km          | 10-20 km        | -0.0003 | 0.0001    | -2.6 | 0.009 | -0.0005        | -0.0001  |
| 5-10 km         | 10-20 km        | -0.0003 | 0.0001    | -2.7 | 0.008 | -0.0006        | -0.0001  |
| 10-15 km        | 10-20 km        | -0.0001 | 0.0002    | -0.7 | 0.465 | -0.0004        | 0.0002   |
| 15-20 km        | 10-20 km        | -0.0002 | 0.0001    | -1.4 | 0.168 | -0.0005        | 0.0001   |
| 20-25 km        | 10-20 km        | 0.0000  | 0.0002    | 0.2  | 0.841 | -0.0003        | 0.0004   |
| 25-30 km        | 10-20 km        | 0.0005  | 0.0002    | 2.4  | 0.015 | 0.0001         | 0.0009   |
| 30-35 km        | 10-20 km        | 0.0006  | 0.0002    | 2.9  | 0.003 | 0.0002         | 0.0011   |
| 35-40 km        | 10-20 km        | 0.0010  | 0.0003    | 3.5  | 0.001 | 0.0004         | 0.0016   |
| 40-45 km        | 10-20 km        | 0.0011  | 0.0003    | 3.6  | 0.000 | 0.0005         | 0.0017   |
| 45-50 km        | 10-20 km        | 0.0004  | 0.0003    | 1.4  | 0.166 | -0.0002        | 0.0010   |
| >50 km          | 10-20 km        | 0.0006  | 0.0002    | 3.4  | 0.001 | 0.0003         | 0.0009   |
| 0-5 km          | 20-30 km        | -0.0004 | 0.0001    | -3.5 | 0.001 | -0.0006        | -0.0002  |
| 5-10 km         | 20-30 km        | -0.0003 | 0.0001    | -2.3 | 0.022 | -0.0005        | 0.0000   |
| 10-15 km        | 20-30 km        | -0.0004 | 0.0001    | -3.7 | 0.000 | -0.0007        | -0.0002  |
| 15-20 km        | 20-30 km        | -0.0003 | 0.0001    | -2.6 | 0.009 | -0.0006        | -0.0001  |
| 20-25 km        | 20-30 km        | -0.0005 | 0.0001    | -3.6 | 0.000 | -0.0007        | -0.0002  |
| 25-30 km        | 20-30 km        | -0.0004 | 0.0001    | -3.3 | 0.001 | -0.0007        | -0.0002  |
| 30-35 km        | 20-30 km        | 0.0002  | 0.0002    | 0.9  | 0.358 | -0.0002        | 0.0006   |
| 35-40 km        | 20-30 km        | -0.0003 | 0.0002    | -1.3 | 0.193 | -0.0006        | 0.0001   |
| 40-45 km        | 20-30 km        | 0.0000  | 0.0002    | 0.0  | 0.991 | -0.0004        | 0.0004   |
| 45-50 km        | 20-30 km        | -0.0001 | 0.0003    | -0.3 | 0.754 | -0.0006        | 0.0004   |
| >50 km          | 20-30 km        | -0.0001 | 0.0001    | -0.6 | 0.579 | -0.0003        | 0.0002   |
| 0-5 km          | 30-40 km        | -0.0004 | 0.0001    | -4.4 | 0.000 | -0.0006        | -0.0002  |
| 5-10 km         | 30-40 km        | -0.0004 | 0.0001    | -4.6 | 0.000 | -0.0006        | -0.0002  |
| 10-15 km        | 30-40 km        | -0.0005 | 0.0001    | -5.3 | 0.000 | -0.0006        | -0.0003  |
| 15-20 km        | 30-40 km        | -0.0005 | 0.0001    | -5.1 | 0.000 | -0.0007        | -0.0003  |
| 20-25 km        | 30-40 km        | -0.0002 | 0.0001    | -2.0 | 0.048 | -0.0005        | 0.0000   |
| 25-30 km        | 30-40 km        | -0.0006 | 0.0001    | -4.8 | 0.000 | -0.0009        | -0.0004  |
| 30-35 km        | 30-40 km        | -0.0006 | 0.0001    | -5.0 | 0.000 | -0.0008        | -0.0004  |
| 35-40 km        | 30-40 km        | -0.0007 | 0.0002    | -4.3 | 0.000 | -0.0009        | -0.0004  |
| 40-45 km        | 30-40 km        | -0.0007 | 0.0002    | -3.9 | 0.000 | -0.0010        | -0.0003  |
| 45-50 km        | 30-40 km        | -0.0008 | 0.0002    | -3.7 | 0.000 | -0.0013        | -0.0004  |
| >50 km          | 30-40 km        | 0.0000  | 0.0002    | -0.1 | 0.904 | -0.0004        | 0.0003   |

Table J.1: Night light by distance to the nearest mission station and homeland border:  
Mission station ID fixed effects (continued)

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 40-50 km        | -0.0005 | 0.0001    | -5.5 | 0.000 | -0.0006        | -0.0003  |
| 5-10 km         | 40-50 km        | -0.0004 | 0.0001    | -4.4 | 0.000 | -0.0006        | -0.0002  |
| 10-15 km        | 40-50 km        | -0.0005 | 0.0001    | -6.6 | 0.000 | -0.0007        | -0.0004  |
| 15-20 km        | 40-50 km        | -0.0005 | 0.0001    | -5.6 | 0.000 | -0.0006        | -0.0003  |
| 20-25 km        | 40-50 km        | -0.0006 | 0.0001    | -5.7 | 0.000 | -0.0008        | -0.0004  |
| 25-30 km        | 40-50 km        | -0.0005 | 0.0001    | -5.2 | 0.000 | -0.0007        | -0.0003  |
| 30-35 km        | 40-50 km        | -0.0007 | 0.0001    | -5.1 | 0.000 | -0.0010        | -0.0004  |
| 35-40 km        | 40-50 km        | -0.0008 | 0.0002    | -4.7 | 0.000 | -0.0011        | -0.0004  |
| 40-45 km        | 40-50 km        | -0.0010 | 0.0001    | -7.1 | 0.000 | -0.0013        | -0.0007  |
| 45-50 km        | 40-50 km        | -0.0004 | 0.0002    | -2.0 | 0.041 | -0.0008        | 0.0000   |
| >50 km          | 40-50 km        | -0.0003 | 0.0001    | -2.8 | 0.005 | -0.0005        | -0.0001  |
| 0-5 km          | 50-60 km        | -0.0004 | 0.0001    | -5.4 | 0.000 | -0.0005        | -0.0003  |
| 5-10 km         | 50-60 km        | -0.0004 | 0.0001    | -4.2 | 0.000 | -0.0005        | -0.0002  |
| 10-15 km        | 50-60 km        | -0.0005 | 0.0001    | -5.1 | 0.000 | -0.0006        | -0.0003  |
| 15-20 km        | 50-60 km        | -0.0003 | 0.0001    | -2.4 | 0.016 | -0.0005        | 0.0000   |
| 20-25 km        | 50-60 km        | -0.0004 | 0.0001    | -3.6 | 0.000 | -0.0006        | -0.0002  |
| 25-30 km        | 50-60 km        | -0.0006 | 0.0001    | -5.6 | 0.000 | -0.0008        | -0.0004  |
| 30-35 km        | 50-60 km        | -0.0006 | 0.0001    | -5.1 | 0.000 | -0.0009        | -0.0004  |
| 35-40 km        | 50-60 km        | -0.0005 | 0.0001    | -4.3 | 0.000 | -0.0008        | -0.0003  |
| 40-45 km        | 50-60 km        | -0.0006 | 0.0002    | -3.6 | 0.000 | -0.0010        | -0.0003  |
| 45-50 km        | 50-60 km        | -0.0006 | 0.0001    | -4.9 | 0.000 | -0.0008        | -0.0004  |
| >50 km          | 50-60 km        | -0.0002 | 0.0001    | -1.7 | 0.086 | -0.0004        | 0.0000   |
| 0-5 km          | 60-70 km        | -0.0004 | 0.0001    | -4.1 | 0.000 | -0.0006        | -0.0002  |
| 5-10 km         | 60-70 km        | -0.0003 | 0.0001    | -2.8 | 0.005 | -0.0005        | -0.0001  |
| 10-15 km        | 60-70 km        | -0.0005 | 0.0001    | -6.4 | 0.000 | -0.0007        | -0.0004  |
| 15-20 km        | 60-70 km        | -0.0004 | 0.0001    | -4.3 | 0.000 | -0.0006        | -0.0002  |
| 20-25 km        | 60-70 km        | -0.0006 | 0.0001    | -5.2 | 0.000 | -0.0008        | -0.0004  |
| 25-30 km        | 60-70 km        | -0.0005 | 0.0001    | -4.1 | 0.000 | -0.0008        | -0.0003  |
| 30-35 km        | 60-70 km        | -0.0001 | 0.0001    | -0.9 | 0.356 | -0.0004        | 0.0002   |
| 35-40 km        | 60-70 km        | -0.0006 | 0.0001    | -4.6 | 0.000 | -0.0009        | -0.0004  |
| 40-45 km        | 60-70 km        | -0.0006 | 0.0001    | -4.8 | 0.000 | -0.0008        | -0.0004  |
| 45-50 km        | 60-70 km        | -0.0009 | 0.0001    | -6.5 | 0.000 | -0.0011        | -0.0006  |
| >50 km          | 60-70 km        | -0.0003 | 0.0001    | -3.0 | 0.002 | -0.0005        | -0.0001  |
| 0-5 km          | 70-80 km        | -0.0002 | 0.0001    | -2.3 | 0.020 | -0.0004        | 0.0000   |
| 5-10 km         | 70-80 km        | -0.0004 | 0.0001    | -3.9 | 0.000 | -0.0006        | -0.0002  |
| 10-15 km        | 70-80 km        | -0.0004 | 0.0001    | -4.1 | 0.000 | -0.0007        | -0.0002  |
| 15-20 km        | 70-80 km        | -0.0006 | 0.0001    | -6.8 | 0.000 | -0.0008        | -0.0004  |
| 20-25 km        | 70-80 km        | -0.0004 | 0.0001    | -4.7 | 0.000 | -0.0006        | -0.0002  |
| 25-30 km        | 70-80 km        | -0.0003 | 0.0001    | -2.4 | 0.017 | -0.0006        | -0.0001  |
| 30-35 km        | 70-80 km        | -0.0005 | 0.0001    | -5.1 | 0.000 | -0.0007        | -0.0003  |
| 35-40 km        | 70-80 km        | -0.0003 | 0.0001    | -2.0 | 0.043 | -0.0005        | 0.0000   |
| 40-45 km        | 70-80 km        | -0.0002 | 0.0002    | -1.0 | 0.308 | -0.0005        | 0.0002   |
| 45-50 km        | 70-80 km        | -0.0003 | 0.0002    | -1.4 | 0.169 | -0.0007        | 0.0001   |
| >50 km          | 70-80 km        | -0.0003 | 0.0001    | -2.6 | 0.008 | -0.0004        | -0.0001  |

Table J.1: Night light by distance to the nearest mission station and homeland border:  
Mission station ID fixed effects (continued)

| Homeland border         | Mission station | Coef.   | Std. Err. | t     | P>t   | 95% Confidence | Interval |
|-------------------------|-----------------|---------|-----------|-------|-------|----------------|----------|
| 0-5 km                  | 80-90 km        | -0.0004 | 0.0001    | -4.4  | 0.000 | -0.0006        | -0.0002  |
| 5-10 km                 | 80-90 km        | -0.0004 | 0.0001    | -5.7  | 0.000 | -0.0006        | -0.0003  |
| 10-15 km                | 80-90 km        | -0.0003 | 0.0001    | -2.9  | 0.003 | -0.0004        | -0.0001  |
| 15-20 km                | 80-90 km        | -0.0004 | 0.0001    | -4.1  | 0.000 | -0.0006        | -0.0002  |
| 20-25 km                | 80-90 km        | -0.0004 | 0.0001    | -4.4  | 0.000 | -0.0006        | -0.0002  |
| 25-30 km                | 80-90 km        | -0.0003 | 0.0001    | -3.9  | 0.000 | -0.0005        | -0.0002  |
| 30-35 km                | 80-90 km        | -0.0002 | 0.0001    | -2.6  | 0.011 | -0.0004        | -0.0001  |
| 35-40 km                | 80-90 km        | -0.0002 | 0.0001    | -1.7  | 0.095 | -0.0005        | 0.0000   |
| 40-45 km                | 80-90 km        | -0.0004 | 0.0002    | -2.5  | 0.011 | -0.0007        | -0.0001  |
| 45-50 km                | 80-90 km        | -0.0001 | 0.0002    | -0.3  | 0.802 | -0.0005        | 0.0004   |
| >50 km                  | 80-90 km        | -0.0003 | 0.0001    | -3.7  | 0.000 | -0.0005        | -0.0002  |
| 0-5 km                  | 90-100 km       | -0.0004 | 0.0001    | -4.3  | 0.000 | -0.0006        | -0.0002  |
| 5-10 km                 | 90-100 km       | -0.0005 | 0.0001    | -6.7  | 0.000 | -0.0007        | -0.0004  |
| 10-15 km                | 90-100 km       | -0.0005 | 0.0001    | -4.9  | 0.000 | -0.0006        | -0.0003  |
| 15-20 km                | 90-100 km       | -0.0004 | 0.0001    | -4.5  | 0.000 | -0.0005        | -0.0002  |
| 20-25 km                | 90-100 km       | -0.0002 | 0.0001    | -1.9  | 0.057 | -0.0003        | 0.0000   |
| 25-30 km                | 90-100 km       | -0.0003 | 0.0001    | -3.8  | 0.000 | -0.0005        | -0.0002  |
| 30-35 km                | 90-100 km       | -0.0002 | 0.0001    | -2.5  | 0.011 | -0.0004        | -0.0001  |
| 35-40 km                | 90-100 km       | -0.0003 | 0.0002    | -2.0  | 0.049 | -0.0006        | 0.0000   |
| 40-45 km                | 90-100 km       | -0.0001 | 0.0002    | -0.7  | 0.464 | -0.0005        | 0.0002   |
| 45-50 km                | 90-100 km       | -0.0006 | 0.0001    | -4.4  | 0.000 | -0.0009        | -0.0003  |
| >50 km                  | 90-100 km       | -0.0002 | 0.0001    | -1.8  | 0.068 | -0.0004        | 0.0000   |
| 0-5 km                  | >100 km         | -0.0003 | 0.0000    | -10.4 | 0.000 | -0.0004        | -0.0002  |
| 5-10 km                 | >100 km         | -0.0003 | 0.0000    | -10.8 | 0.000 | -0.0004        | -0.0003  |
| 10-15 km                | >100 km         | -0.0003 | 0.0000    | -8.5  | 0.000 | -0.0003        | -0.0002  |
| 15-20 km                | >100 km         | -0.0003 | 0.0000    | -9.1  | 0.000 | -0.0004        | -0.0002  |
| 20-25 km                | >100 km         | -0.0002 | 0.0000    | -5.1  | 0.000 | -0.0002        | -0.0001  |
| 25-30 km                | >100 km         | -0.0002 | 0.0000    | -5.9  | 0.000 | -0.0003        | -0.0001  |
| 30-35 km                | >100 km         | -0.0002 | 0.0000    | -4.6  | 0.000 | -0.0002        | -0.0001  |
| 35-40 km                | >100 km         | -0.0001 | 0.0000    | -2.8  | 0.005 | -0.0002        | 0.0000   |
| 40-45 km                | >100 km         | 0.0000  | 0.0001    | 0.1   | 0.897 | -0.0001        | 0.0002   |
| 45-50 km                | >100 km         | -0.0001 | 0.0000    | -1.9  | 0.057 | -0.0002        | 0.0000   |
| >50 km                  | >100 km         | 0.0000  | (omitted) |       |       |                |          |
| Controls                |                 |         |           |       |       |                | Yes      |
| Coloniser fixed effects |                 |         |           |       |       |                | Yes      |
| Country fixed effects   |                 |         |           |       |       |                | Yes      |
| Mission fixed effects   |                 |         |           |       |       |                | Yes      |
| Std. err.               |                 |         |           |       |       |                | Robust   |
| R2                      |                 |         |           |       |       |                | 0.5878   |
| N                       |                 |         |           |       |       |                | 257,224  |

*Notes:* The regression model, displayed in Equation 2, controls for latitude, ruggedness, elevation, rainfall, temperature, land suitability for agriculture, malaria, tsetse flies, population density, uninhabited grid cells, major cities, islands, Sub-Saharan Africa, as well as the geodesic distances to coasts, rivers, railways, mines, national borders, historical explorer routes, precolonial cities, Muslim seats, Protestant printing presses, and postcolonial World Bank aid projects. Gaps between the first- and second-nearest mission stations and homeland borders are also accounted for. All variables are log-linearised except binaries.

Table J.2: Night light by distance to the nearest mission station and homeland border:  
Border ID fixed effects

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 0-10 km         | 0.0000  | 0.0003    | -0.1 | 0.914 | -0.0006        | 0.0005   |
| 5-10 km         | 0-10 km         | 0.0001  | 0.0002    | 0.3  | 0.789 | -0.0004        | 0.0006   |
| 10-15 km        | 0-10 km         | 0.0001  | 0.0003    | 0.3  | 0.752 | -0.0004        | 0.0006   |
| 15-20 km        | 0-10 km         | 0.0009  | 0.0003    | 2.8  | 0.006 | 0.0003         | 0.0015   |
| 20-25 km        | 0-10 km         | 0.0016  | 0.0004    | 3.9  | 0.000 | 0.0008         | 0.0025   |
| 25-30 km        | 0-10 km         | 0.0015  | 0.0004    | 3.7  | 0.000 | 0.0007         | 0.0023   |
| 30-35 km        | 0-10 km         | 0.0014  | 0.0005    | 2.8  | 0.005 | 0.0004         | 0.0024   |
| 35-40 km        | 0-10 km         | 0.0015  | 0.0005    | 2.9  | 0.004 | 0.0005         | 0.0024   |
| 40-45 km        | 0-10 km         | 0.0015  | 0.0005    | 2.8  | 0.005 | 0.0005         | 0.0026   |
| 45-50 km        | 0-10 km         | 0.0021  | 0.0005    | 4.0  | 0.000 | 0.0011         | 0.0031   |
| >50 km          | 0-10 km         | 0.0015  | 0.0003    | 4.8  | 0.000 | 0.0009         | 0.0021   |
| 0-5 km          | 10-20 km        | -0.0004 | 0.0001    | -3.6 | 0.000 | -0.0007        | -0.0002  |
| 5-10 km         | 10-20 km        | -0.0004 | 0.0001    | -3.3 | 0.001 | -0.0007        | -0.0002  |
| 10-15 km        | 10-20 km        | -0.0004 | 0.0002    | -2.2 | 0.027 | -0.0007        | 0.0000   |
| 15-20 km        | 10-20 km        | -0.0004 | 0.0001    | -2.6 | 0.010 | -0.0006        | -0.0001  |
| 20-25 km        | 10-20 km        | -0.0002 | 0.0002    | -1.1 | 0.282 | -0.0006        | 0.0002   |
| 25-30 km        | 10-20 km        | 0.0001  | 0.0002    | 0.6  | 0.519 | -0.0003        | 0.0005   |
| 30-35 km        | 10-20 km        | 0.0003  | 0.0002    | 1.2  | 0.228 | -0.0002        | 0.0007   |
| 35-40 km        | 10-20 km        | 0.0005  | 0.0003    | 1.8  | 0.072 | 0.0000         | 0.0010   |
| 40-45 km        | 10-20 km        | 0.0006  | 0.0003    | 2.2  | 0.029 | 0.0001         | 0.0012   |
| 45-50 km        | 10-20 km        | 0.0000  | 0.0003    | -0.2 | 0.862 | -0.0006        | 0.0005   |
| >50 km          | 10-20 km        | 0.0001  | 0.0002    | 0.7  | 0.485 | -0.0002        | 0.0005   |
| 0-5 km          | 20-30 km        | -0.0005 | 0.0001    | -4.1 | 0.000 | -0.0007        | -0.0003  |
| 5-10 km         | 20-30 km        | -0.0004 | 0.0001    | -3.2 | 0.002 | -0.0006        | -0.0001  |
| 10-15 km        | 20-30 km        | -0.0006 | 0.0001    | -4.8 | 0.000 | -0.0008        | -0.0003  |
| 15-20 km        | 20-30 km        | -0.0005 | 0.0001    | -3.5 | 0.001 | -0.0007        | -0.0002  |
| 20-25 km        | 20-30 km        | -0.0007 | 0.0001    | -4.9 | 0.000 | -0.0009        | -0.0004  |
| 25-30 km        | 20-30 km        | -0.0006 | 0.0001    | -4.3 | 0.000 | -0.0008        | -0.0003  |
| 30-35 km        | 20-30 km        | -0.0001 | 0.0002    | -0.3 | 0.791 | -0.0004        | 0.0003   |
| 35-40 km        | 20-30 km        | -0.0005 | 0.0002    | -2.5 | 0.013 | -0.0008        | -0.0001  |
| 40-45 km        | 20-30 km        | -0.0003 | 0.0002    | -1.6 | 0.102 | -0.0007        | 0.0001   |
| 45-50 km        | 20-30 km        | -0.0006 | 0.0003    | -2.1 | 0.036 | -0.0011        | 0.0000   |
| >50 km          | 20-30 km        | -0.0005 | 0.0001    | -3.6 | 0.000 | -0.0007        | -0.0002  |
| 0-5 km          | 30-40 km        | -0.0005 | 0.0001    | -4.6 | 0.000 | -0.0006        | -0.0003  |
| 5-10 km         | 30-40 km        | -0.0005 | 0.0001    | -5.3 | 0.000 | -0.0007        | -0.0003  |
| 10-15 km        | 30-40 km        | -0.0005 | 0.0001    | -5.2 | 0.000 | -0.0007        | -0.0003  |
| 15-20 km        | 30-40 km        | -0.0007 | 0.0001    | -6.0 | 0.000 | -0.0009        | -0.0004  |
| 20-25 km        | 30-40 km        | -0.0003 | 0.0001    | -2.7 | 0.008 | -0.0005        | -0.0001  |
| 25-30 km        | 30-40 km        | -0.0007 | 0.0001    | -5.7 | 0.000 | -0.0010        | -0.0005  |
| 30-35 km        | 30-40 km        | -0.0007 | 0.0001    | -6.2 | 0.000 | -0.0010        | -0.0005  |
| 35-40 km        | 30-40 km        | -0.0009 | 0.0002    | -6.0 | 0.000 | -0.0012        | -0.0006  |
| 40-45 km        | 30-40 km        | -0.0009 | 0.0002    | -5.3 | 0.000 | -0.0013        | -0.0006  |
| 45-50 km        | 30-40 km        | -0.0011 | 0.0002    | -4.7 | 0.000 | -0.0016        | -0.0006  |
| >50 km          | 30-40 km        | -0.0003 | 0.0002    | -1.9 | 0.062 | -0.0007        | 0.0000   |

Table J.2: Night light by distance to the nearest mission station and homeland border:  
Border ID fixed effects (continued)

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 40-50 km        | -0.0005 | 0.0001    | -5.0 | 0.000 | -0.0007        | -0.0003  |
| 5-10 km         | 40-50 km        | -0.0004 | 0.0001    | -4.2 | 0.000 | -0.0006        | -0.0002  |
| 10-15 km        | 40-50 km        | -0.0006 | 0.0001    | -6.4 | 0.000 | -0.0008        | -0.0004  |
| 15-20 km        | 40-50 km        | -0.0007 | 0.0001    | -6.1 | 0.000 | -0.0009        | -0.0005  |
| 20-25 km        | 40-50 km        | -0.0008 | 0.0001    | -6.2 | 0.000 | -0.0011        | -0.0006  |
| 25-30 km        | 40-50 km        | -0.0008 | 0.0001    | -6.6 | 0.000 | -0.0010        | -0.0006  |
| 30-35 km        | 40-50 km        | -0.0008 | 0.0002    | -5.6 | 0.000 | -0.0011        | -0.0005  |
| 35-40 km        | 40-50 km        | -0.0008 | 0.0002    | -5.0 | 0.000 | -0.0011        | -0.0005  |
| 40-45 km        | 40-50 km        | -0.0011 | 0.0001    | -8.0 | 0.000 | -0.0014        | -0.0009  |
| 45-50 km        | 40-50 km        | -0.0007 | 0.0002    | -3.0 | 0.002 | -0.0011        | -0.0002  |
| >50 km          | 40-50 km        | -0.0006 | 0.0001    | -5.2 | 0.000 | -0.0008        | -0.0004  |
| 0-5 km          | 50-60 km        | -0.0004 | 0.0001    | -4.6 | 0.000 | -0.0006        | -0.0002  |
| 5-10 km         | 50-60 km        | -0.0005 | 0.0001    | -4.7 | 0.000 | -0.0006        | -0.0003  |
| 10-15 km        | 50-60 km        | -0.0005 | 0.0001    | -4.7 | 0.000 | -0.0007        | -0.0003  |
| 15-20 km        | 50-60 km        | -0.0005 | 0.0001    | -4.1 | 0.000 | -0.0007        | -0.0002  |
| 20-25 km        | 50-60 km        | -0.0005 | 0.0001    | -4.2 | 0.000 | -0.0007        | -0.0003  |
| 25-30 km        | 50-60 km        | -0.0006 | 0.0001    | -5.0 | 0.000 | -0.0009        | -0.0004  |
| 30-35 km        | 50-60 km        | -0.0008 | 0.0001    | -5.8 | 0.000 | -0.0011        | -0.0006  |
| 35-40 km        | 50-60 km        | -0.0008 | 0.0001    | -5.3 | 0.000 | -0.0011        | -0.0005  |
| 40-45 km        | 50-60 km        | -0.0009 | 0.0002    | -4.8 | 0.000 | -0.0013        | -0.0005  |
| 45-50 km        | 50-60 km        | -0.0009 | 0.0002    | -5.1 | 0.000 | -0.0013        | -0.0006  |
| >50 km          | 50-60 km        | -0.0004 | 0.0001    | -4.2 | 0.000 | -0.0006        | -0.0002  |
| 0-5 km          | 60-70 km        | -0.0004 | 0.0001    | -4.2 | 0.000 | -0.0006        | -0.0002  |
| 5-10 km         | 60-70 km        | -0.0004 | 0.0001    | -3.7 | 0.000 | -0.0006        | -0.0002  |
| 10-15 km        | 60-70 km        | -0.0006 | 0.0001    | -5.8 | 0.000 | -0.0008        | -0.0004  |
| 15-20 km        | 60-70 km        | -0.0004 | 0.0001    | -4.2 | 0.000 | -0.0006        | -0.0002  |
| 20-25 km        | 60-70 km        | -0.0006 | 0.0001    | -5.5 | 0.000 | -0.0008        | -0.0004  |
| 25-30 km        | 60-70 km        | -0.0007 | 0.0001    | -5.6 | 0.000 | -0.0009        | -0.0004  |
| 30-35 km        | 60-70 km        | -0.0001 | 0.0002    | -0.8 | 0.404 | -0.0005        | 0.0002   |
| 35-40 km        | 60-70 km        | -0.0009 | 0.0002    | -5.4 | 0.000 | -0.0012        | -0.0005  |
| 40-45 km        | 60-70 km        | -0.0008 | 0.0002    | -5.0 | 0.000 | -0.0011        | -0.0005  |
| 45-50 km        | 60-70 km        | -0.0010 | 0.0002    | -5.8 | 0.000 | -0.0014        | -0.0007  |
| >50 km          | 60-70 km        | -0.0005 | 0.0001    | -5.4 | 0.000 | -0.0007        | -0.0003  |
| 0-5 km          | 70-80 km        | -0.0003 | 0.0001    | -3.1 | 0.002 | -0.0005        | -0.0001  |
| 5-10 km         | 70-80 km        | -0.0003 | 0.0001    | -2.6 | 0.009 | -0.0005        | -0.0001  |
| 10-15 km        | 70-80 km        | -0.0004 | 0.0001    | -4.1 | 0.000 | -0.0006        | -0.0002  |
| 15-20 km        | 70-80 km        | -0.0006 | 0.0001    | -6.2 | 0.000 | -0.0007        | -0.0004  |
| 20-25 km        | 70-80 km        | -0.0004 | 0.0001    | -4.2 | 0.000 | -0.0006        | -0.0002  |
| 25-30 km        | 70-80 km        | -0.0004 | 0.0001    | -2.7 | 0.006 | -0.0007        | -0.0001  |
| 30-35 km        | 70-80 km        | -0.0005 | 0.0001    | -4.1 | 0.000 | -0.0007        | -0.0002  |
| 35-40 km        | 70-80 km        | -0.0004 | 0.0001    | -2.8 | 0.005 | -0.0007        | -0.0001  |
| 40-45 km        | 70-80 km        | -0.0003 | 0.0002    | -1.4 | 0.158 | -0.0006        | 0.0001   |
| 45-50 km        | 70-80 km        | -0.0004 | 0.0002    | -1.7 | 0.083 | -0.0008        | 0.0001   |
| >50 km          | 70-80 km        | -0.0005 | 0.0001    | -4.5 | 0.000 | -0.0007        | -0.0003  |

Table J.2: Night light by distance to the nearest mission station and homeland border:  
Border ID fixed effects (continued)

| Homeland border         | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-------------------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km                  | 80-90 km        | -0.0002 | 0.0001    | -2.3 | 0.021 | -0.0004        | 0.0000   |
| 5-10 km                 | 80-90 km        | -0.0003 | 0.0001    | -3.4 | 0.001 | -0.0005        | -0.0001  |
| 10-15 km                | 80-90 km        | -0.0004 | 0.0001    | -3.7 | 0.000 | -0.0006        | -0.0002  |
| 15-20 km                | 80-90 km        | -0.0004 | 0.0001    | -3.7 | 0.000 | -0.0006        | -0.0002  |
| 20-25 km                | 80-90 km        | -0.0004 | 0.0001    | -4.3 | 0.000 | -0.0006        | -0.0002  |
| 25-30 km                | 80-90 km        | -0.0004 | 0.0001    | -3.6 | 0.000 | -0.0005        | -0.0002  |
| 30-35 km                | 80-90 km        | -0.0002 | 0.0001    | -2.0 | 0.042 | -0.0004        | 0.0000   |
| 35-40 km                | 80-90 km        | -0.0004 | 0.0002    | -2.8 | 0.006 | -0.0007        | -0.0001  |
| 40-45 km                | 80-90 km        | -0.0006 | 0.0002    | -3.4 | 0.001 | -0.0009        | -0.0002  |
| 45-50 km                | 80-90 km        | -0.0001 | 0.0002    | -0.4 | 0.710 | -0.0005        | 0.0004   |
| >50 km                  | 80-90 km        | -0.0004 | 0.0001    | -4.2 | 0.000 | -0.0006        | -0.0002  |
| 0-5 km                  | 90-100 km       | -0.0003 | 0.0001    | -3.7 | 0.000 | -0.0005        | -0.0002  |
| 5-10 km                 | 90-100 km       | -0.0004 | 0.0001    | -4.9 | 0.000 | -0.0006        | -0.0003  |
| 10-15 km                | 90-100 km       | -0.0003 | 0.0001    | -2.8 | 0.005 | -0.0004        | -0.0001  |
| 15-20 km                | 90-100 km       | -0.0003 | 0.0001    | -3.5 | 0.001 | -0.0005        | -0.0001  |
| 20-25 km                | 90-100 km       | -0.0002 | 0.0001    | -2.0 | 0.048 | -0.0004        | 0.0000   |
| 25-30 km                | 90-100 km       | -0.0005 | 0.0001    | -3.8 | 0.000 | -0.0007        | -0.0002  |
| 30-35 km                | 90-100 km       | -0.0003 | 0.0001    | -3.0 | 0.003 | -0.0005        | -0.0001  |
| 35-40 km                | 90-100 km       | -0.0004 | 0.0002    | -2.4 | 0.015 | -0.0008        | -0.0001  |
| 40-45 km                | 90-100 km       | -0.0001 | 0.0002    | -0.5 | 0.590 | -0.0005        | 0.0003   |
| 45-50 km                | 90-100 km       | -0.0007 | 0.0002    | -3.8 | 0.000 | -0.0010        | -0.0003  |
| >50 km                  | 90-100 km       | -0.0003 | 0.0001    | -2.5 | 0.012 | -0.0005        | -0.0001  |
| 0-5 km                  | >100 km         | -0.0002 | 0.0000    | -6.7 | 0.000 | -0.0003        | -0.0001  |
| 5-10 km                 | >100 km         | -0.0002 | 0.0000    | -8.0 | 0.000 | -0.0003        | -0.0002  |
| 10-15 km                | >100 km         | -0.0002 | 0.0000    | -6.6 | 0.000 | -0.0003        | -0.0001  |
| 15-20 km                | >100 km         | -0.0002 | 0.0000    | -6.5 | 0.000 | -0.0003        | -0.0001  |
| 20-25 km                | >100 km         | -0.0001 | 0.0000    | -3.9 | 0.000 | -0.0002        | -0.0001  |
| 25-30 km                | >100 km         | -0.0002 | 0.0000    | -4.3 | 0.000 | -0.0002        | -0.0001  |
| 30-35 km                | >100 km         | -0.0001 | 0.0000    | -3.6 | 0.000 | -0.0002        | -0.0001  |
| 35-40 km                | >100 km         | -0.0001 | 0.0000    | -1.7 | 0.099 | -0.0001        | 0.0000   |
| 40-45 km                | >100 km         | 0.0000  | 0.0001    | 0.2  | 0.808 | -0.0001        | 0.0002   |
| 45-50 km                | >100 km         | -0.0001 | 0.0000    | -1.2 | 0.229 | -0.0001        | 0.0000   |
| >50 km                  | >100 km         | 0.0000  | (omitted) |      |       |                |          |
| Controls                |                 |         |           |      |       |                | Yes      |
| Coloniser fixed effects |                 |         |           |      |       |                | Yes      |
| Country fixed effects   |                 |         |           |      |       |                | Yes      |
| Std. err.               |                 |         |           |      |       |                | Robust   |
| $R^2$                   |                 |         |           |      |       |                | 0.4724   |
| N                       |                 |         |           |      |       |                | 257,224  |

*Notes:* The regression model, displayed in Equation 2, controls for latitude, ruggedness, elevation, rainfall, temperature, land suitability for agriculture, malaria, tsetse flies, population density, uninhabited grid cells, major cities, islands, Sub-Saharan Africa, as well as the geodesic distances to coasts, rivers, railways, mines, national borders, historical explorer routes, precolonial cities, Muslim seats, Protestant printing presses, and postcolonial World Bank aid projects. Gaps between the first- and second-nearest mission stations and homeland borders are also accounted for. All variables are log-linearised except binaries.

Table J.3: Night light by distance to the nearest mission station and homeland border:  
Mission station and homeland border ID fixed effects

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 0-10 km         | 0.0000  | 0.0003    | -0.1 | 0.914 | -0.0006        | 0.0005   |
| 5-10 km         | 0-10 km         | 0.0001  | 0.0002    | 0.3  | 0.789 | -0.0004        | 0.0006   |
| 10-15 km        | 0-10 km         | 0.0001  | 0.0003    | 0.3  | 0.752 | -0.0004        | 0.0006   |
| 15-20 km        | 0-10 km         | 0.0009  | 0.0003    | 2.8  | 0.006 | 0.0003         | 0.0015   |
| 20-25 km        | 0-10 km         | 0.0016  | 0.0004    | 3.9  | 0.000 | 0.0008         | 0.0025   |
| 25-30 km        | 0-10 km         | 0.0015  | 0.0004    | 3.7  | 0.000 | 0.0007         | 0.0023   |
| 30-35 km        | 0-10 km         | 0.0014  | 0.0005    | 2.8  | 0.005 | 0.0004         | 0.0024   |
| 35-40 km        | 0-10 km         | 0.0015  | 0.0005    | 2.9  | 0.004 | 0.0005         | 0.0024   |
| 40-45 km        | 0-10 km         | 0.0015  | 0.0005    | 2.8  | 0.005 | 0.0005         | 0.0026   |
| 45-50 km        | 0-10 km         | 0.0021  | 0.0005    | 4.0  | 0.000 | 0.0011         | 0.0031   |
| >50 km          | 0-10 km         | 0.0015  | 0.0003    | 4.8  | 0.000 | 0.0009         | 0.0021   |
| 0-5 km          | 10-20 km        | -0.0004 | 0.0001    | -3.6 | 0.000 | -0.0007        | -0.0002  |
| 5-10 km         | 10-20 km        | -0.0004 | 0.0001    | -3.3 | 0.001 | -0.0007        | -0.0002  |
| 10-15 km        | 10-20 km        | -0.0004 | 0.0002    | -2.2 | 0.027 | -0.0007        | 0.0000   |
| 15-20 km        | 10-20 km        | -0.0004 | 0.0001    | -2.6 | 0.010 | -0.0006        | -0.0001  |
| 20-25 km        | 10-20 km        | -0.0002 | 0.0002    | -1.1 | 0.282 | -0.0006        | 0.0002   |
| 25-30 km        | 10-20 km        | 0.0001  | 0.0002    | 0.6  | 0.519 | -0.0003        | 0.0005   |
| 30-35 km        | 10-20 km        | 0.0003  | 0.0002    | 1.2  | 0.228 | -0.0002        | 0.0007   |
| 35-40 km        | 10-20 km        | 0.0005  | 0.0003    | 1.8  | 0.072 | 0.0000         | 0.0010   |
| 40-45 km        | 10-20 km        | 0.0006  | 0.0003    | 2.2  | 0.029 | 0.0001         | 0.0012   |
| 45-50 km        | 10-20 km        | 0.0000  | 0.0003    | -0.2 | 0.862 | -0.0006        | 0.0005   |
| >50 km          | 10-20 km        | 0.0001  | 0.0002    | 0.7  | 0.485 | -0.0002        | 0.0005   |
| 0-5 km          | 20-30 km        | -0.0005 | 0.0001    | -4.1 | 0.000 | -0.0007        | -0.0003  |
| 5-10 km         | 20-30 km        | -0.0004 | 0.0001    | -3.2 | 0.002 | -0.0006        | -0.0001  |
| 10-15 km        | 20-30 km        | -0.0006 | 0.0001    | -4.8 | 0.000 | -0.0008        | -0.0003  |
| 15-20 km        | 20-30 km        | -0.0005 | 0.0001    | -3.5 | 0.001 | -0.0007        | -0.0002  |
| 20-25 km        | 20-30 km        | -0.0007 | 0.0001    | -4.9 | 0.000 | -0.0009        | -0.0004  |
| 25-30 km        | 20-30 km        | -0.0006 | 0.0001    | -4.3 | 0.000 | -0.0008        | -0.0003  |
| 30-35 km        | 20-30 km        | -0.0001 | 0.0002    | -0.3 | 0.791 | -0.0004        | 0.0003   |
| 35-40 km        | 20-30 km        | -0.0005 | 0.0002    | -2.5 | 0.013 | -0.0008        | -0.0001  |
| 40-45 km        | 20-30 km        | -0.0003 | 0.0002    | -1.6 | 0.102 | -0.0007        | 0.0001   |
| 45-50 km        | 20-30 km        | -0.0006 | 0.0003    | -2.1 | 0.036 | -0.0011        | 0.0000   |
| >50 km          | 20-30 km        | -0.0005 | 0.0001    | -3.6 | 0.000 | -0.0007        | -0.0002  |
| 0-5 km          | 30-40 km        | -0.0005 | 0.0001    | -4.6 | 0.000 | -0.0006        | -0.0003  |
| 5-10 km         | 30-40 km        | -0.0005 | 0.0001    | -5.3 | 0.000 | -0.0007        | -0.0003  |
| 10-15 km        | 30-40 km        | -0.0005 | 0.0001    | -5.2 | 0.000 | -0.0007        | -0.0003  |
| 15-20 km        | 30-40 km        | -0.0007 | 0.0001    | -6.0 | 0.000 | -0.0009        | -0.0004  |
| 20-25 km        | 30-40 km        | -0.0003 | 0.0001    | -2.7 | 0.008 | -0.0005        | -0.0001  |
| 25-30 km        | 30-40 km        | -0.0007 | 0.0001    | -5.7 | 0.000 | -0.0010        | -0.0005  |
| 30-35 km        | 30-40 km        | -0.0007 | 0.0001    | -6.2 | 0.000 | -0.0010        | -0.0005  |
| 35-40 km        | 30-40 km        | -0.0009 | 0.0002    | -6.0 | 0.000 | -0.0012        | -0.0006  |
| 40-45 km        | 30-40 km        | -0.0009 | 0.0002    | -5.3 | 0.000 | -0.0013        | -0.0006  |
| 45-50 km        | 30-40 km        | -0.0011 | 0.0002    | -4.7 | 0.000 | -0.0016        | -0.0006  |
| >50 km          | 30-40 km        | -0.0003 | 0.0002    | -1.9 | 0.062 | -0.0007        | 0.0000   |

Table J.3: Night light by distance to the nearest mission station and homeland border:  
Mission station and homeland border ID fixed effects (continued)

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 40-50 km        | -0.0005 | 0.0001    | -5.3 | 0.000 | -0.0007        | -0.0003  |
| 5-10 km         | 40-50 km        | -0.0005 | 0.0001    | -5.0 | 0.000 | -0.0006        | -0.0003  |
| 10-15 km        | 40-50 km        | -0.0006 | 0.0001    | -6.5 | 0.000 | -0.0007        | -0.0004  |
| 15-20 km        | 40-50 km        | -0.0006 | 0.0001    | -5.9 | 0.000 | -0.0008        | -0.0004  |
| 20-25 km        | 40-50 km        | -0.0006 | 0.0001    | -6.0 | 0.000 | -0.0008        | -0.0004  |
| 25-30 km        | 40-50 km        | -0.0006 | 0.0001    | -6.5 | 0.000 | -0.0008        | -0.0004  |
| 30-35 km        | 40-50 km        | -0.0008 | 0.0001    | -5.9 | 0.000 | -0.0011        | -0.0005  |
| 35-40 km        | 40-50 km        | -0.0008 | 0.0002    | -5.1 | 0.000 | -0.0011        | -0.0005  |
| 40-45 km        | 40-50 km        | -0.0011 | 0.0001    | -8.0 | 0.000 | -0.0013        | -0.0008  |
| 45-50 km        | 40-50 km        | -0.0006 | 0.0002    | -2.6 | 0.008 | -0.0010        | -0.0001  |
| >50 km          | 40-50 km        | -0.0006 | 0.0001    | -4.9 | 0.000 | -0.0008        | -0.0003  |
| 0-5 km          | 50-60 km        | -0.0004 | 0.0001    | -5.4 | 0.000 | -0.0006        | -0.0003  |
| 5-10 km         | 50-60 km        | -0.0004 | 0.0001    | -4.7 | 0.000 | -0.0006        | -0.0002  |
| 10-15 km        | 50-60 km        | -0.0005 | 0.0001    | -4.9 | 0.000 | -0.0007        | -0.0003  |
| 15-20 km        | 50-60 km        | -0.0004 | 0.0001    | -3.3 | 0.001 | -0.0006        | -0.0001  |
| 20-25 km        | 50-60 km        | -0.0005 | 0.0001    | -4.4 | 0.000 | -0.0007        | -0.0003  |
| 25-30 km        | 50-60 km        | -0.0006 | 0.0001    | -5.7 | 0.000 | -0.0008        | -0.0004  |
| 30-35 km        | 50-60 km        | -0.0006 | 0.0001    | -4.9 | 0.000 | -0.0009        | -0.0004  |
| 35-40 km        | 50-60 km        | -0.0005 | 0.0001    | -4.4 | 0.000 | -0.0007        | -0.0003  |
| 40-45 km        | 50-60 km        | -0.0007 | 0.0002    | -4.3 | 0.000 | -0.0011        | -0.0004  |
| 45-50 km        | 50-60 km        | -0.0007 | 0.0001    | -5.2 | 0.000 | -0.0010        | -0.0004  |
| >50 km          | 50-60 km        | -0.0004 | 0.0001    | -3.5 | 0.000 | -0.0005        | -0.0002  |
| 0-5 km          | 60-70 km        | -0.0004 | 0.0001    | -4.4 | 0.000 | -0.0006        | -0.0002  |
| 5-10 km         | 60-70 km        | -0.0004 | 0.0001    | -3.6 | 0.000 | -0.0006        | -0.0002  |
| 10-15 km        | 60-70 km        | -0.0006 | 0.0001    | -6.6 | 0.000 | -0.0008        | -0.0004  |
| 15-20 km        | 60-70 km        | -0.0004 | 0.0001    | -4.7 | 0.000 | -0.0006        | -0.0003  |
| 20-25 km        | 60-70 km        | -0.0006 | 0.0001    | -5.2 | 0.000 | -0.0008        | -0.0004  |
| 25-30 km        | 60-70 km        | -0.0006 | 0.0001    | -4.8 | 0.000 | -0.0008        | -0.0003  |
| 30-35 km        | 60-70 km        | -0.0002 | 0.0001    | -1.2 | 0.240 | -0.0005        | 0.0001   |
| 35-40 km        | 60-70 km        | -0.0007 | 0.0001    | -4.6 | 0.000 | -0.0010        | -0.0004  |
| 40-45 km        | 60-70 km        | -0.0006 | 0.0001    | -4.9 | 0.000 | -0.0009        | -0.0004  |
| 45-50 km        | 60-70 km        | -0.0008 | 0.0001    | -6.1 | 0.000 | -0.0010        | -0.0005  |
| >50 km          | 60-70 km        | -0.0004 | 0.0001    | -4.1 | 0.000 | -0.0006        | -0.0002  |
| 0-5 km          | 70-80 km        | -0.0003 | 0.0001    | -3.3 | 0.001 | -0.0005        | -0.0001  |
| 5-10 km         | 70-80 km        | -0.0003 | 0.0001    | -3.3 | 0.001 | -0.0005        | -0.0001  |
| 10-15 km        | 70-80 km        | -0.0004 | 0.0001    | -4.4 | 0.000 | -0.0006        | -0.0002  |
| 15-20 km        | 70-80 km        | -0.0006 | 0.0001    | -6.5 | 0.000 | -0.0007        | -0.0004  |
| 20-25 km        | 70-80 km        | -0.0004 | 0.0001    | -5.1 | 0.000 | -0.0006        | -0.0003  |
| 25-30 km        | 70-80 km        | -0.0003 | 0.0001    | -2.5 | 0.011 | -0.0006        | -0.0001  |
| 30-35 km        | 70-80 km        | -0.0005 | 0.0001    | -4.6 | 0.000 | -0.0007        | -0.0003  |
| 35-40 km        | 70-80 km        | -0.0003 | 0.0001    | -2.5 | 0.013 | -0.0006        | -0.0001  |
| 40-45 km        | 70-80 km        | -0.0002 | 0.0002    | -1.2 | 0.232 | -0.0005        | 0.0001   |
| 45-50 km        | 70-80 km        | -0.0003 | 0.0002    | -1.6 | 0.108 | -0.0008        | 0.0001   |
| >50 km          | 70-80 km        | -0.0003 | 0.0001    | -3.0 | 0.003 | -0.0005        | -0.0001  |

Table J.3: Night light by distance to the nearest mission station and homeland border:  
Mission station and homeland border ID fixed effects (continued)

| Homeland border         | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-------------------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km                  | 80-90 km        | -0.0003 | 0.0001    | -3.6 | 0.000 | -0.0005        | -0.0001  |
| 5-10 km                 | 80-90 km        | -0.0003 | 0.0001    | -4.5 | 0.000 | -0.0005        | -0.0002  |
| 10-15 km                | 80-90 km        | -0.0004 | 0.0001    | -3.8 | 0.000 | -0.0005        | -0.0002  |
| 15-20 km                | 80-90 km        | -0.0003 | 0.0001    | -3.6 | 0.000 | -0.0005        | -0.0002  |
| 20-25 km                | 80-90 km        | -0.0004 | 0.0001    | -4.5 | 0.000 | -0.0005        | -0.0002  |
| 25-30 km                | 80-90 km        | -0.0004 | 0.0001    | -4.4 | 0.000 | -0.0005        | -0.0002  |
| 30-35 km                | 80-90 km        | -0.0003 | 0.0001    | -2.6 | 0.010 | -0.0005        | -0.0001  |
| 35-40 km                | 80-90 km        | -0.0003 | 0.0001    | -2.2 | 0.026 | -0.0006        | 0.0000   |
| 40-45 km                | 80-90 km        | -0.0005 | 0.0002    | -3.1 | 0.002 | -0.0008        | -0.0002  |
| 45-50 km                | 80-90 km        | 0.0000  | 0.0002    | -0.1 | 0.902 | -0.0005        | 0.0004   |
| >50 km                  | 80-90 km        | -0.0003 | 0.0001    | -3.1 | 0.002 | -0.0005        | -0.0001  |
| 0-5 km                  | 90-100 km       | -0.0003 | 0.0001    | -4.2 | 0.000 | -0.0005        | -0.0002  |
| 5-10 km                 | 90-100 km       | -0.0004 | 0.0001    | -5.8 | 0.000 | -0.0006        | -0.0003  |
| 10-15 km                | 90-100 km       | -0.0003 | 0.0001    | -3.5 | 0.000 | -0.0005        | -0.0001  |
| 15-20 km                | 90-100 km       | -0.0003 | 0.0001    | -4.3 | 0.000 | -0.0005        | -0.0002  |
| 20-25 km                | 90-100 km       | -0.0002 | 0.0001    | -2.0 | 0.044 | -0.0004        | 0.0000   |
| 25-30 km                | 90-100 km       | -0.0004 | 0.0001    | -3.5 | 0.000 | -0.0006        | -0.0002  |
| 30-35 km                | 90-100 km       | -0.0003 | 0.0001    | -2.9 | 0.004 | -0.0005        | -0.0001  |
| 35-40 km                | 90-100 km       | -0.0003 | 0.0002    | -1.8 | 0.067 | -0.0006        | 0.0000   |
| 40-45 km                | 90-100 km       | -0.0001 | 0.0002    | -0.5 | 0.608 | -0.0004        | 0.0002   |
| 45-50 km                | 90-100 km       | -0.0006 | 0.0001    | -4.1 | 0.000 | -0.0009        | -0.0003  |
| >50 km                  | 90-100 km       | -0.0002 | 0.0001    | -1.5 | 0.136 | -0.0004        | 0.0001   |
| 0-5 km                  | >100 km         | -0.0002 | 0.0000    | -6.9 | 0.000 | -0.0003        | -0.0001  |
| 5-10 km                 | >100 km         | -0.0002 | 0.0000    | -7.7 | 0.000 | -0.0003        | -0.0002  |
| 10-15 km                | >100 km         | -0.0002 | 0.0000    | -6.0 | 0.000 | -0.0002        | -0.0001  |
| 15-20 km                | >100 km         | -0.0002 | 0.0000    | -6.2 | 0.000 | -0.0003        | -0.0001  |
| 20-25 km                | >100 km         | -0.0001 | 0.0000    | -3.3 | 0.001 | -0.0002        | 0.0000   |
| 25-30 km                | >100 km         | -0.0001 | 0.0000    | -3.6 | 0.000 | -0.0002        | -0.0001  |
| 30-35 km                | >100 km         | -0.0001 | 0.0000    | -3.1 | 0.002 | -0.0002        | 0.0000   |
| 35-40 km                | >100 km         | 0.0000  | 0.0000    | -1.0 | 0.324 | -0.0001        | 0.0000   |
| 40-45 km                | >100 km         | 0.0000  | 0.0001    | 0.5  | 0.636 | -0.0001        | 0.0002   |
| 45-50 km                | >100 km         | 0.0000  | 0.0000    | -1.1 | 0.292 | -0.0001        | 0.0000   |
| >50 km                  | >100 km         | 0.0000  | (omitted) |      |       |                |          |
| Controls                |                 |         |           |      |       |                | Yes      |
| Coloniser fixed effects |                 |         |           |      |       |                | Yes      |
| Country fixed effects   |                 |         |           |      |       |                | Yes      |
| Mission fixed effects   |                 |         |           |      |       |                | Yes      |
| Border fixed effects    |                 |         |           |      |       |                | Yes      |
| Std. err.               |                 |         |           |      |       |                | Robust   |
| R2                      |                 |         |           |      |       |                | 0.6296   |
| N                       |                 |         |           |      |       |                | 257,224  |

*Notes:* The regression model, displayed in Equation 2, controls for latitude, ruggedness, elevation, rainfall, temperature, land suitability for agriculture, malaria, tsetse flies, population density, uninhabited grid cells, major cities, islands, Sub-Saharan Africa, as well as the geodesic distances to coasts, rivers, railways, mines, national borders, historical explorer routes, precolonial cities, Muslim seats, Protestant printing presses, and postcolonial World Bank aid projects. Gaps between the first- and second-nearest mission stations and homeland borders are also accounted for. All variables are log-linearised except binaries.

Table J.4: Night light by distance to the nearest mission station and homeland border:  
Mission station and homeland border ID fixed effects interacted

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 0-10 km         | -0.0001 | 0.0003    | -0.3 | 0.751 | -0.0007        | 0.0005   |
| 5-10 km         | 0-10 km         | 0.0001  | 0.0003    | 0.3  | 0.767 | -0.0004        | 0.0006   |
| 10-15 km        | 0-10 km         | -0.0001 | 0.0002    | -0.6 | 0.570 | -0.0006        | 0.0003   |
| 15-20 km        | 0-10 km         | 0.0008  | 0.0003    | 2.4  | 0.017 | 0.0001         | 0.0014   |
| 20-25 km        | 0-10 km         | 0.0014  | 0.0004    | 3.3  | 0.001 | 0.0006         | 0.0022   |
| 25-30 km        | 0-10 km         | 0.0014  | 0.0004    | 3.5  | 0.000 | 0.0006         | 0.0022   |
| 30-35 km        | 0-10 km         | 0.0010  | 0.0005    | 2.2  | 0.031 | 0.0001         | 0.0019   |
| 35-40 km        | 0-10 km         | 0.0012  | 0.0005    | 2.5  | 0.014 | 0.0002         | 0.0022   |
| 40-45 km        | 0-10 km         | 0.0012  | 0.0005    | 2.2  | 0.026 | 0.0001         | 0.0023   |
| 45-50 km        | 0-10 km         | 0.0021  | 0.0005    | 4.0  | 0.000 | 0.0010         | 0.0031   |
| >50 km          | 0-10 km         | 0.0018  | 0.0003    | 5.4  | 0.000 | 0.0011         | 0.0024   |
| 0-5 km          | 10-20 km        | -0.0005 | 0.0001    | -4.2 | 0.000 | -0.0008        | -0.0003  |
| 5-10 km         | 10-20 km        | -0.0005 | 0.0001    | -3.6 | 0.000 | -0.0007        | -0.0002  |
| 10-15 km        | 10-20 km        | -0.0005 | 0.0002    | -2.8 | 0.005 | -0.0008        | -0.0001  |
| 15-20 km        | 10-20 km        | -0.0004 | 0.0001    | -2.9 | 0.004 | -0.0007        | -0.0001  |
| 20-25 km        | 10-20 km        | -0.0003 | 0.0002    | -1.6 | 0.104 | -0.0007        | 0.0001   |
| 25-30 km        | 10-20 km        | -0.0001 | 0.0002    | -0.4 | 0.676 | -0.0005        | 0.0003   |
| 30-35 km        | 10-20 km        | 0.0002  | 0.0002    | 0.9  | 0.364 | -0.0002        | 0.0006   |
| 35-40 km        | 10-20 km        | 0.0004  | 0.0003    | 1.3  | 0.193 | -0.0002        | 0.0009   |
| 40-45 km        | 10-20 km        | 0.0006  | 0.0003    | 2.1  | 0.033 | 0.0000         | 0.0012   |
| 45-50 km        | 10-20 km        | 0.0000  | 0.0003    | 0.0  | 0.999 | -0.0006        | 0.0006   |
| >50 km          | 10-20 km        | 0.0003  | 0.0002    | 1.8  | 0.070 | 0.0000         | 0.0007   |
| 0-5 km          | 20-30 km        | -0.0005 | 0.0001    | -3.8 | 0.000 | -0.0007        | -0.0002  |
| 5-10 km         | 20-30 km        | -0.0004 | 0.0001    | -2.9 | 0.004 | -0.0006        | -0.0001  |
| 10-15 km        | 20-30 km        | -0.0006 | 0.0001    | -4.9 | 0.000 | -0.0008        | -0.0004  |
| 15-20 km        | 20-30 km        | -0.0004 | 0.0001    | -3.3 | 0.001 | -0.0007        | -0.0002  |
| 20-25 km        | 20-30 km        | -0.0008 | 0.0001    | -5.4 | 0.000 | -0.0010        | -0.0005  |
| 25-30 km        | 20-30 km        | -0.0006 | 0.0001    | -4.2 | 0.000 | -0.0009        | -0.0003  |
| 30-35 km        | 20-30 km        | -0.0001 | 0.0002    | -0.6 | 0.531 | -0.0005        | 0.0003   |
| 35-40 km        | 20-30 km        | -0.0006 | 0.0002    | -2.9 | 0.003 | -0.0009        | -0.0002  |
| 40-45 km        | 20-30 km        | -0.0003 | 0.0002    | -1.4 | 0.153 | -0.0007        | 0.0001   |
| 45-50 km        | 20-30 km        | -0.0006 | 0.0003    | -2.0 | 0.048 | -0.0011        | 0.0000   |
| >50 km          | 20-30 km        | -0.0003 | 0.0001    | -2.5 | 0.013 | -0.0006        | -0.0001  |
| 0-5 km          | 30-40 km        | -0.0004 | 0.0001    | -4.3 | 0.000 | -0.0006        | -0.0002  |
| 5-10 km         | 30-40 km        | -0.0005 | 0.0001    | -4.9 | 0.000 | -0.0007        | -0.0003  |
| 10-15 km        | 30-40 km        | -0.0005 | 0.0001    | -4.7 | 0.000 | -0.0006        | -0.0003  |
| 15-20 km        | 30-40 km        | -0.0006 | 0.0001    | -5.5 | 0.000 | -0.0008        | -0.0004  |
| 20-25 km        | 30-40 km        | -0.0003 | 0.0001    | -2.3 | 0.022 | -0.0005        | 0.0000   |
| 25-30 km        | 30-40 km        | -0.0007 | 0.0001    | -5.1 | 0.000 | -0.0009        | -0.0004  |
| 30-35 km        | 30-40 km        | -0.0008 | 0.0001    | -6.7 | 0.000 | -0.0010        | -0.0006  |
| 35-40 km        | 30-40 km        | -0.0009 | 0.0002    | -5.6 | 0.000 | -0.0012        | -0.0006  |
| 40-45 km        | 30-40 km        | -0.0010 | 0.0002    | -5.6 | 0.000 | -0.0014        | -0.0007  |
| 45-50 km        | 30-40 km        | -0.0011 | 0.0002    | -4.4 | 0.000 | -0.0015        | -0.0006  |
| >50 km          | 30-40 km        | -0.0002 | 0.0002    | -1.3 | 0.201 | -0.0006        | 0.0001   |

Table J.4: Night light by distance to the nearest mission station and homeland border:  
Mission station and homeland border ID fixed effects interacted (continued)

| Homeland border | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-----------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km          | 40-50 km        | -0.0004 | 0.0001    | -4.7 | 0.000 | -0.0006        | -0.0003  |
| 5-10 km         | 40-50 km        | -0.0005 | 0.0001    | -4.9 | 0.000 | -0.0006        | -0.0003  |
| 10-15 km        | 40-50 km        | -0.0006 | 0.0001    | -6.6 | 0.000 | -0.0008        | -0.0004  |
| 15-20 km        | 40-50 km        | -0.0006 | 0.0001    | -5.9 | 0.000 | -0.0008        | -0.0004  |
| 20-25 km        | 40-50 km        | -0.0006 | 0.0001    | -5.8 | 0.000 | -0.0008        | -0.0004  |
| 25-30 km        | 40-50 km        | -0.0006 | 0.0001    | -6.1 | 0.000 | -0.0008        | -0.0004  |
| 30-35 km        | 40-50 km        | -0.0007 | 0.0001    | -5.3 | 0.000 | -0.0010        | -0.0005  |
| 35-40 km        | 40-50 km        | -0.0007 | 0.0002    | -4.6 | 0.000 | -0.0010        | -0.0004  |
| 40-45 km        | 40-50 km        | -0.0010 | 0.0001    | -7.8 | 0.000 | -0.0013        | -0.0008  |
| 45-50 km        | 40-50 km        | -0.0006 | 0.0002    | -2.5 | 0.013 | -0.0010        | -0.0001  |
| >50 km          | 40-50 km        | -0.0005 | 0.0001    | -4.4 | 0.000 | -0.0008        | -0.0003  |
| 0-5 km          | 50-60 km        | -0.0004 | 0.0001    | -4.8 | 0.000 | -0.0005        | -0.0002  |
| 5-10 km         | 50-60 km        | -0.0004 | 0.0001    | -4.4 | 0.000 | -0.0006        | -0.0002  |
| 10-15 km        | 50-60 km        | -0.0005 | 0.0001    | -5.2 | 0.000 | -0.0007        | -0.0003  |
| 15-20 km        | 50-60 km        | -0.0004 | 0.0001    | -3.4 | 0.001 | -0.0006        | -0.0002  |
| 20-25 km        | 50-60 km        | -0.0004 | 0.0001    | -4.1 | 0.000 | -0.0006        | -0.0002  |
| 25-30 km        | 50-60 km        | -0.0006 | 0.0001    | -6.0 | 0.000 | -0.0008        | -0.0004  |
| 30-35 km        | 50-60 km        | -0.0006 | 0.0001    | -4.7 | 0.000 | -0.0009        | -0.0004  |
| 35-40 km        | 50-60 km        | -0.0004 | 0.0001    | -3.7 | 0.000 | -0.0006        | -0.0002  |
| 40-45 km        | 50-60 km        | -0.0007 | 0.0002    | -3.9 | 0.000 | -0.0010        | -0.0003  |
| 45-50 km        | 50-60 km        | -0.0007 | 0.0001    | -4.9 | 0.000 | -0.0009        | -0.0004  |
| >50 km          | 50-60 km        | -0.0003 | 0.0001    | -3.0 | 0.003 | -0.0005        | -0.0001  |
| 0-5 km          | 60-70 km        | -0.0004 | 0.0001    | -4.1 | 0.000 | -0.0006        | -0.0002  |
| 5-10 km         | 60-70 km        | -0.0004 | 0.0001    | -4.1 | 0.000 | -0.0006        | -0.0002  |
| 10-15 km        | 60-70 km        | -0.0005 | 0.0001    | -5.7 | 0.000 | -0.0007        | -0.0003  |
| 15-20 km        | 60-70 km        | -0.0004 | 0.0001    | -4.0 | 0.000 | -0.0006        | -0.0002  |
| 20-25 km        | 60-70 km        | -0.0006 | 0.0001    | -5.1 | 0.000 | -0.0008        | -0.0004  |
| 25-30 km        | 60-70 km        | -0.0005 | 0.0001    | -4.4 | 0.000 | -0.0008        | -0.0003  |
| 30-35 km        | 60-70 km        | -0.0002 | 0.0001    | -1.5 | 0.142 | -0.0005        | 0.0001   |
| 35-40 km        | 60-70 km        | -0.0006 | 0.0001    | -4.5 | 0.000 | -0.0009        | -0.0004  |
| 40-45 km        | 60-70 km        | -0.0006 | 0.0001    | -4.7 | 0.000 | -0.0009        | -0.0004  |
| 45-50 km        | 60-70 km        | -0.0007 | 0.0001    | -5.5 | 0.000 | -0.0009        | -0.0004  |
| >50 km          | 60-70 km        | -0.0004 | 0.0001    | -3.5 | 0.000 | -0.0005        | -0.0002  |
| 0-5 km          | 70-80 km        | -0.0003 | 0.0001    | -3.4 | 0.001 | -0.0005        | -0.0001  |
| 5-10 km         | 70-80 km        | -0.0003 | 0.0001    | -3.0 | 0.003 | -0.0005        | -0.0001  |
| 10-15 km        | 70-80 km        | -0.0004 | 0.0001    | -4.1 | 0.000 | -0.0006        | -0.0002  |
| 15-20 km        | 70-80 km        | -0.0005 | 0.0001    | -6.0 | 0.000 | -0.0006        | -0.0003  |
| 20-25 km        | 70-80 km        | -0.0004 | 0.0001    | -5.0 | 0.000 | -0.0006        | -0.0003  |
| 25-30 km        | 70-80 km        | -0.0003 | 0.0001    | -2.3 | 0.021 | -0.0006        | 0.0000   |
| 30-35 km        | 70-80 km        | -0.0005 | 0.0001    | -4.4 | 0.000 | -0.0007        | -0.0003  |
| 35-40 km        | 70-80 km        | -0.0003 | 0.0001    | -2.4 | 0.017 | -0.0006        | -0.0001  |
| 40-45 km        | 70-80 km        | -0.0002 | 0.0002    | -1.2 | 0.248 | -0.0005        | 0.0001   |
| 45-50 km        | 70-80 km        | -0.0003 | 0.0002    | -1.4 | 0.149 | -0.0007        | 0.0001   |
| >50 km          | 70-80 km        | -0.0003 | 0.0001    | -2.6 | 0.009 | -0.0005        | -0.0001  |

Table J.4: Night light by distance to the nearest mission station and homeland border:  
Mission station and homeland border ID fixed effects interacted (continued)

| Homeland border         | Mission station | Coef.   | Std. Err. | t    | P>t   | 95% Confidence | Interval |
|-------------------------|-----------------|---------|-----------|------|-------|----------------|----------|
| 0-5 km                  | 80-90 km        | -0.0003 | 0.0001    | -2.9 | 0.004 | -0.0004        | -0.0001  |
| 5-10 km                 | 80-90 km        | -0.0003 | 0.0001    | -4.3 | 0.000 | -0.0005        | -0.0002  |
| 10-15 km                | 80-90 km        | -0.0004 | 0.0001    | -3.9 | 0.000 | -0.0006        | -0.0002  |
| 15-20 km                | 80-90 km        | -0.0003 | 0.0001    | -3.0 | 0.003 | -0.0005        | -0.0001  |
| 20-25 km                | 80-90 km        | -0.0004 | 0.0001    | -4.3 | 0.000 | -0.0005        | -0.0002  |
| 25-30 km                | 80-90 km        | -0.0003 | 0.0001    | -4.0 | 0.000 | -0.0005        | -0.0002  |
| 30-35 km                | 80-90 km        | -0.0003 | 0.0001    | -2.9 | 0.004 | -0.0005        | -0.0001  |
| 35-40 km                | 80-90 km        | -0.0003 | 0.0001    | -2.2 | 0.025 | -0.0006        | 0.0000   |
| 40-45 km                | 80-90 km        | -0.0005 | 0.0002    | -3.2 | 0.001 | -0.0008        | -0.0002  |
| 45-50 km                | 80-90 km        | 0.0000  | 0.0002    | -0.1 | 0.941 | -0.0005        | 0.0004   |
| >50 km                  | 80-90 km        | -0.0002 | 0.0001    | -2.5 | 0.011 | -0.0004        | -0.0001  |
| 0-5 km                  | 90-100 km       | -0.0003 | 0.0001    | -4.0 | 0.000 | -0.0005        | -0.0002  |
| 5-10 km                 | 90-100 km       | -0.0004 | 0.0001    | -5.5 | 0.000 | -0.0006        | -0.0003  |
| 10-15 km                | 90-100 km       | -0.0004 | 0.0001    | -3.6 | 0.000 | -0.0005        | -0.0002  |
| 15-20 km                | 90-100 km       | -0.0003 | 0.0001    | -4.1 | 0.000 | -0.0005        | -0.0002  |
| 20-25 km                | 90-100 km       | -0.0002 | 0.0001    | -1.8 | 0.078 | -0.0004        | 0.0000   |
| 25-30 km                | 90-100 km       | -0.0004 | 0.0001    | -3.6 | 0.000 | -0.0006        | -0.0002  |
| 30-35 km                | 90-100 km       | -0.0002 | 0.0001    | -2.7 | 0.008 | -0.0004        | -0.0001  |
| 35-40 km                | 90-100 km       | -0.0003 | 0.0002    | -1.9 | 0.058 | -0.0006        | 0.0000   |
| 40-45 km                | 90-100 km       | -0.0001 | 0.0002    | -0.6 | 0.571 | -0.0004        | 0.0002   |
| 45-50 km                | 90-100 km       | -0.0006 | 0.0001    | -4.2 | 0.000 | -0.0009        | -0.0003  |
| >50 km                  | 90-100 km       | -0.0001 | 0.0001    | -1.0 | 0.306 | -0.0003        | 0.0001   |
| 0-5 km                  | >100 km         | -0.0002 | 0.0000    | -6.0 | 0.000 | -0.0002        | -0.0001  |
| 5-10 km                 | >100 km         | -0.0002 | 0.0000    | -6.7 | 0.000 | -0.0003        | -0.0001  |
| 10-15 km                | >100 km         | -0.0002 | 0.0000    | -5.3 | 0.000 | -0.0002        | -0.0001  |
| 15-20 km                | >100 km         | -0.0002 | 0.0000    | -5.6 | 0.000 | -0.0002        | -0.0001  |
| 20-25 km                | >100 km         | -0.0001 | 0.0000    | -2.9 | 0.004 | -0.0002        | 0.0000   |
| 25-30 km                | >100 km         | -0.0001 | 0.0000    | -3.6 | 0.000 | -0.0002        | -0.0001  |
| 30-35 km                | >100 km         | -0.0001 | 0.0000    | -3.2 | 0.001 | -0.0002        | 0.0000   |
| 35-40 km                | >100 km         | 0.0000  | 0.0000    | -1.2 | 0.242 | -0.0001        | 0.0000   |
| 40-45 km                | >100 km         | 0.0000  | 0.0001    | 0.4  | 0.670 | -0.0001        | 0.0002   |
| 45-50 km                | >100 km         | -0.0001 | 0.0000    | -1.2 | 0.224 | -0.0001        | 0.0000   |
| >50 km                  | >100 km         | 0.0000  | (omitted) |      |       |                |          |
| Controls                |                 |         |           |      |       |                | Yes      |
| Coloniser fixed effects |                 |         |           |      |       |                | Yes      |
| Country fixed effects   |                 |         |           |      |       |                | Yes      |
| Mission fixed effects   |                 |         |           |      |       |                | Yes      |
| Border fixed effects    |                 |         |           |      |       |                | Yes      |
| Std. err.               |                 |         |           |      |       |                | Robust   |
| R2                      |                 |         |           |      |       |                | 0.6296   |
| N                       |                 |         |           |      |       |                | 257,224  |

*Notes:* The regression model, displayed in Equation 2, controls for latitude, ruggedness, elevation, rainfall, temperature, land suitability for agriculture, malaria, tsetse flies, population density, uninhabited grid cells, major cities, islands, Sub-Saharan Africa, as well as the geodesic distances to coasts, rivers, railways, mines, national borders, historical explorer routes, precolonial cities, Muslim seats, Protestant printing presses, and postcolonial World Bank aid projects. Gaps between the first- and second-nearest mission stations and homeland borders are also accounted for. All variables are log-linearised except binaries.