

Supplementary Materials:

Table S1. Predictor variables

Variable	Name	Description	Source
Climatic Factor	Bio1	Annual Mean Temperature	Global Climate Dataset CHELSA V.1.2. (2004–2013)
	Bio2	Mean Diurnal Range	
	Bio3	Isothermality	
	Bio4	Temperature Seasonality	
	Bio5	Max Temperature of Warmest Month	
	Bio6	Min Temperature of Coldest Month	
	Bio7	Temperature Annual Range	
	Bio8	Mean Temperature of Wettest Quarter	
	Bio9	Mean Temperature of Driest Quarter	
	Bio10	Mean Temperature of Warmest Quarter	
	Bio11	Mean Temperature of Coldest Quarter	
	Bio12	Annual Precipitation	
	Bio13	Precipitation of Wettest Month	
	Bio14	Precipitation of Driest Month	
	Bio15	Precipitation Seasonality	
	Bio16	Precipitation of Wettest Quarter	
	Bio17	Precipitation of Driest Quarter	
	Bio18	Precipitation of Warmest Quarter	
	Bio19	Precipitation of Coldest Quarter	
	WI	Warmth Index	
	MTCI	Minimum Temperature of the Coldest Month Index	
	PEI	Precipitation Effectiveness Index	
	GDD	Growing Degree Days	
Soil Factor	BLDFIE	Bulk Density (fine earth) in kg/m ³ at 0.00 m depth	World Soil Data (SoilGrids 250m 2.0)
	CLYPPT	Clay content (0–2 µm) mass fraction in % at 0.00 m depth	
	CRFVOL	Coarse fragment volumetric in % at 0.00 m depth	
	SLTPPT	Silt content (2–50 µm) mass fraction % at 0.00 m depth	
	SNDPPT	Sand content (50–2000 µm) mass fraction % at 0.00 m depth	
	CECSOL	Cation exchange capacity of soil in cmolc/kg at 0.00 m depth	
	ORCDRC	Soil organic carbon content (fine earth fraction) in g per kg at 0.00 m depth	
	PHIHOX	Soil pH × 10 in H ₂ O at 0.00 m depth	
	PHIKCL	Soil pH × 10 in KCl at 0.00 m depth	
Topographic Factor	DEM Aspect	Digital Elevation Model Aspect	National Geographic

Variable	Name	Description	Source
	Slope	Slope	Information Institute database
Artificial Factor	LC	Land Cover map	Ministry of Environment (2007)
	Roads	Distance from roads	Standard Node Link from National Transport Information Center (2015)
Vegetation Factor	MaxNDVI	Normalized Difference Vegetation Index	
	MaxARVI	Atmospherically Resistant Vegetation Index	Landsat-5 and Landsat-7 Surface
	MaxRDVI	Renormalized Difference Vegetation Index	Reflectance Tier 1 images (2011-2015)
	MaxSAVI	Soil Adjusted Vegetation Index	
	MaxSR	Simple Ratio	