Appendix 1. Scheme of explanatory variables and their respective resources.

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| Variable  | Information/method | Source |
| **Bioclimatic**  |  | WorldClim database (Hijmans et al. 2005) |
| Bio 1 | Annual mean temperature |
| Bio 2 | Mean diurnal range (max temp - min temp) |
| Bio 3 | Isothermality (bio 2/bio 7) (\* 100) |
| Bio 4 | Temperature seasonality (standard deviation \*100) |
| Bio 5 | Max. temperature of warmest month |
| Bio 6 | Min. temperature of coldest month |
| Bio 7 | Temperature annual range (bio 5-bio 6) |
| Bio 8 | Mean temperature of wettest quarter |
| Bio 9 | Mean temperature of driest quarter |
| Bio 10 | Mean temperature of warmest quarter |
| Bio 11 | Mean temperature of coldest quarter |
| Bio 12 | Annual precipitation |
| Bio 13 | Precipitation of wettest month |
| Bio 14 | Precipitation of driest month |
| Bio 15 | Precipitation seasonality (coefficient of variation) |
| Bio 16 | Precipitation of wettest quarter |
| Bio 17 | Precipitation of driest quarter |
| Bio 18 | Precipitation of warmest quarter |
| Bio 19 | Precipitation of coldest quarter |
| **Topographic** |  |  |
| Altitude | Using coordinates | http://www.cgiar-csi.org/data/elevation |
| Distance to the coastline | Directly using coordinates | ArcGIS (version 10.3) |
| **Soil variables** |  | Data collected from Soil analysis following the USDA/NRCS Protocol (Burt 2004) |
| Organic matter (%) | Walkley-Black method |
| CaCO3 (%) | Reaction with dilute HCl |
| pH in H2O | Using pH-meter in a 1:5 soil/water suspension |
| Electric conductivity (mS/cm) | Using conductivity meter in a 1:5 soil suspension |
| **Anthropogenic factors** | an ordinal scale | Field observation in each transect |
| Overgrazing (OG) | (0) absent, (1) low, (2) moderate, (3) high and (4) severe |
| Overcutting (OC) | (0) absent, (1) low, (2) moderate, (3) high and (4) severe |
| Urbanization (UR) | (0) absent, (1) low, (2) moderate, (3) high and (4) severe |
| Trampling (TR) | (0) absent, (1) low, (2) moderate, (3) high and (4) severe |
| Mining (MN) | (0) absent, (1) low, (2) moderate, (3) high and (4) severe |