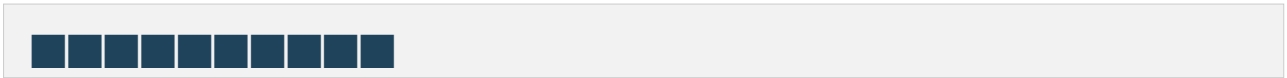


Trends.Earth — ■■■■■■■■■■
■■■■■■■■■■

version 2.3.6

Conservation International

October 09, 2026



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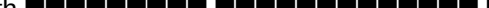
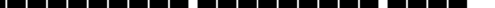
Trends.Earth 提供的全球地表温度数据集，展示了从 1981 年到 2023 年的全球地表温度变化。该数据集由 NASA 和 NOAA 联合发布，是全球气候研究的重要数据源。数据集包含全球范围内的地表温度数据，覆盖范围从 90°N 到 90°S，经度覆盖范围从 0° 到 360°。数据集的时间范围从 1981 年 1 月 1 日到 2023 年 12 月 31 日。数据集的分辨率是 1° 经纬度。数据集的格式是 NetCDF。数据集的变量包括：地表温度 (T_{surf})、地表温度异常 (T_{surf} - T₁₉₈₁₋₁₉₉₀)、地表温度异常标准差 (T_{surf} - T₁₉₈₁₋₁₉₉₀ 的标准差) 和地表温度异常标准差的平方 (T_{surf} - T₁₉₈₁₋₁₉₉₀ 的标准差的平方)。

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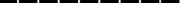
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The diagram illustrates the workflow for NDI trend analysis. It begins with 'Annual integrals of NDI', represented by a stack of green rectangles for the years 2000 to 2015. A detailed inset shows a typical NDI curve with labels: 'Start of season', 'Rise of foliage', 'Maximum NDI', 'Peak of foliage', 'Decline of foliage', 'End of season', and 'Seasonal growth'. The 'Time Integrated NDI' is the area under the curve. This leads to the 'NDVI annual series' (2000-2015). The next step is 'Linear regression (Mann-Kendall significance test)', shown with a line graph of 'Annual NDI integral' over 'Time (years)' featuring a blue data line and an orange regression line. The final output is 'Improvement or Degradation based on significance of trends'.





















TRENDS.EARTH

4

■■■■■■■■■■

Dataset	Version	Period	Resolution	Frequency	Units
ERA-Interim	ERA-Interim	1979-2016	0.75° x 0.75°	Hourly	mm/day (0-7 mm)
GPCC v2.3.1	GPCC v2.3.1	1979-2019	2.5° x 2.5°	Monthly	mm/day
GPCC V6	GPCC V6	1891-2019	1° x 1°	Monthly	mm/day
CHIRPS	CHIRPS	1981-2024	5 km	50° x 50°	mm/day
PERSIANN-CDR	PERSIANN-CDR	1983-2024	25 km	60° x 60°	mm/day
MOD16A2.GF	MOD16A2.GF	2000-2024	500 km	Hourly	mm/day (=mm)*10

 Twente University

 Faculty of Engineering Technology

« »

1. **Сторона, не исполнившая обязательства, предусмотренные настоящим Договором, несет ответственность за возмещение убытков, причиненных другой Стороне.**
2. **В случае нарушения Стороной своих обязательств, предусмотренных настоящим Договором, другая Сторона имеет право потребовать возмещения убытков, причиненных нарушением, в размере 3% от суммы неисполненных обязательств.**
3. **В случае нарушения Стороной своих обязательств, предусмотренных настоящим Договором, другая Сторона имеет право потребовать возмещения убытков, причиненных нарушением, в размере 5% от суммы неисполненных обязательств.**

4. $\mathcal{A}$ 是 $\mathcal{B}$ 的子代数, $\mathcal{B}$ 是 $\mathcal{C}$ 的子代数. 证明: $\mathcal{A}$ 是 $\mathcal{C}$ 的子代数.
5. $\mathcal{A}$ 是 $\mathcal{B}$ 的子代数, $\mathcal{B}$ 是 $\mathcal{C}$ 的子代数. 证明: $\mathcal{A}$ 是 $\mathcal{C}$ 的子代数.
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7. $\mathcal{A}$ 是 $\mathcal{B}$ 的子代数, $\mathcal{B}$ 是 $\mathcal{C}$ 的子代数. 证明: $\mathcal{A}$ 是 $\mathcal{C}$ 的子代数.

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11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

[illegible]

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NDVI	AVHRR/GIMMS	1982-2015	8		NDVI * 10000
NDVI	MOD13Q1-coll6.1	2001–2024	250		NDVI * 10000
	ESA CCI	1992-2022	300		
			250		

[illegible]

Aggregating Land Productivity metrics

Trend	State	Performance		5 Classes	3 Classes
Improving	Improving	Stable		Improving	Improving
Improving	Improving	Degrading		Improving	Improving
Improving	Stable	Stable		Improving	Improving
Improving	Stable	Degrading		Improving	Improving
Improving	Degrading	Stable		Improving	Improving
Improving	Degrading	Degrading		Moderate decline	Degrading
Stable	Improving	Stable		Stable	Stable
Stable	Improving	Degrading		Stable	Stable
Stable	Stable	Stable	→	Stable	Stable
Stable	Stable	Degrading		Stressed	Stable
Stable	Degrading	Stable		Moderate decline	Degrading
Stable	Degrading	Degrading		Degrading	Degrading
Degrading	Improving	Stable		Degrading	Degrading
Degrading	Improving	Degrading		Degrading	Degrading
Degrading	Stable	Stable		Degrading	Degrading
Degrading	Stable	Degrading		Degrading	Degrading
Degrading	Degrading	Stable		Degrading	Degrading
Degrading	Degrading	Degrading		Degrading	Degrading

[illegible]

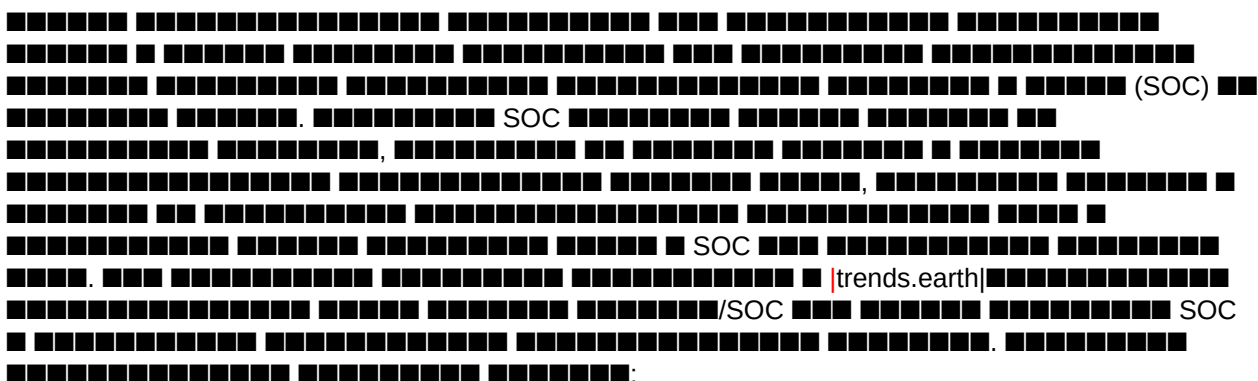
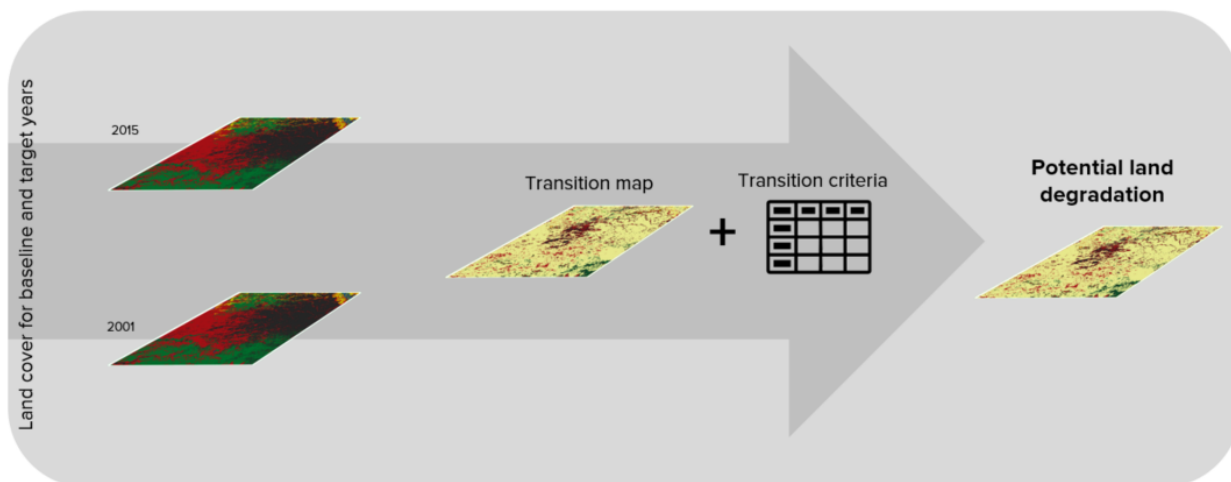
Legend

Improvement

*The "Grassland" class consists of grassland, shrub, and sparsely vegetated areas (if the default aggregation is used).

Save table to file...

- 10



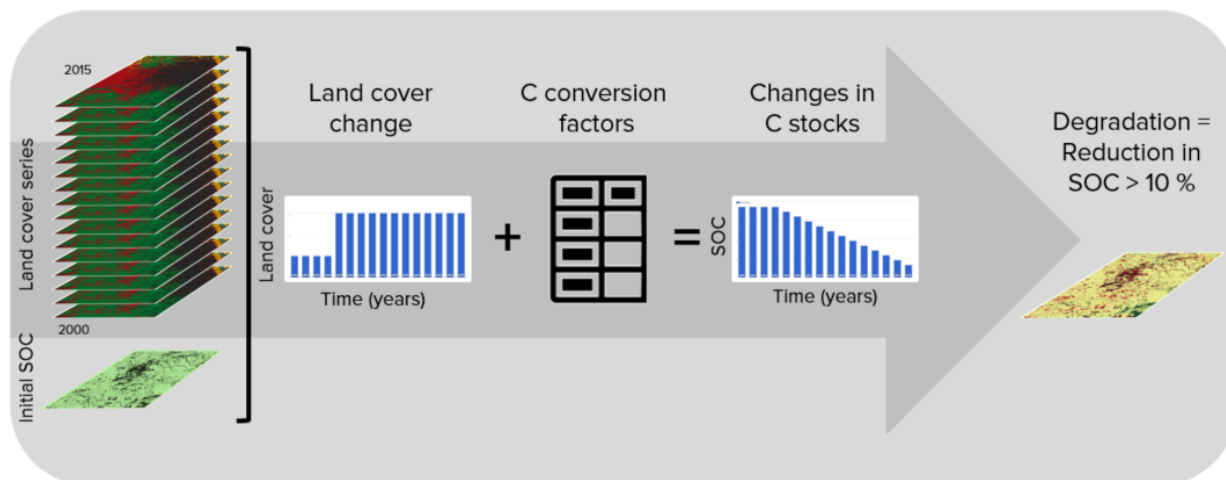
- 11

UNCCD, a United Nations programme, was established in 2002. It is the only United Nations programme dedicated to combating desertification and land degradation, and promoting sustainable land management. UNCCD is a part of the United Nations System of Earth, and is a member of the United Nations Development Group. UNCCD is a part of the United Nations System of Earth, and is a member of the United Nations Development Group. UNCCD is a part of the United Nations System of Earth, and is a member of the United Nations Development Group.

LU coefficients	Forest	Grasslands	Croplands	Wetlands	Artificial areas	Bare lands	Water bodies
Forest	1	1	f	1	0.1	0.1	1
Grasslands	1	1	f	1	0.1	0.1	1
Croplands	1/f	1/f	1	1/0.71	0.1	0.1	1
Wetlands	1	1	0.71	1	0.1	0.1	1
Artificial areas	2	2	2	2	1	1	1
Bare lands	2	2	2	2	1	1	1
Water bodies	1	1	1	1	1	1	1

SOC [redacted] [redacted] [redacted] [redacted] [redacted] [redacted],
[redacted] [redacted] [redacted] [redacted], [redacted] [redacted] [redacted]
[redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted]
[redacted]: [redacted] [redacted] ($f = 0,80$), [redacted]
[redacted] ($f = 0,69$), [redacted] [redacted] ($f = 0,58$), [redacted] [redacted] ($f = 0,48$) ■
[redacted] [redacted] ($f = 0,64$).

4. ██████████ ████████████████████ ██████████ █ SOC ██████████ ██████████ █ ██████████
██████████, ██████████, █ ██████████ SOC ██████████ ███ 10 % ███ ██████████ █
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Aggregating SDG 15.3.1 sub-indicators - 10AO

Land Productivity	Land Cover	SOC	SDG 15.3.1
Improving	Improving	Improving	Improving
Improving	Improving	Stable	Improving
Improving	Improving	Declining	Declining
Improving	Stable	Improving	Improving
Improving	Stable	Stable	Improving
Improving	Stable	Declining	Declining
Improving	Declining	Improving	Declining
Improving	Declining	Stable	Declining
Improving	Declining	Declining	Declining
Stable	Improving	Improving	Improving
Stable	Improving	Stable	Improving
Stable	Improving	Declining	Declining
Stable	Stable	Improving	Improving
Stable	Stable	Stable	Stable
Stable	Stable	Declining	Declining
Stable	Declining	Improving	Declining
Stable	Declining	Stable	Declining
Stable	Declining	Declining	Declining
Declining	Improving	Improving	Declining
Declining	Improving	Stable	Declining
Declining	Improving	Declining	Declining
Declining	Stable	Improving	Declining
Declining	Stable	Stable	Declining
Declining	Stable	Declining	Declining
Declining	Declining	Improving	Declining
Declining	Declining	Stable	Declining
Declining	Declining	Declining	Declining

[illegible]

Note

«»
15.3.1, (**..** ==
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15.3.1

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		PERIOD ASSESSMENT		
		DEGRADED	STABLE*	IMPROVED*
BASELINE	DEGRADED	Degraded	Degraded	Improved
	STABLE*	Degraded	Stable	Improved
	IMPROVED*	Degraded	Improved	Improved

* Not Degraded areas.

Note

19. 2025年7月15日，本局收到贵局转来的《关于申请公开2025年7月15日以前形成的有关文件、资料、信息的情况说明》（以下简称《情况说明》），经本局工作人员初步审查，认为该《情况说明》中涉及的2025年7月15日以前形成的有关文件、资料、信息，属于本局在履行职责过程中形成的内部文件、资料、信息，依法不予公开。

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[illegible]

3x3

		PERIOD ASSESSMENT		
		DEGRADED	STABLE	IMPROVED
BASELINE	DEGRADED	1 - Persistent Degradation	3 - Baseline Degradation	6 - Recent Improvement
	STABLE	2 - Recent Degradation	4 - Stability	6 - Recent Improvement
	IMPROVED	2 - Recent Degradation	5 - Baseline Improvement	7 - Persistent Improvement

1. 本報告係根據「證券交易法」第36條之規定，由本公司董事會編製，除提供股東外，並應提供社會大眾，以資參考。

[illegible]

■■■■■■■■■■■■■■■■■■■■ ■■■■ 2 ■■■■ ■■■■ (■■■ 2)

[illegible][illegible][illegible]

[illegible][illegible]

- Percentage of the female population exposed to land degradation
- Percentage of the male population exposed to land degradation
- Percentage of the total (female and male) population exposed to land degradation

To calculate the SO 2-3 indicator, **▲TRENDS.EARTH** uses gridded population data from the [WorldPop](#) project. WorldPop provides separate raster layers for male and female population, each representing the estimated number of people per grid cell for a given year. **▲TRENDS.EARTH** overlays these population grids with the final SDG 15.3.1 indicator map, which classifies every pixel as **degraded**, **stable**, or **improved**. For each degradation class the tool sums the number of people — separately for males and females — whose grid cell falls within that class. Areas classified as water bodies are masked out and excluded from the totals, in line with UNCCD reporting requirements.

The resulting totals are then expressed as percentages of the total population within the area of interest, producing the three SO 2-3 metrics: the percentage of the female population, the male population, and the combined population exposed to land degradation. In the output map, pixels in degraded areas retain their population count as a positive value, pixels in improved areas are shown as negative values (indicating population in areas where conditions have improved), and water areas are marked as no-data. This sign convention makes it straightforward to distinguish, at a glance, populations living on degraded land from those on improving land.

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■■■■■■■■■■ ■■■■ 3 ■■■■ ■■■■ (■■■ 3)

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[REDACTED], [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
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[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED], [REDACTED] [REDACTED] [REDACTED]
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[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED], [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]

1. **ВВЕДЕНИЕ** — Целью настоящего исследования является изучение влияния различных факторов на развитие экономики страны. В работе рассматриваются основные тенденции экономического роста, а также анализируются различные модели развития. В частности, особое внимание уделяется роли человеческого капитала и инноваций в современном мире.

[illegible]

1. Introduction

6. [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED].
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]:

7. $\frac{1}{x^2} = x^{-2}$. Differentiating both sides with respect to x , we get $-\frac{2}{x^3} = -2x^{-3}$. Therefore, $\frac{d}{dx} \frac{1}{x^2} = -\frac{2}{x^3}$.

■■■■ ■■■■■■■■■■■■■■■■■■■■■■ ■■ g ■■■■■■■ ■■■■■.

8. $\mathbb{R}^n$ 上のベクトル空間 V 上の線形変換 $H(x)$ が V の基底 $\{e_1, \dots, e_n\}$ に対して $H(e_i) = e_i$ かつ $H(e_1 + e_2) = e_1 + e_2$ であるとき、 $H(x)$ は恒等変換であるか？

$$Z = SPI = + \left(t - \frac{c_0 + c_1 t + c_2 t^2}{1 + d_1 t + d_2 t^2 + d_3 t^3} \right) 0.5 < H(x) \leq 1.0$$

$$t = \sqrt{\ln \left(\frac{1}{H(x)^2} \right)} \quad 0 < H(x) \leq 0.5$$
$$t = \sqrt{\ln \left(\frac{1}{1 - H(x)^2} \right)} \quad 0.5 < H(x) \leq 1.0$$

$$d_3 = 0.001308$$

1. 本報告係根據「證券交易法」及「證券報告規則」之規定，由本公司董事會及監察人共同編製，並經會計師查核簽證，其內容如有虛偽、不實或隱匿重要事實，致影響投資者之投資判斷，本公司董事會及監察人將依法負法律上之責任。

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■ ■ 1,5 ■ ■ 1,99	■■■■■■■ ■■■■■■
■ ■ 1,0 ■ ■ 1,49	■■■■■■■■■ ■■■■■■
■ ■ -0,99 ■ ■ 0,99	■■■■■ ■■■■■
■ ■ -1,0 ■ ■ -1,49	■■■■■■■■■ ■■■■
■ ■ -1,5 ■ ■ -1,99	■■■■■ ■■■■
-2,0 ■ ■ ■ ■■■■■■	■■■■■■■■■■■■■ ■■■■

[illegible]

1. **THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES AND AGENCIES.**
 2. **THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES AND AGENCIES.**
 3. **THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES AND AGENCIES.**

$$P_{ij} = \frac{area_{ij}}{Total\ area} \times 100$$

P_{ij} ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■ ■■■■■■ ■■■■■■ i ■ ■■■■ j
areaij ■■■■■■■■ ■■■■■■■■■■, ■■■■■■■■■■ ■ ■■■■■■ ■■■■■■ i ■ ■■■■■■■■ ■■■■
j
■■■■ «■■■■■■■ ■■■■■■■■■■» ■■■■■■■■■■ ■■■■■■ ■■■■■■■■ ■■■■■■■■■■.

■■■■■■■■■■ SO3 Level II indicator (SO 3-2 Exposure)

[illegible]

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Carrão et al., 2016,

Proxy indicators for vulnerability to drought used in Carrao et al. 2016 (Table 1). With the exception of gROADS and FAO's Irrigated Agricultural Lands which are both gridded data, all data are available only at the national level. (Also draws on Table 14 from the Good practice guidance for national reporting on UNCCD Strategic Objective 3.)

		http://www.eia.gov/
		http://data.worldbank.org/products/wdi
		http://data.worldbank.org/products/wdi
		http://data.worldbank.org/products/wdi
		http://data.worldbank.org/products/wdi
		http://data.worldbank.org/products/wdi

■■■■■■■■■■

[illegible]

11.3.1.1 数据源

数据源名称	数据源描述	数据源链接
全球道路网络数据 (gROADSv1) (2015-2016年, 全球道路网络数据, 100米分辨率)	gROADSv1	https://data.nasa.gov/dataset/global-roads-open-access-data-set-version-1-groadsv1

在本文中, 我们使用了全球道路网络数据 (gROADSv1) 数据集, 该数据集由 NASA 提供, 包含全球道路网络的详细数据。该数据集包含道路的长度、宽度、类型等信息。我们使用了该数据集来计算道路网络的密度和连通性。此外, 我们还使用了全球人口数据 (WorldPop) 数据集, 该数据集由 DigitalGlobe 提供, 包含全球人口分布的详细信息。我们使用了该数据集来计算人口密度和人口分布。最后, 我们还使用了全球经济数据 (WorldEcon) 数据集, 该数据集由 World Bank 提供, 包含全球经济活动的详细信息。我们使用了该数据集来计算经济活动的密度和分布。DEA, 是一种用于评估决策单元 (DMU) 效率的方法, 它通过比较 DMU 的投入和产出, 来评估其效率。在本文中, 我们使用了 DEA 方法来评估不同国家的道路网络效率。

$$dv_i = \frac{Soc_i + Econ_i + Infr_i}{3}$$

Soc_i, Econ_i 和 Infr_i 分别表示国家 i 的社会、经济 and 基础设施的得分。这些得分是根据相关指标计算得出的。

11.3.1.1 数据源

11.3.1.1 数据源

Note

本文档包含 11.3.1.1 数据源 (2019) 数据集的详细信息。该数据集包含全球道路网络的详细数据, 包括道路的长度、宽度、类型等信息。我们使用了该数据集来计算道路网络的密度和连通性。此外, 我们还使用了全球人口数据 (WorldPop) 数据集, 该数据集由 DigitalGlobe 提供, 包含全球人口分布的详细信息。我们使用了该数据集来计算人口密度和人口分布。最后, 我们还使用了全球经济数据 (WorldEcon) 数据集, 该数据集由 World Bank 提供, 包含全球经济活动的详细信息。我们使用了该数据集来计算经济活动的密度和分布。DEA, 是一种用于评估决策单元 (DMU) 效率的方法, 它通过比较 DMU 的投入和产出, 来评估其效率。在本文中, 我们使用了 DEA 方法来评估不同国家的道路网络效率。

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1992. 1993. 1994. 1995. 1996. 1997. 1998. 1999. 2000. 2001. 2002. 2003. 2004. 2005. 2006. 2007. 2008. 2009. 2010. 2011. 2012. 2013. 2014. 2015. 2016. 2017. 2018. 2019. 2020. 2021. 2022. 2023. 2024. 2025. 2026. 2027. 2028. 2029. 2030. 2031. 2032. 2033. 2034. 2035. 2036. 2037. 2038. 2039. 2040. 2041. 2042. 2043. 2044. 2045. 2046. 2047. 2048. 2049. 2050. 2051. 2052. 2053. 2054. 2055. 2056. 2057. 2058. 2059. 2060. 2061. 2062. 2063. 2064. 2065. 2066. 2067. 2068. 2069. 2070. 2071. 2072. 2073. 2074. 2075. 2076. 2077. 2078. 2079. 2080. 2081. 2082. 2083. 2084. 2085. 2086. 2087. 2088. 2089. 2090. 2091. 2092. 2093. 2094. 2095. 2096. 2097. 2098. 2099. 2100. 2101. 2102. 2103. 2104. 2105. 2106. 2107. 2108. 2109. 2110. 2111. 2112. 2113. 2114. 2115. 2116. 2117. 2118. 2119. 2120. 2121. 2122. 2123. 2124. 2125. 2126. 2127. 2128. 2129. 2130. 2131. 2132. 2133. 2134. 2135. 2136. 2137. 2138. 2139. 2140. 2141. 2142. 2143. 2144. 2145. 2146. 2147. 2148. 2149. 2150. 2151. 2152. 2153. 2154. 2155. 2156. 2157. 2158. 2159. 2160. 2161. 2162. 2163. 2164. 2165. 2166. 2167. 2168. 2169. 2170. 2171. 2172. 2173. 2174. 2175. 2176. 2177. 2178. 2179. 2180. 2181. 2182. 2183. 2184. 2185. 2186. 2187. 2188. 2189. 2190. 2191. 2192. 2193. 2194. 2195. 2196. 2197. 2198. 2199. 2200. 2201. 2202. 2203. 2204. 2205. 2206. 2207. 2208. 2209. 2210. 2211. 2212. 2213. 2214. 2215. 2216. 2217. 2218. 2219. 2220. 2221. 2222. 2223. 2224. 2225. 2226. 2227. 2228. 2229. 2230. 2231. 2232. 2233. 2234. 2235. 2236. 2237. 2238. 2239. 2240. 2241. 2242. 2243. 2244. 2245. 2246. 2247. 2248. 2249. 2250. 2251. 2252. 2253. 2254. 2255. 2256. 2257. 2258. 2259. 2260. 2261. 2262. 2263. 2264. 2265. 2266. 2267. 2268. 2269. 2270. 2271. 2272. 2273. 2274. 2275. 2276. 2277. 2278. 2279. 2280. 2281. 2282. 2283. 2284. 2285. 2286. 2287. 2288. 2289. 2290. 2291. 2292. 2293. 2294. 2295. 2296. 2297. 2298. 2299. 2300. 2301. 2302. 2303. 2304. 2305. 2306. 2307. 2308. 2309. 2310. 2311. 2312. 2313. 2314. 2315. 2316. 2317. 2318. 2319. 2320. 2321. 2322. 2323. 2324. 2325. 2326. 2327. 2328. 2329. 2330. 2331. 2332. 2333. 2334. 2335. 2336. 2337. 2338. 2339. 2340. 2341. 2342. 2343. 2344. 2345. 2346. 2347. 2348. 2349. 2350. 2351. 2352. 2353. 2354. 2355. 2356. 2357. 2358. 2359. 2360. 2361. 2362. 2363. 2364. 2365. 2366. 2367. 2368. 2369. 2370. 2371. 2372. 2373. 2374. 2375. 2376. 2377. 2378. 2379. 2380. 2381. 2382. 2383. 2384. 2385. 2386. 2387. 2388. 2389. 2390. 2391. 2392. 2393. 2394. 2395. 2396. 2397. 2398. 2399. 2400. 2401. 2402. 2403. 2404. 2405. 2406. 2407. 2408. 2409. 2410. 2411. 2412. 2413. 2414. 2415. 2416. 2417. 2418. 2419. 2420. 2421. 2422. 2423. 2424. 2425. 2426. 2427. 2428. 2429. 2430. 2431. 2432. 2433. 2434. 2435. 2436. 2437. 2438. 2439. 2440. 2441. 2442. 2443. 2444. 2445. 2446. 2447. 2448. 2449. 2450. 2451. 2452. 2453. 2454. 2455. 2456. 2457. 2458. 2459. 2460. 2461. 2462. 2463. 2464. 2465. 2466. 2467. 2468. 2469. 2470. 2471. 2472. 2473. 2474. 2475. 2476. 2477. 2478. 2479. 2480. 2481. 2482. 2483. 2484. 2485. 2486. 2487. 2488. 2489. 2490. 2491. 2492. 2493. 2494. 2495. 2496. 2497. 2498. 2499. 2500. 2501. 2502. 2503. 2504. 2505. 2506. 2507. 2508. 2509. 2510. 2511. 2512. 2513. 2514. 2515. 2516. 2517. 2518. 2519. 2520. 2521. 2522. 2523. 2524. 2525. 2526. 2527. 2528. 2529. 2530. 2531. 2532. 2533. 2534. 2535. 2536. 2537. 2538. 2539. 2540. 2541. 2542. 2543. 2544. 2545. 2546. 2547. 2548. 2549. 2550. 2551. 2552. 2553. 2554. 2555. 2556. 2557. 2558. 2559. 2560. 2561. 2562. 2563. 2564. 2565. 2566. 2567. 2568. 2569. 2570. 2571. 2572. 2573. 2574. 2575. 2576. 2577. 2578. 2579. 2580. 2581. 2582. 2583. 2584. 2585. 2586. 2587. 2588. 2589. 2590. 2591. 2592. 2593. 2594. 2595. 2596. 2597. 2598. 2599. 2600. 2601. 2602. 2603. 2604. 2605. 2606. 2607. 2608. 2609. 2610. 2611. 2612. 2613. 2614. 2615. 2616. 2617. 2618. 2619. 2620. 2621. 2622. 2623. 2624. 2625. 2626. 2627. 2628. 2629. 2630. 2631. 2632. 2633. 2634. 2635. 2636. 2637. 2638. 2639. 2640. 2641. 2642. 2643. 2644. 2645. 2646. 2647. 2648. 2649. 2650. 2651. 2652. 2653. 2654. 2655. 2656. 2657. 2658. 2659. 2660. 2661. 2662. 2663. 2664. 2665. 2666. 2667. 2668. 2669. 2670. 2671. 2672. 2673.

[illegible][illegible]

[illegible]

1. 本報告係根據「證券交易法」及「證券報告規則」之規定，由本公司董事會及監察人共同編製，並經會計師查核簽證，其內容如有虛偽、隱匿或重大不實情事，本公司董事會及監察人將依法負法律上之責任。

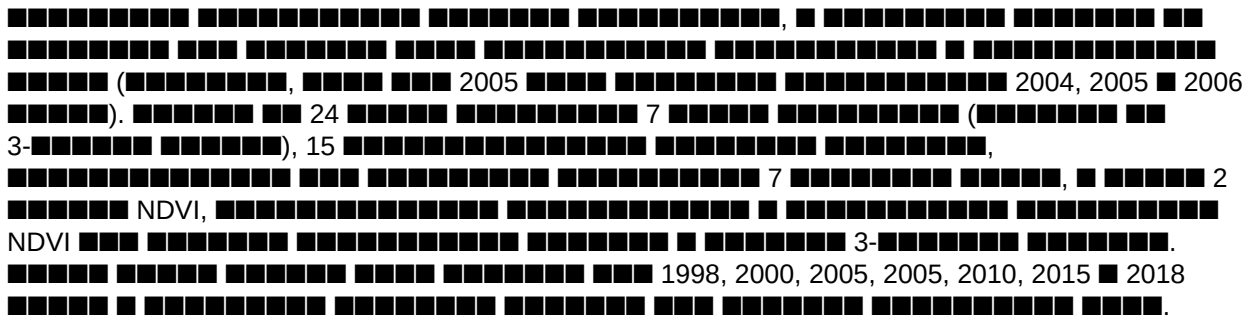
11.3.1 本局將定期檢討及更新本局之「**環境管理計畫**」，以確保本局之環境管理計畫能符合最新之環境管理要求，並能持續改進。

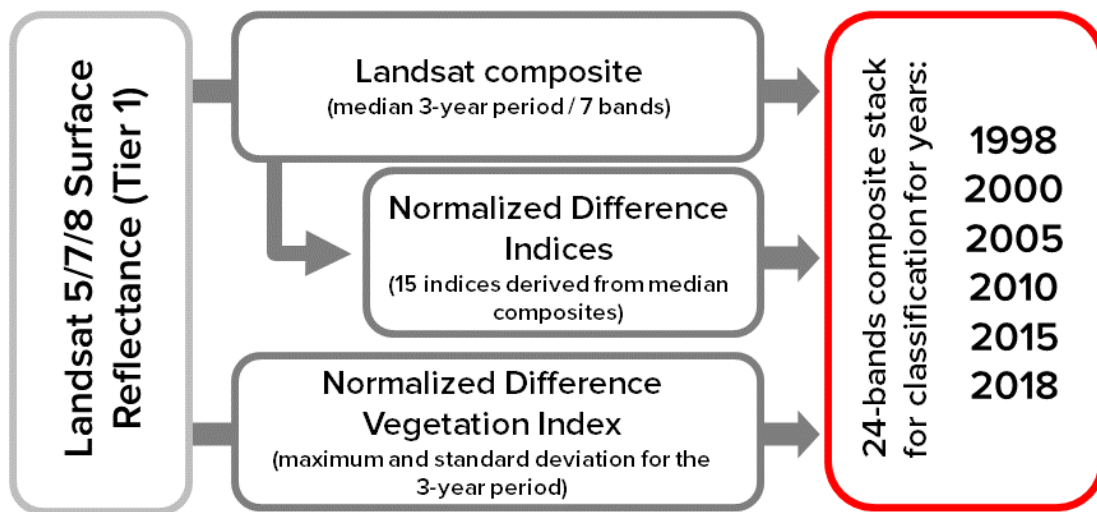
11.3.1 本節規定，凡在中華民國境內，以經營商業為目的，而從事下列各款行為者，均應向主管機關申請登記，並領得營業執照，方得營業：

$$ALCR_{t_1-t_2} = \frac{\ln(\frac{Urb_{t_2}}{Urb_{t_1}})}{t_2 - t_1}$$

$$APGR_{t_1-t_2} = \frac{\ln(\frac{Pop_{t_2}}{Pop_{t_1}})}{t_2 - t_1}$$

«[REDACTED] 3: [REDACTED] [REDACTED] [REDACTED] 846 [REDACTED] [REDACTED] [REDACTED]. [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] GMIS ■ ESA CCI, ■
[REDACTED] [REDACTED] [REDACTED] [REDACTED] 24 [REDACTED], [REDACTED] [REDACTED] Landsat, [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] 1998, 2000, 2005,
2010, 2015 ■ 2018 [REDACTED]».



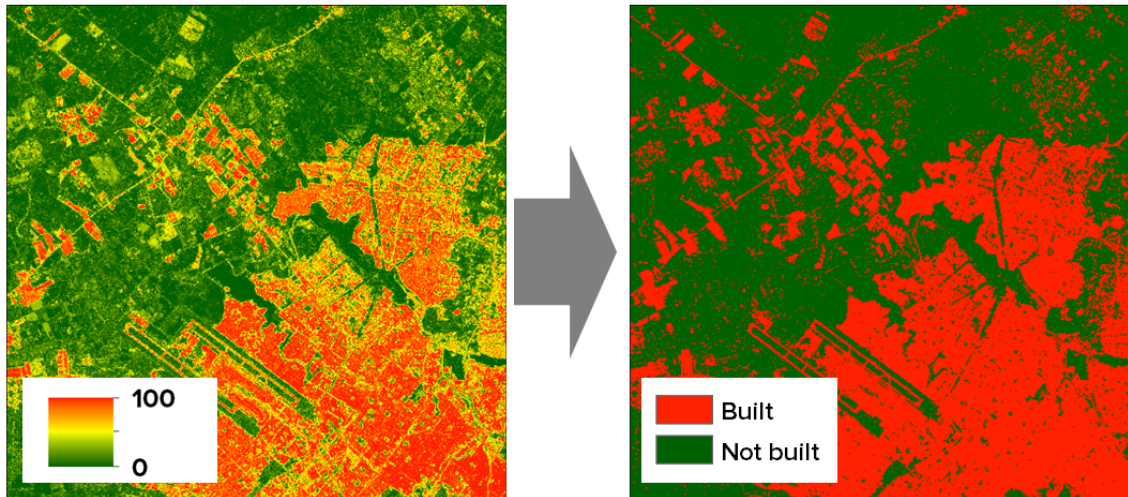


«Figure 4: Generation of the 24-bands composite stack, including the 15 indices derived from the Landsat composite and the NDI and NDVI indices».

The 24-bands composite stack is generated by combining the Landsat composite and the 15 indices derived from the Landsat composite, as well as the NDI and NDVI indices. The Landsat composite is generated by taking the median of the 3-year period (1998-2000) for each of the 7 bands. The 15 indices are derived from the Landsat composite using the following formulas: ISI 2010, GMIS, and the 13 indices derived from the Landsat composite. The NDI and NDVI indices are calculated using the following formulas: $NDI = \frac{NIR - Red}{NIR + Red}$ and $NDVI = \frac{NIR - Red}{NIR + Red}$. The RMSE for the 24-bands composite stack is 9,9 % and 14,4 %, and the accuracy is 100 % (Kappa coefficient = 1,00). The 24-bands composite stack is used for classification of land use and land cover. The classification is performed using the Trends.Earth Urban Mapper tool, which is available at <https://geflanddegradation.users.earthengine.app/view/trendsearth-urban-mapper>.

ISI

The ISI (Index of Surface Irrigation) is a measure of the degree of surface irrigation. It is calculated using the following formula: $ISI = \frac{NIR - Red}{NIR + Red}$. The ISI is used to classify land use and land cover into different categories. The classification is performed using the Trends.Earth Urban Mapper tool, which is available at <https://geflanddegradation.users.earthengine.app/view/trendsearth-urban-mapper>.

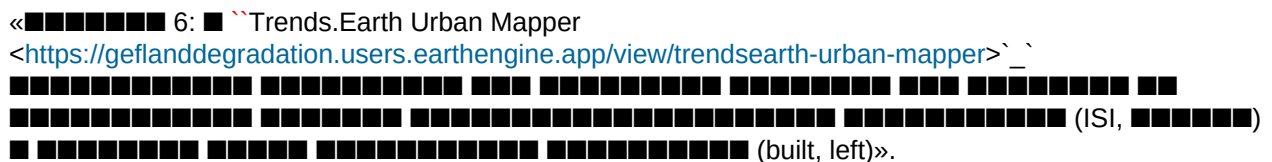


<https://geflanddegradation.users.earthengine.app/view/trendsearth-urban-mapper>

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TRENDS.EARTH ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ 3 ■■■■■■■■■■
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- **Normalized Difference Vegetation Index (NDVI, 0-100):** This index is calculated using the difference between near-infrared and red light reflectance. It is a widely used indicator of vegetation health and density. The index ranges from 0 (no vegetation) to 100 (dense vegetation). The data is derived from the MODIS satellite sensor. The index is calculated using the following formula: $NDVI = \frac{NIR - Red}{NIR + Red}$. The index is then scaled from -1 to 1, where -1 represents water and 1 represents dense vegetation. The index is used to monitor changes in vegetation cover over time and space.
- **Normalized Difference Water Index (NDWI, 0-100):** This index is calculated using the difference between near-infrared and short-wave infrared light reflectance. It is a widely used indicator of water content in vegetation. The index ranges from 0 (no water) to 100 (high water content). The data is derived from the MODIS satellite sensor. The index is calculated using the following formula: $NDWI = \frac{NIR - SWIR}{NIR + SWIR}$. The index is then scaled from -1 to 1, where -1 represents water and 1 represents dense vegetation. The index is used to monitor changes in water content over time and space.

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THE UNIVERSITY OF CHICAGO

■■■■■■■■■■ ■■■■■■■■■■, ■■■■■■■■■■ ■ ■■■■■■■■ ■■■■■■■■ (ISI, NTL ■ WFR),
 ■■■■■■■■■■ ■ ■■■■■■■■ ■■ ■■■■■■■■■■ ■■■■■■ 1998, 2000, 2005, 2010, 2015 ■ 2018
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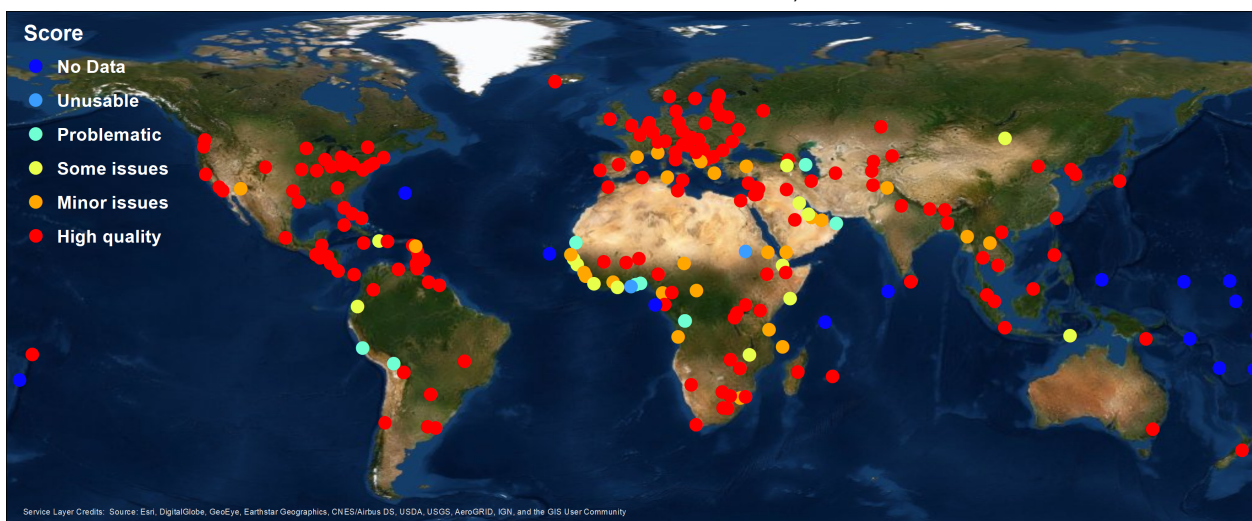
- [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED], [REDACTED] 50 % [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]. [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED]. [REDACTED] [REDACTED] [REDACTED] 50 %
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED], [REDACTED] [REDACTED] [REDACTED], [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED]. [REDACTED] [REDACTED] [REDACTED], [REDACTED], [REDACTED] [REDACTED] [REDACTED] [REDACTED], [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
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[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED], [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]. [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED]

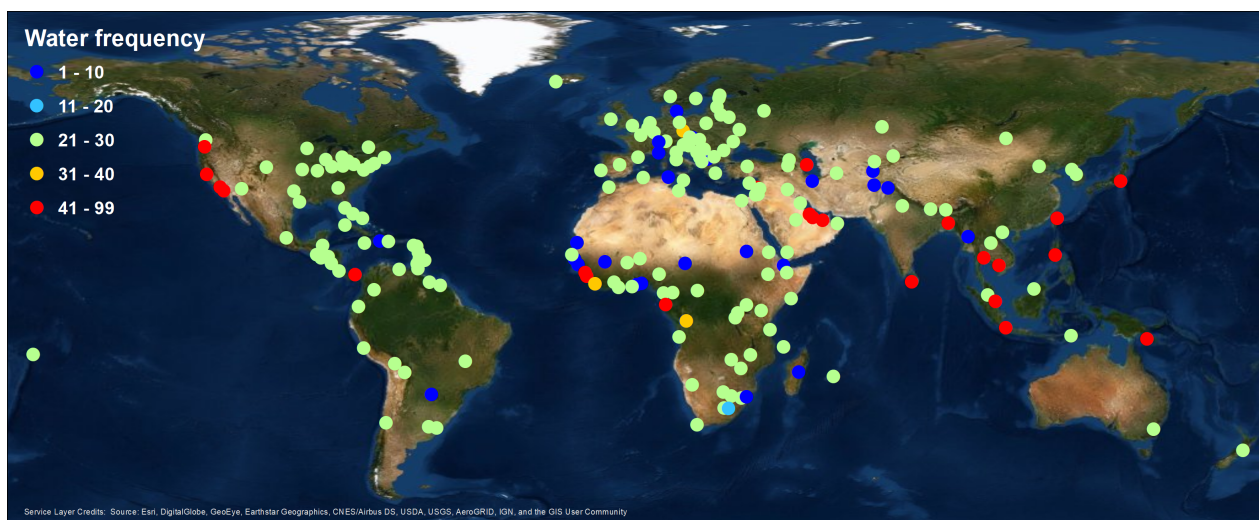
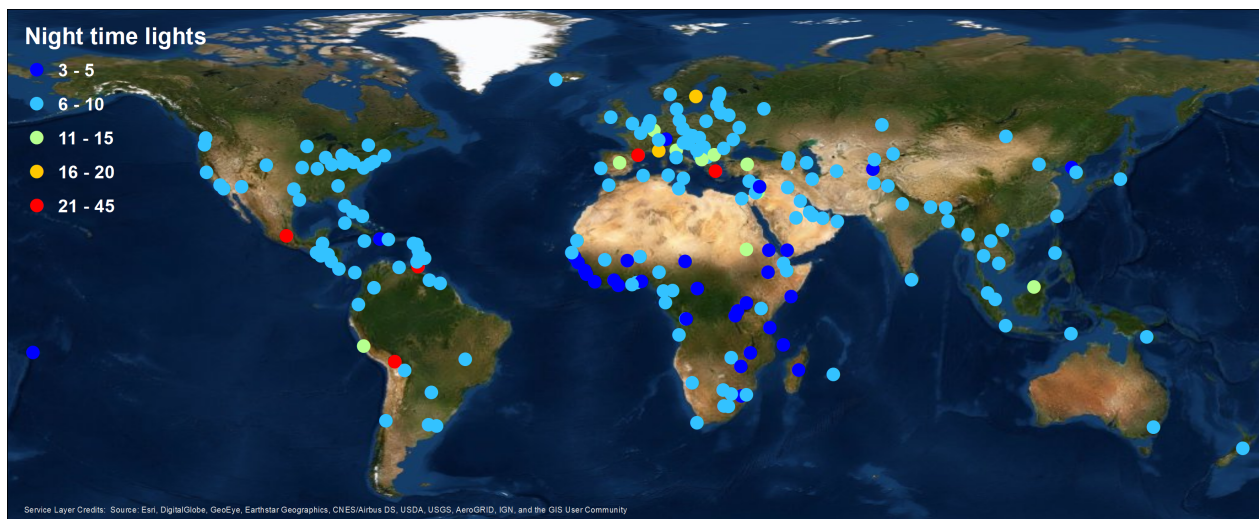
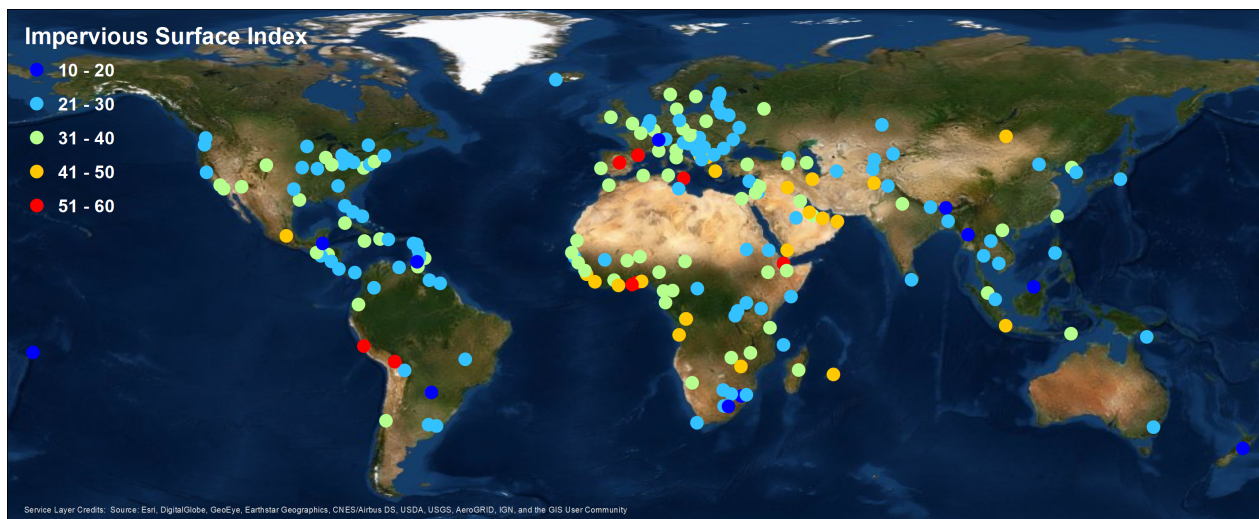
11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

1. **Indikator:** **Indikator, yang menunjukkan seberapa banyak hutan yang rusak atau terdegradasi.**
Indikator ini menunjukkan bahwa hutan yang rusak atau terdegradasi adalah 6,2 % dari total hutan.
2. **Indikator:** **Indikator, yang menunjukkan seberapa banyak hutan yang rusak atau terdegradasi, dan ini menunjukkan bahwa hutan yang rusak atau terdegradasi adalah 0,9 % dari total hutan.**

■■■■■■■■■■

3. **Geotagging:** Geotagging is a process of adding location information to digital media, such as photos, videos, and documents. This information is typically in the form of latitude and longitude coordinates. Geotagging can be done manually or automatically using software. The location information can be used for a variety of purposes, such as tracking movement, identifying locations, and analyzing data. In 11.3.1, the geotagging process was used to analyze the location of the 4,0 % of the data.
4. **Geotagging:** Geotagging is a process of adding location information to digital media, such as photos, videos, and documents. This information is typically in the form of latitude and longitude coordinates. Geotagging can be done manually or automatically using software. The location information can be used for a variety of purposes, such as tracking movement, identifying locations, and analyzing data. In 11.3.1, the geotagging process was used to analyze the location of the 6,2 % of the data.
5. **Geotagging:** Geotagging is a process of adding location information to digital media, such as photos, videos, and documents. This information is typically in the form of latitude and longitude coordinates. Geotagging can be done manually or automatically using software. The location information can be used for a variety of purposes, such as tracking movement, identifying locations, and analyzing data. In 11.3.1, the geotagging process was used to analyze the location of the 12,5 % of the data.
6. **Geotagging:** Geotagging is a process of adding location information to digital media, such as photos, videos, and documents. This information is typically in the form of latitude and longitude coordinates. Geotagging can be done manually or automatically using software. The location information can be used for a variety of purposes, such as tracking movement, identifying locations, and analyzing data. In 11.3.1, the geotagging process was used to analyze the location of the 70,1 % of the data.

[illegible]

[illegible]

224

ISI = 30, NTL = 10, WFR = 25.

Trends.Earth Urban Mapper

QGIS,

[illegible]

1. ■■■■■■: > 50 % ■■■■■■ ■■■■■■ 500 ■.

2. ■■■■■■■■: 25-50 % ■■■■■■■■ ■■■■■■■■ 500 ■.

3. ■■■■■■■■■■ ■■■■■■■■■■: < 25 % ■■■■■■■■■■ ■■■■■■■■■■ 500 ■.

4. $\frac{1}{2} \leq \frac{1}{2} \leq \frac{1}{2}$: $\frac{1}{2} \leq \frac{1}{2} \leq \frac{1}{2} < 100$ $\frac{1}{2} \leq \frac{1}{2} \leq \frac{1}{2}$.
5. $\frac{1}{2} \leq \frac{1}{2} \leq \frac{1}{2}$: $\frac{1}{2} \leq \frac{1}{2} \leq \frac{1}{2}$, $\frac{1}{2} \leq \frac{1}{2} \leq \frac{1}{2}$ $\frac{1}{2} \leq \frac{1}{2} \leq \frac{1}{2}$.
6. $\frac{1}{2} \leq \frac{1}{2} \leq \frac{1}{2}$: $\frac{1}{2} \leq \frac{1}{2} \leq \frac{1}{2}$ $\frac{1}{2} \leq \frac{1}{2} \leq \frac{1}{2}$.

[illegible]

- [illegible]



Figure 1 ■ The number of U.S. children under age 6 who are in child care or preschool by race and ethnicity, 2000-2015

Note

[REDACTED]: [REDACTED]-[REDACTED] (2019) [REDACTED] [REDACTED] 11.3.1 [REDACTED] [REDACTED]:

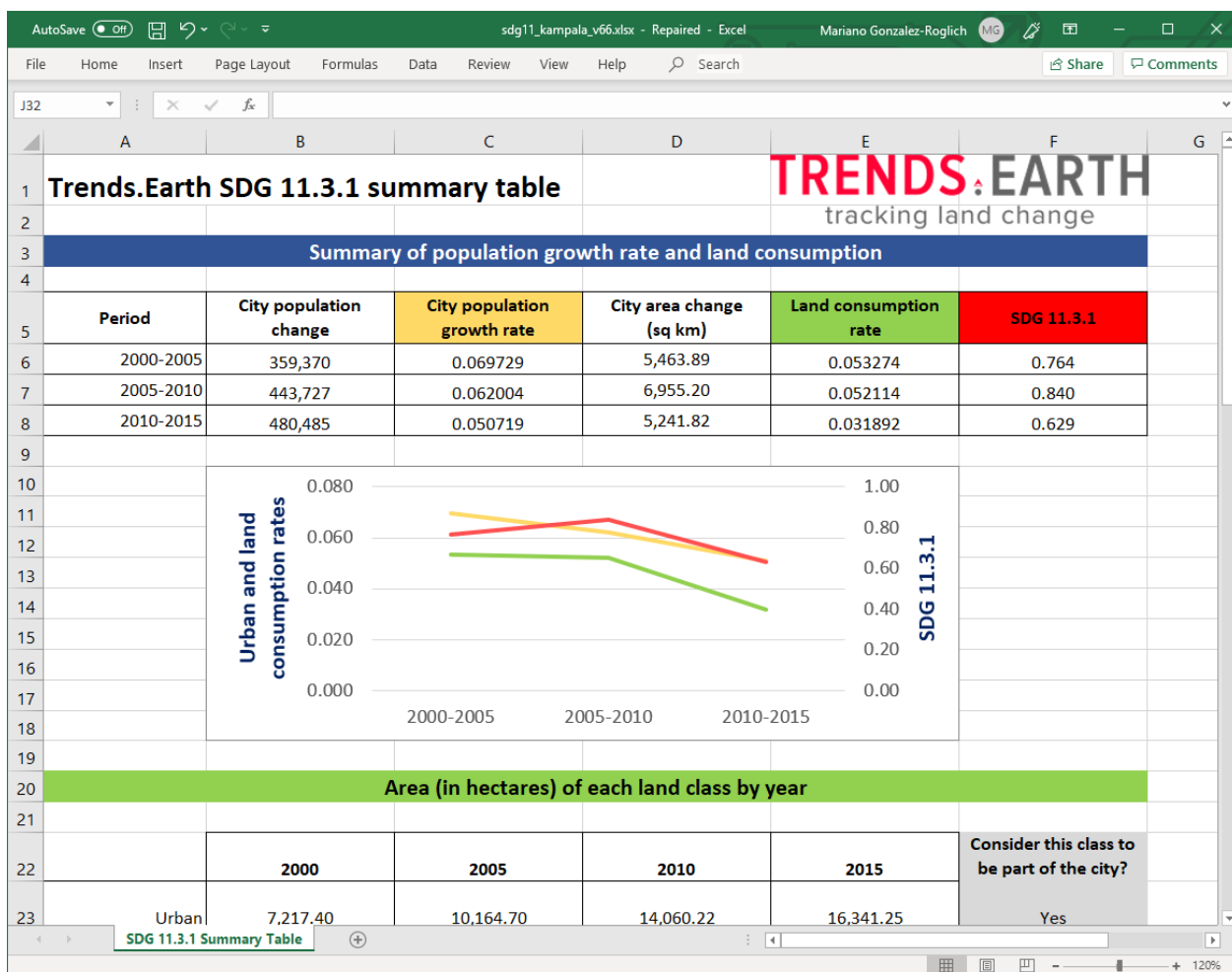
[REDACTED] [REDACTED]. [REDACTED] [REDACTED] [REDACTED]

[REDACTED] ([REDACTED]-[REDACTED]), [REDACTED].

■■■■■■■■ ■ Trends.Earth

11.3.1

41



«■■■■■■■ 11: ■■■■■■ ■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■ SDG 11.3.1 ■
▲TRENDS.EARTH ■■■■■■■■ ■■■■■■■■ ■■■■■■■■, ■■■■■■■■ ■■■■■■■■, ■■■■■■■■ ■■■■■■■■ SDG 11.3.1 ■■■■■■■■ ■■■■■■■■ ■■■■■■■■».

TRENDS.EARTH

■■■■■■■■, ■., 2001. ■■■■■■■■■■ ■■■■. Mach. Learn. 45, 5-32.
<https://doi.org/10.1023/a:1010933404324>

[REDACTED], J. [REDACTED], M. [REDACTED], S. [REDACTED], A. [REDACTED],
 [REDACTED], [REDACTED]-[REDACTED], & [REDACTED]. 2017. [REDACTED] [REDACTED]
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(SEDAC). [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] -
[REDACTED] [REDACTED]. <https://doi.org/10.7927/H4HX19NJ>.

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<https://doi.org/10.1093/biosci/bix014>

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■■ ■■■■■■■■■■■■■■ ■■■■■■■■■■■■■■. Nature 540, 418-422 (2016).
<https://doi.org/10.1038/nature20584>.

■■■■. 2019. ■■■■■■ ■■■■■■ ■■■■■■/■■■■■■ ■■■■■■■■ VIIRS ■■■■■■ 1.
■■■■■■■ ■■■■■: https://developers.google.com/earth-engine/datasets/catalog/NOAA_VIIRS_DNB_MONTHLY_V1_VCMCFG

■■■-■■■■■■■■ (2019) ■■■■■■ 3: ■■■■■■■■■■ ■■■■■■. ■■■■■■■■ 05.10.2019 ■■: https://unhabitat.org/wp-content/uploads/2019/02/Indicator-11.3.1-Training-Module_Land-Consumption_Jan-2019.pdf.

2000 年，世界人口中 10% 生活在城市，而到 2020 年，这一比例将增加到 50%。随着城市人口的增加，城市基础设施的需求也在不断增加。城市基础设施是指为城市居民提供基本服务的设施，包括供水、排水、电力、交通、通信等。城市基础设施的建设和维护需要大量的资金投入。根据世界银行（World Bank）的数据，2001 年至 2020 年，全球城市基础设施投资总额将达到 165 万亿美元（USD & WRI, 2022）。城市基础设施的建设和维护需要大量的资金投入。根据世界银行（World Bank）的数据，2001 年至 2020 年，全球城市基础设施投资总额将达到 165 万亿美元（USD & WRI, 2022）。城市基础设施的建设和维护需要大量的资金投入。根据世界银行（World Bank）的数据，2001 年至 2020 年，全球城市基础设施投资总额将达到 165 万亿美元（USD & WRI, 2022）。

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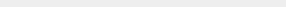
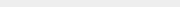
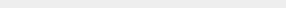
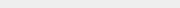
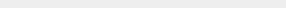
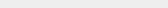
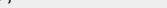
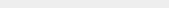
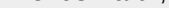
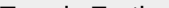
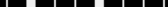
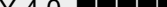
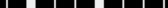
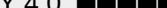
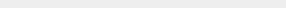
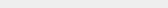
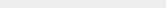
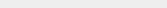
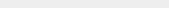
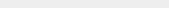
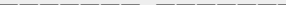
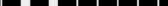
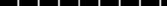
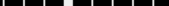
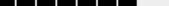
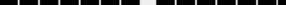
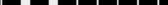
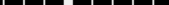
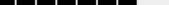
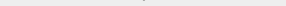
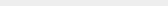
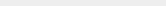
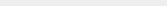
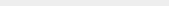
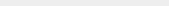
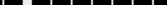
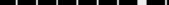
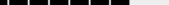
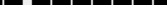
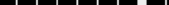
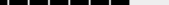
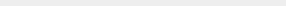
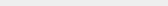
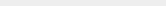
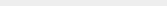
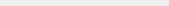
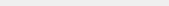
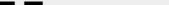
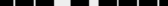
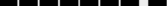
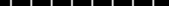
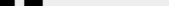
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Note

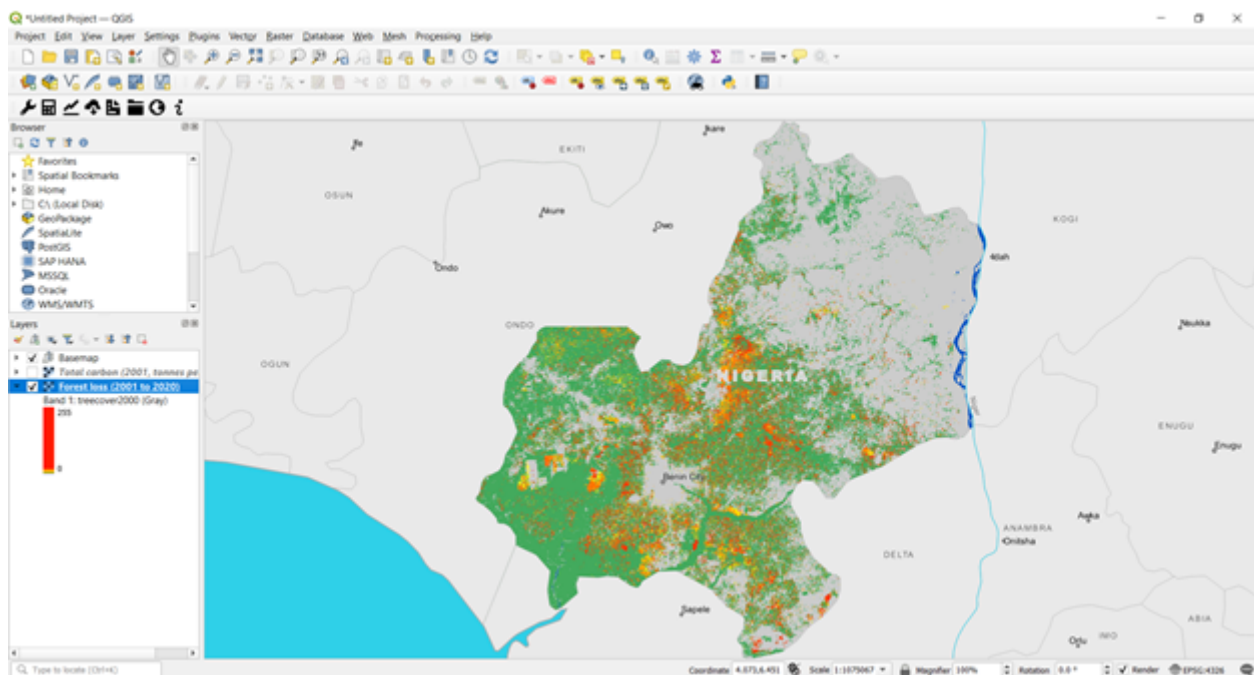
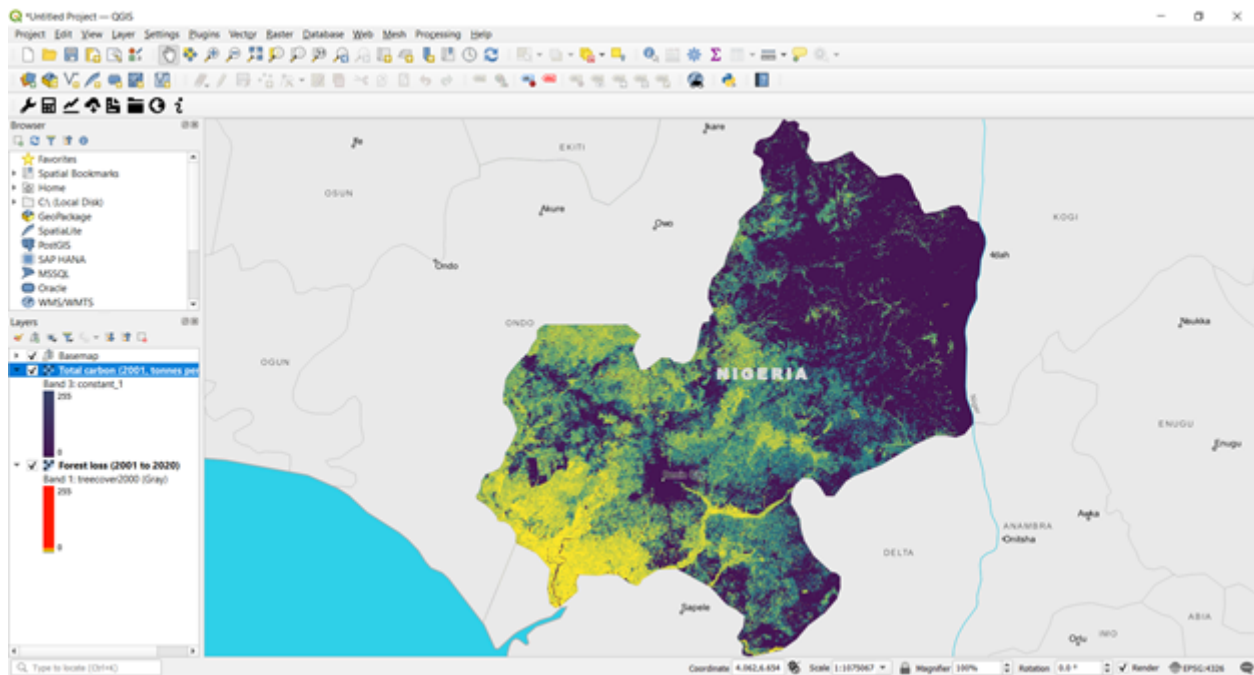
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Note


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 CC BY 4.0.  Trends.Earth
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Trends.Earth 是一个开源的、基于云的、可扩展的平台，用于处理和分析大规模的气候数据。它支持多种数据源，包括卫星遥感、地面观测和模型输出。该平台提供了丰富的工具和功能，可以帮助研究人员进行气候数据的可视化、分析和建模。

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- 47

THE UNIVERSITY OF CHICAGO

В соответствии с оценкой ГИСКОМ (Griscom et al., 2017), для достижения цели по сокращению выбросов парниковых газов, необходимых для ограничения повышения температуры на 2 °C, необходимо сократить выбросы парниковых газов на 400 млрд тонн CO₂ к 2100 году (Griscom et al., 2017), что требует сокращения выбросов парниковых газов на 400 млрд тонн CO₂ к 2100 году (Griscom et al., 2017). В соответствии с оценкой ГИСКОМ (Griscom et al., 2017), для достижения цели по сокращению выбросов парниковых газов, необходимых для ограничения повышения температуры на 2 °C, необходимо сократить выбросы парниковых газов на 400 млрд тонн CO₂ к 2100 году (Griscom et al., 2017).

The company's revenue is primarily derived from its subscription-based software, which is sold to a wide range of customers, including government agencies, private industry, and academic institutions. The company's revenue is also derived from its consulting services, which are provided to its customers. The company's revenue is reported in U.S. dollars.

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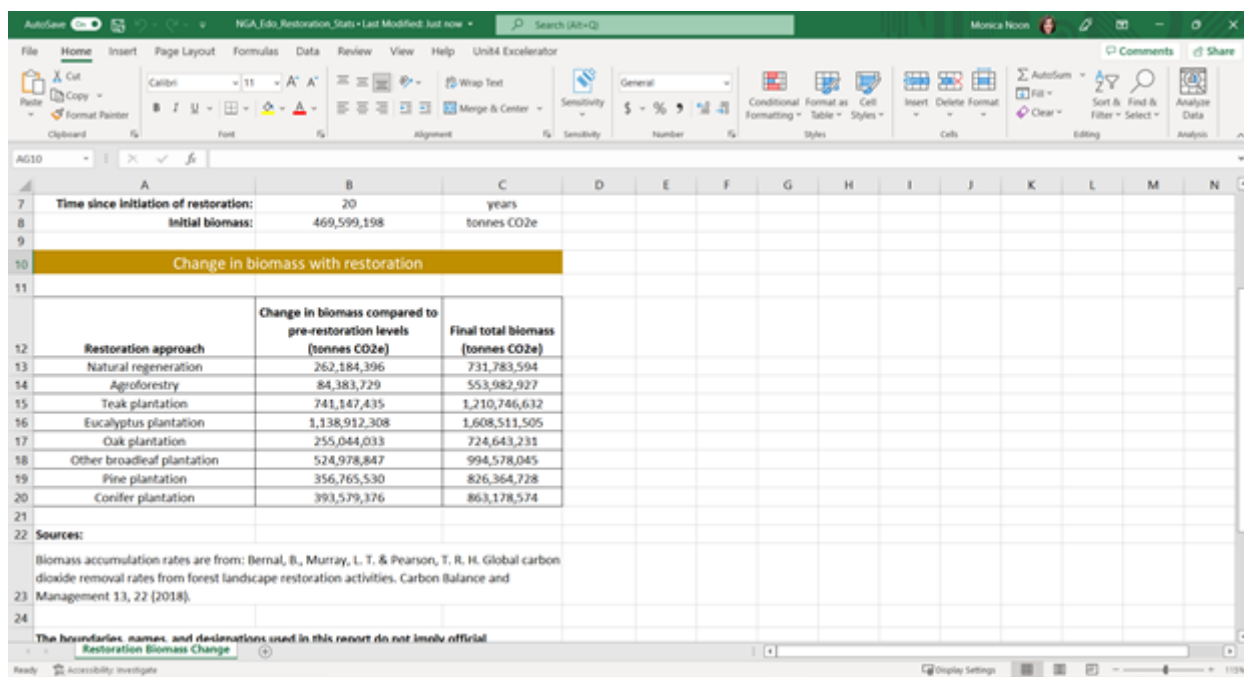
Trends.Earth potential carbon removals from restoration summary table

Summary of chosen area of interest

| | Value | Units |
|---------------------------------------|-------------|-------------|
| Total area of polygon: | 1,976,949 | hectares |
| Time since initiation of restoration: | 20 | years |
| Initial biomass: | 469,599,198 | tonnes CO2e |

Change in biomass with restoration

| Restoration approach | Change in biomass compared to pre-restoration levels (tonnes CO2e) | Final total biomass (tonnes CO2e) |
|----------------------------|--|-----------------------------------|
| Natural regeneration | 262,184,396 | 731,783,594 |
| Agroforestry | 84,383,729 | 553,982,927 |
| Teak plantation | 741,147,435 | 1,210,746,632 |
| Eucalyptus plantation | 1,138,912,308 | 1,608,511,505 |
| Oak plantation | 255,044,033 | 724,643,231 |
| Other broadleaf plantation | 524,978,847 | 994,578,045 |

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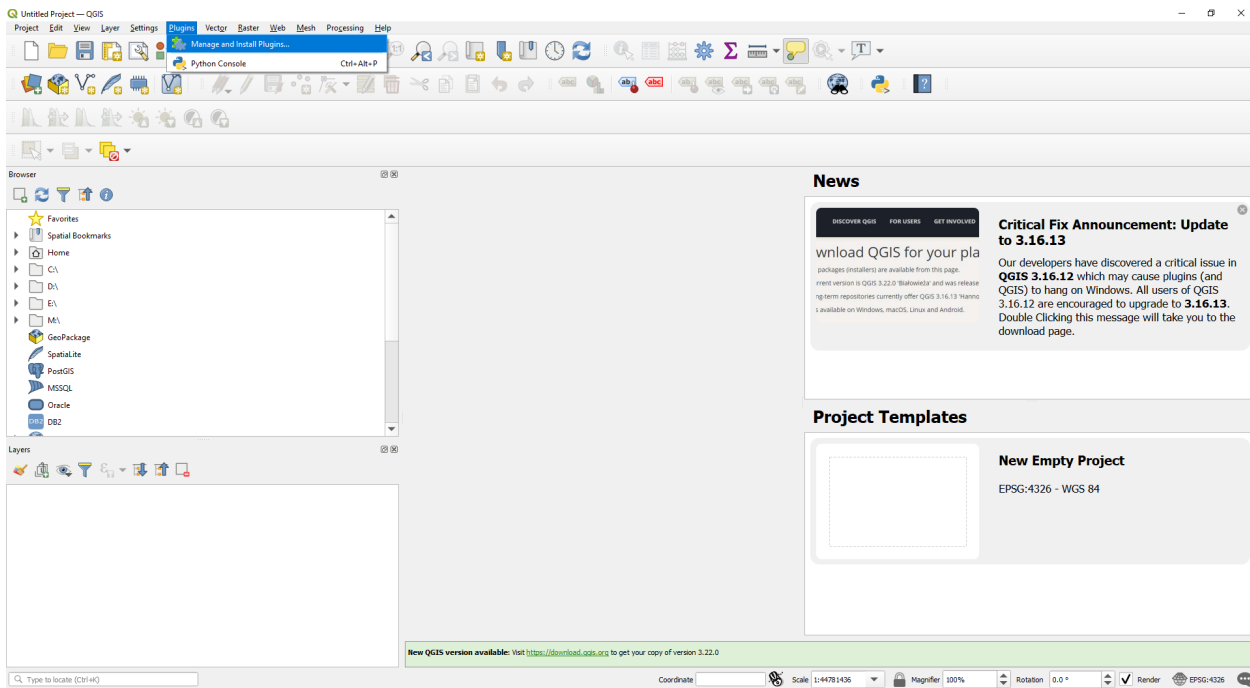
Bernal, B., Murray, L. T. & Pearson, T. R. H. **Carbon balance and management** 13, 22 (2018).

Bunting P, Rosenqvist A, Lucas RM, Rebelo L-M, Hilarides L, Thomas N, Hardy A, Itoh T, Shimada M, Finlayson CM. **Quantifying the impact of land use change on the carbon sequestration potential of a tropical forest: A case study from the Amazon basin** — **Remote Sensing of the Environment** 2010; 114(10):2169-2181. Remote Sensing. 2018; 10(10):1669. <https://doi.org/10.3390/rs10101669>

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Santoro, M., Beaudoin, A., Beer, C., Cartus, O., Fransson, J.E.S., Hall, R.J., Pathe, C., Schmullius, C., Schepaschenko, D., Shvidenko, A., Thurner, M. ■ Wegmüller, U., 2015. ■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■: ■■■■■■■■■■ ■■■■■■ ■■■■■■ ■■ 2010 ■■■, ■■■■■■■■■■ ■■ Envisat ASAR. Remote Sensing of Environment, 168. ■■■. 316–334.

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unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf.



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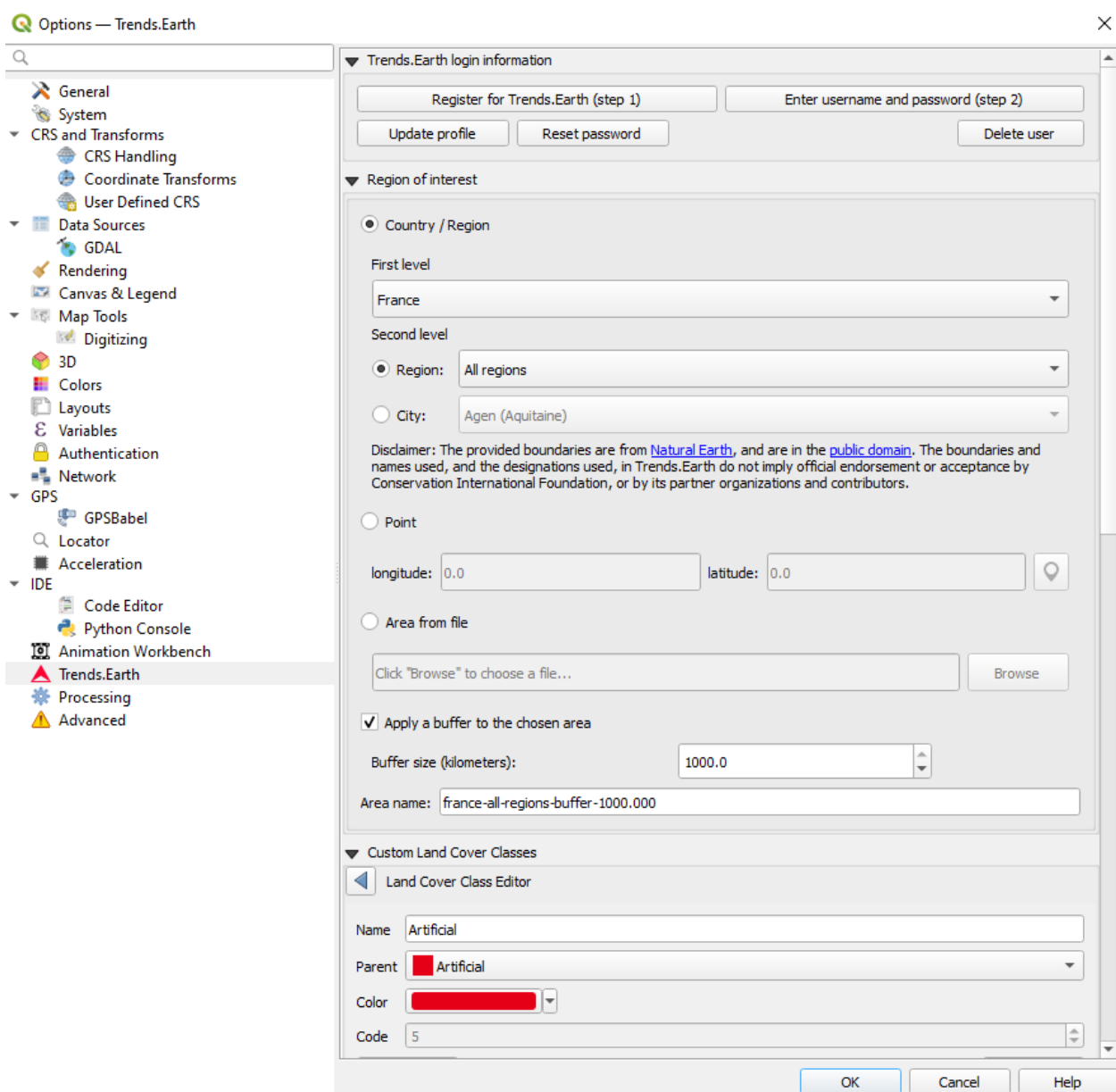
[CONTRIBUTING](#)
[INSTALLATION](#)
[USAGE](#)
[TROUBLESHOOTING](#)
[FAQ](#)
[README](#)
[TRENDS.EARTH](#)

1. **Тенденции изменения климата в Арктике.** В Арктике наблюдается значительное потепление, что приводит к таянию вечной мерзлоты, сокращению ледового покрова и изменению экосистем. Эти изменения имеют глобальные последствия, влияющие на уровень моря и климат в целом.

2. ■■■■■■■■ ■■■■■■ ■■. ■■■■■■, ■■■■, ■■■■■■■■■■■■■■ ■ ■■■■■■ ■■■■■■■■■■■■■■.

3. ■■■■■■ ■■, ■ ■■ ■■■■■■ ■■■■■■■■ ■ ■■■, ■■■ ■■■ ■■■■■■■■■■■■
■■■■■■■■■■■■■■■■■■.

4. After registering, you will receive an email from api@trends.earth with your password. If you don't see the email in your inbox after 15-20 seconds, please check your spam folder in case the email was sent

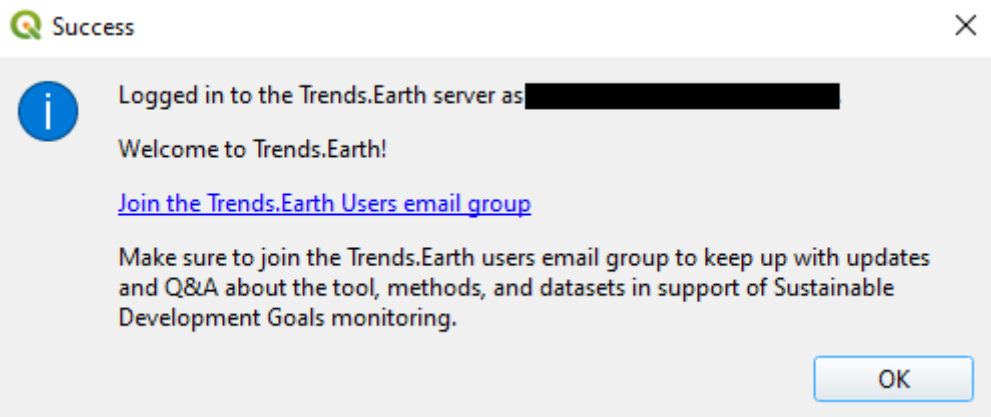
[illegible]

1. Click on Register for Trends.Earth to create an account. Provide the required information and click **OK**. You will receive an email.

[illegible]

2. Once you have received confirmation that your account has been created, click on **Enter username and password**. Provide your credentials and click **OK**.

3. ■■■■ ■■■■■■■■■■ ■■■■■■ ■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■:

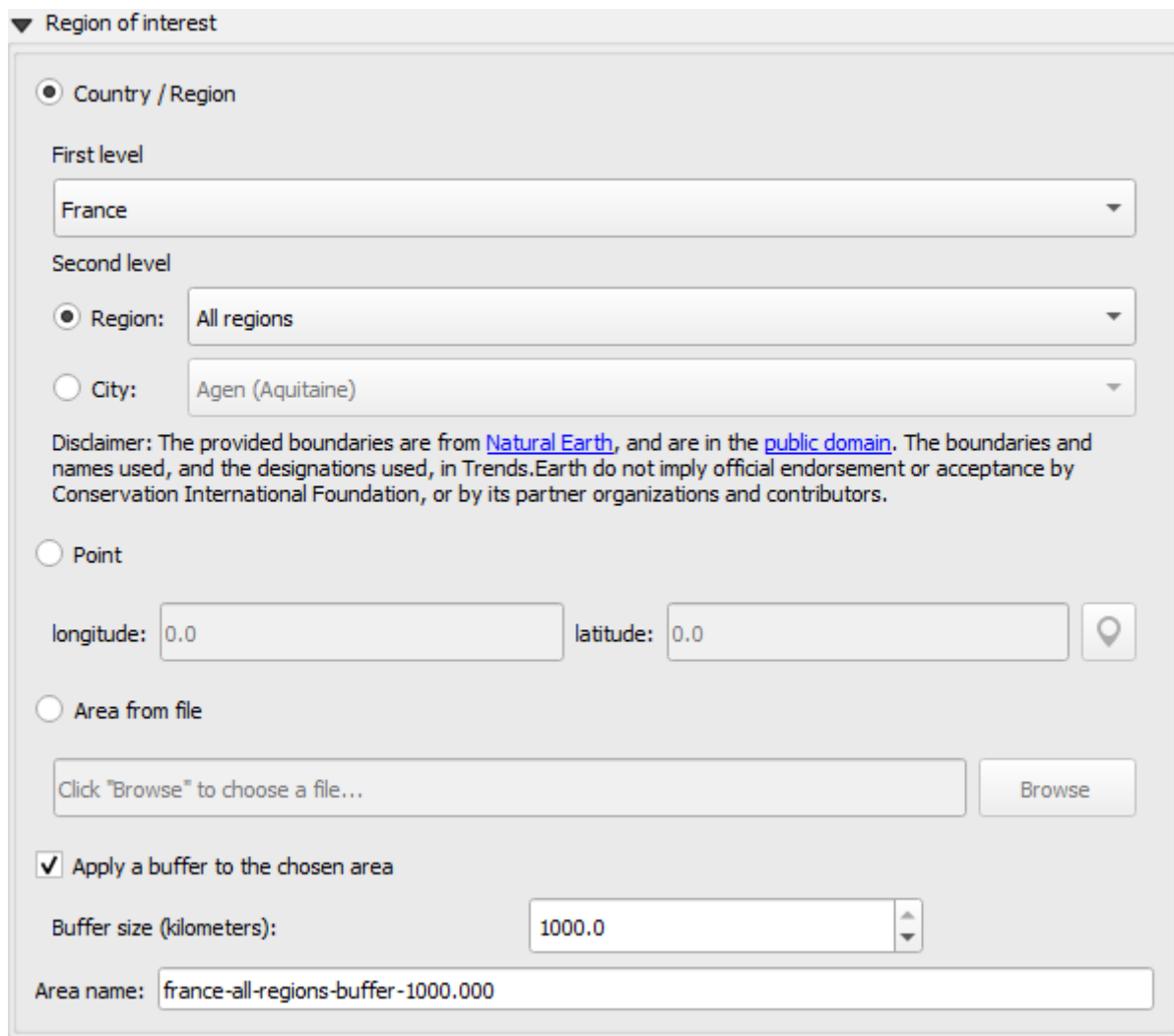


Trends.Earth Trends.Earth.

XXXXXXXXXXXX XXXXXX XXXXX XXXXX X XXXXXXXXXXXXXXXXXXXX XXXXXXX XXX

XXXXX XXXXXXXXXXX:

- 58



 geoBoundaries, Trends.Earth,
 CC BY 4.0. Trends.Earth
 is a registered trademark of the International Geosphere-Biosphere Programme (IGBP).
 The IGBP is a global research programme that focuses on the interactions between
 the physical, chemical, and biological components of the Earth system.
 The IGBP is a member of the International Council for Science (ICSU).
 The IGBP is a member of the International Geosphere-Biosphere Programme (IGBP).
 The IGBP is a member of the International Geosphere-Biosphere Programme (IGBP).

59

██████████ ██████████

▼ Custom Land Cover Classes

Land Cover Class Editor

Name

Parent

Color ▼

Code

Page 10 of 10

_____ «_____».

▼ Reports

Template search path

Common Report Information

Organization logo

Organization name

Footer text

Disclaimer text

☐ Log warnings in output directory

www.ck12.org

```
[base_data_directory]/reports/templates, [redacted] [redacted] [redacted] [redacted],
[redacted] [redacted] [redacted] [redacted]. [redacted] [redacted] [redacted] [redacted].
```

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[illegible]

[illegible]

▼ Advanced

Base data directory

☒ Filter remote jobs according to local base data directory

☐ Enable debug mode (saves detailed logging information)

☒ Download remotely-generated datasets automatically

☒ Poll remote processing server periodically

Polling frequency (seconds)

☐ Use binaries for faster processing

Binaries **are not** loaded.

[illegible][illegible]

██████████ ██████████, ████████:

- [illegible]

■■■■■■■■■■ ■■■■■■ ■ LandPKS

- **□ □ □ □ □ □ □ □ □ □ □ □**



- 
- A screenshot of the Trends.Earth settings menu. The menu is open, showing the 'Trends.Earth' logo and the 'Settings' option with a wrench icon.

-

[illegible]

- Presets

Select preset: UNCCD Reporting (2026 reporting cycle - Default Data, Trends.Earth) (Built-in)

Apply Preset
Save Current as Preset
Delete Preset
Export...
Import...

Land productivity data

☒ Trends.Earth land productivity dynamics
☐ FAO-WOCAT
☐ Pre-calculated land productivity dynamics (from JRC)

Baseline period

☒ Use the same time period across all indicators:

Initial year

Final year

2001

2015

☐ Allow time period to vary by indicator:

Initial year

Final year

Productivity

2003

2015

Land cover

2001

2015

Soil organic carbon

2001

2015

Show Timeline

☒ Include reporting period (for comparison to baseline)

Reporting period #1

☒ Use the same time period across all indicators:

Initial year

Final year

2015

2019

☐ Allow time period to vary by indicator:

Initial year

Final year

Productivity

2007

2019

Land cover

2015

2019

Soil organic carbon

2015

2019

Add reporting period

Calculate all SDG 15.3.1 sub-indicators in a single step

This algorithm enables the simultaneous calculation of the three SDG 15.3.1 sub-indicators (Productivity, Land Cover and Soil Organic Carbon) in a single step. This is done using the remote Trends.Earth datasets described in each of the individual sub-indicator's sections.

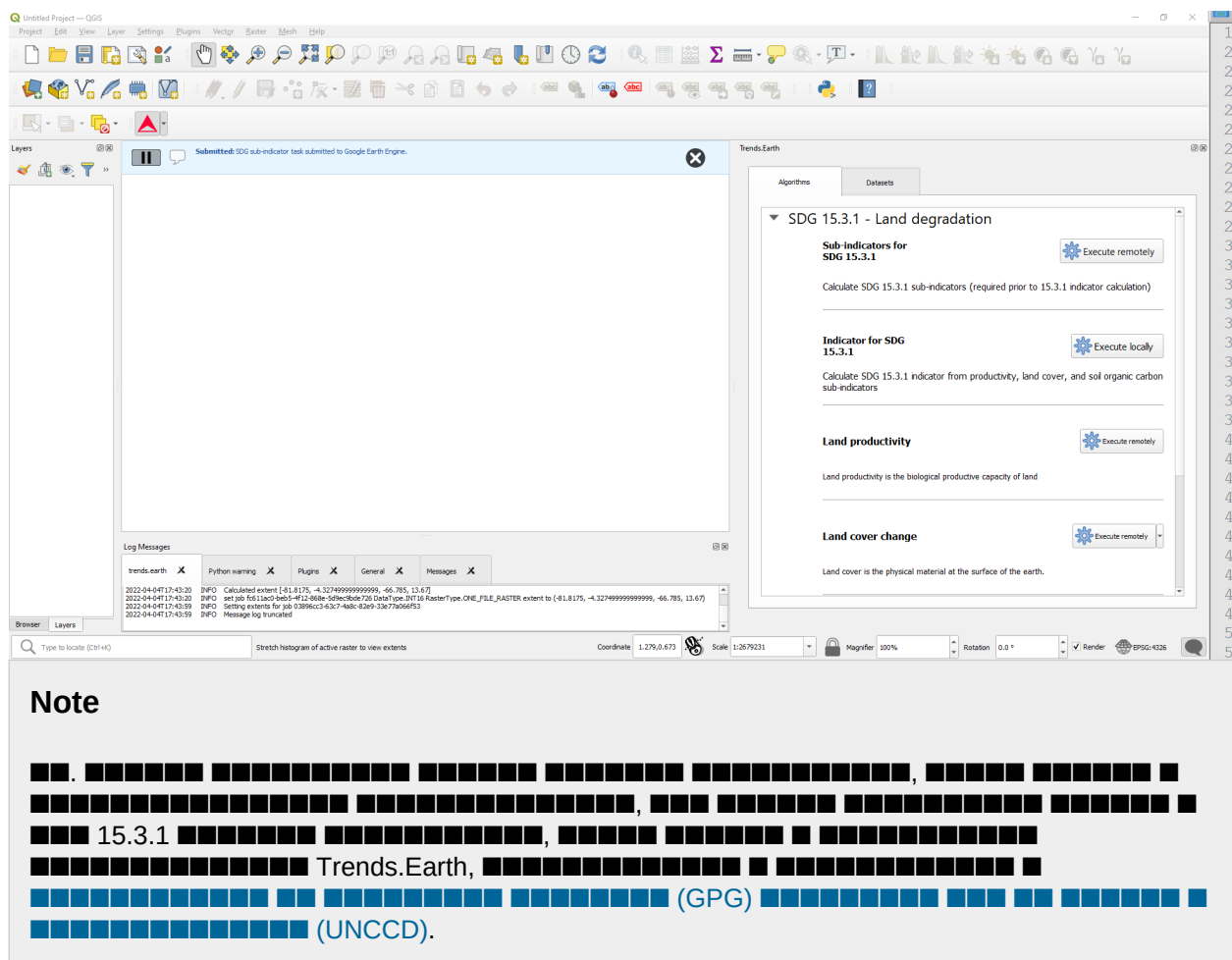
[More information](#)

Schedule remote execution

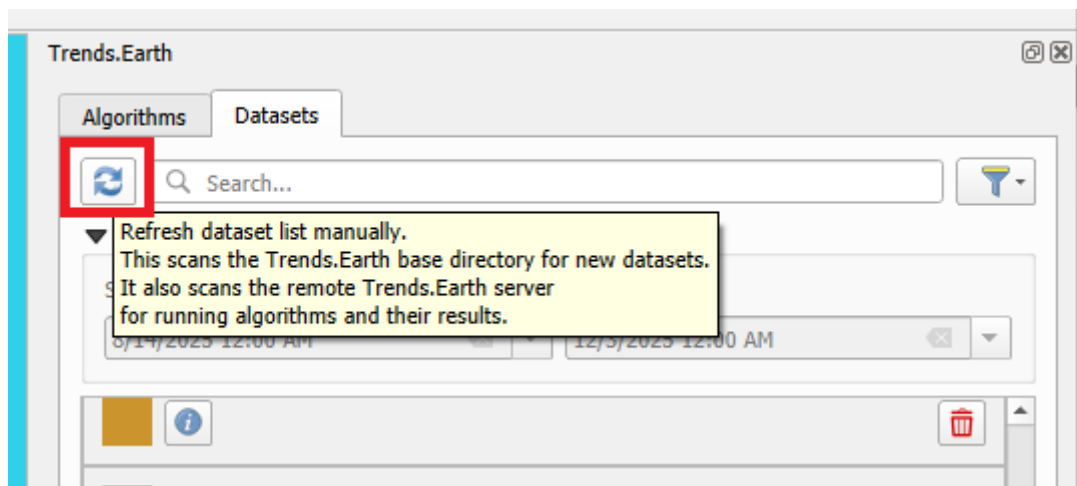
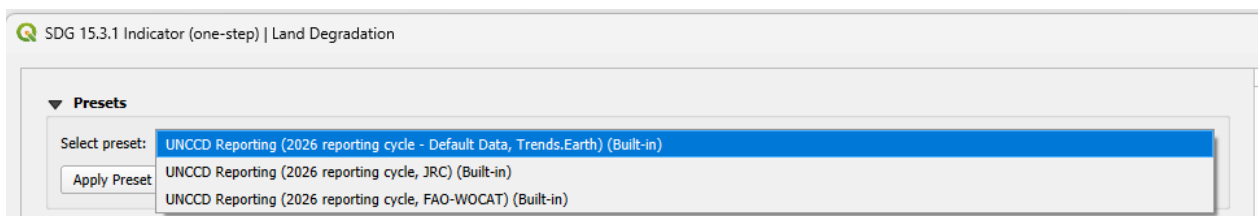
Cancel

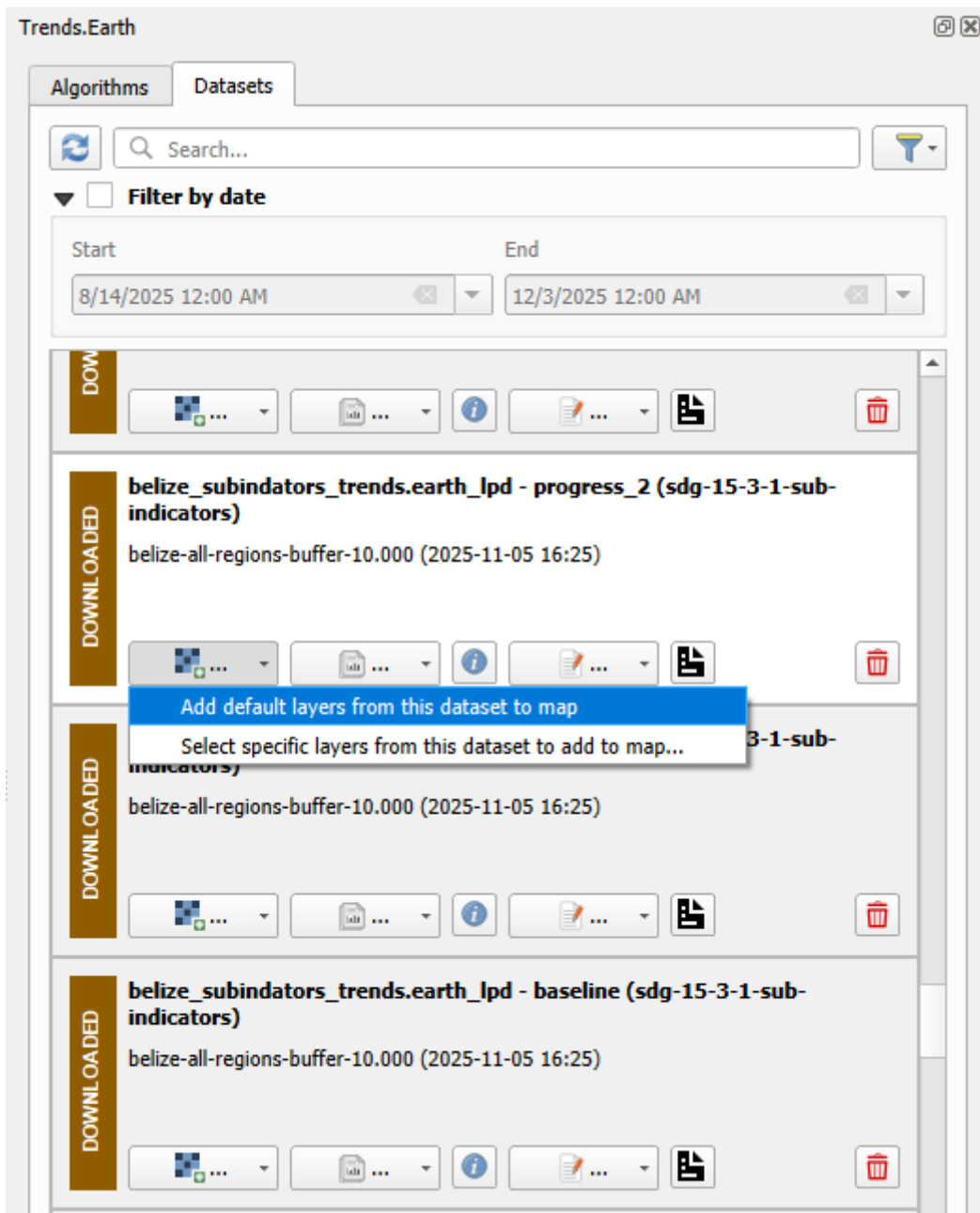
Help

- 65

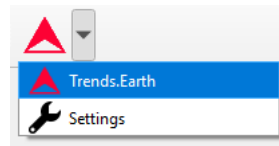
[illegible][illegible]

- [illegible]

[illegible]

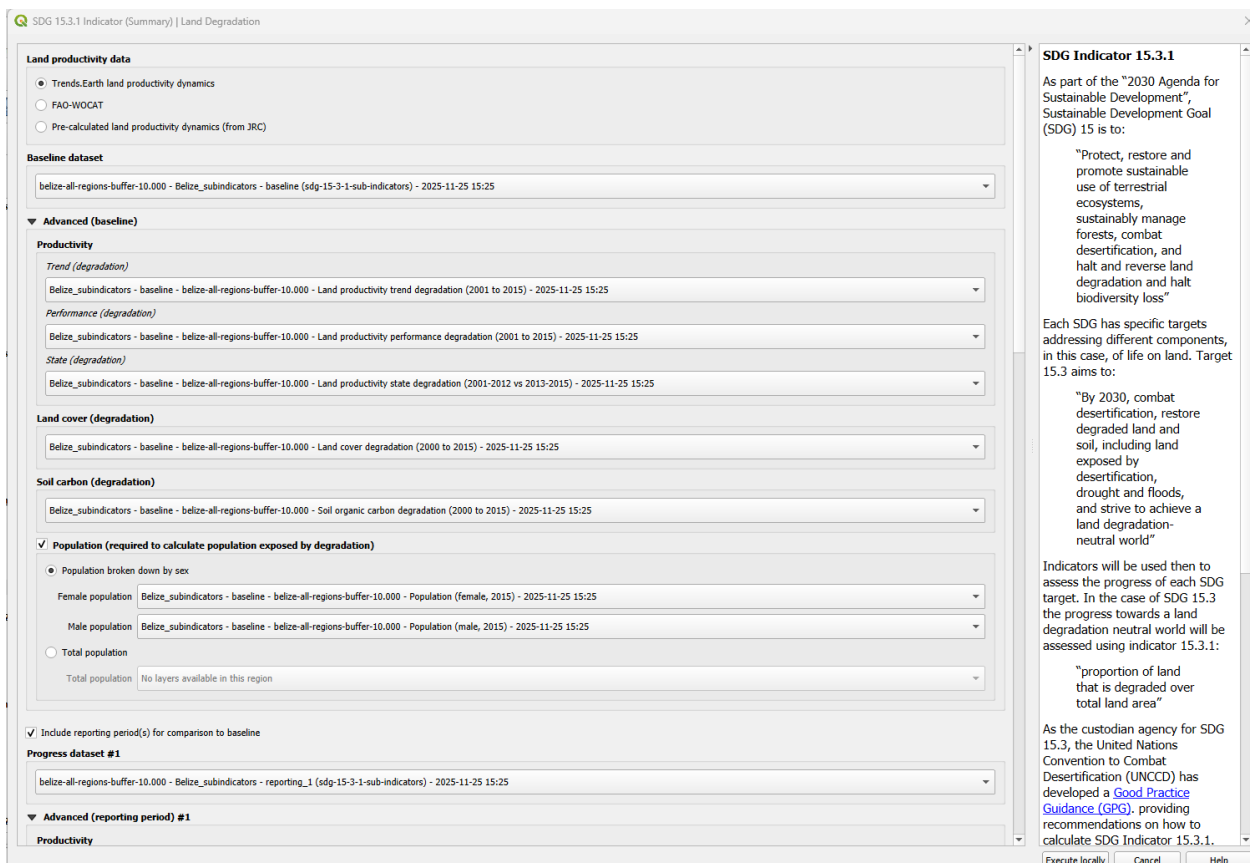


- 68



Note

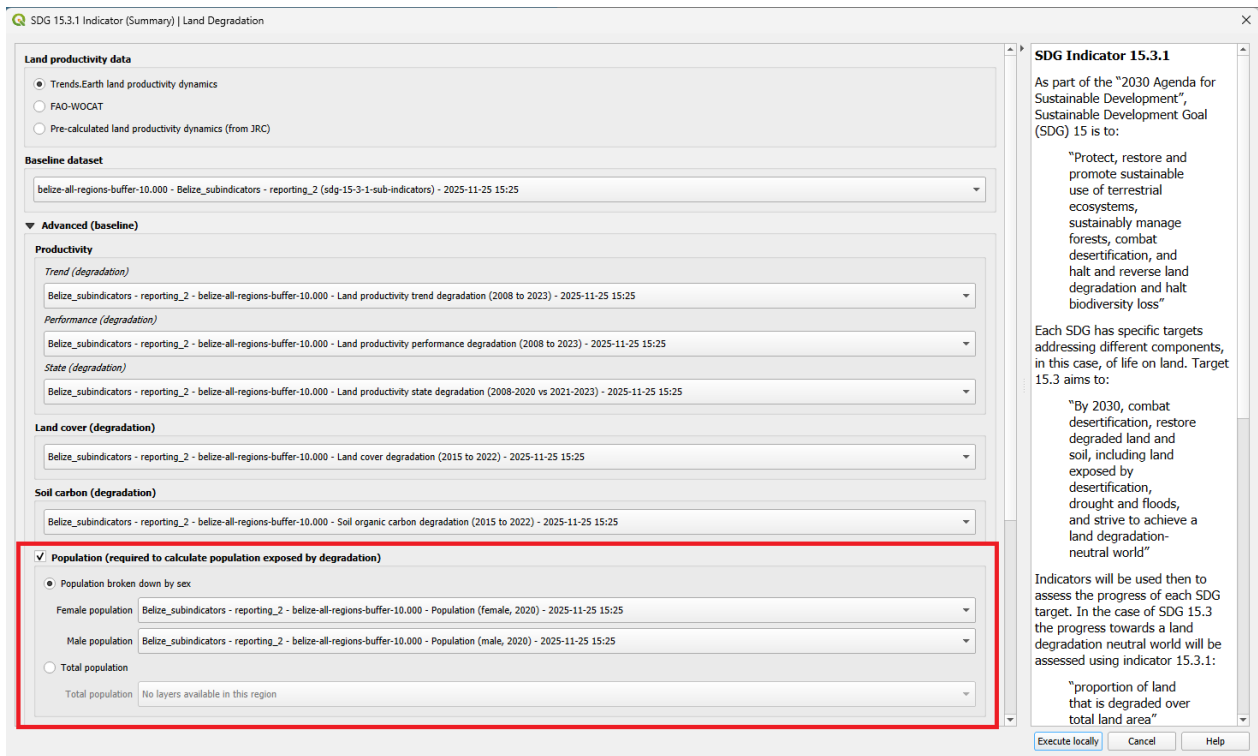
70



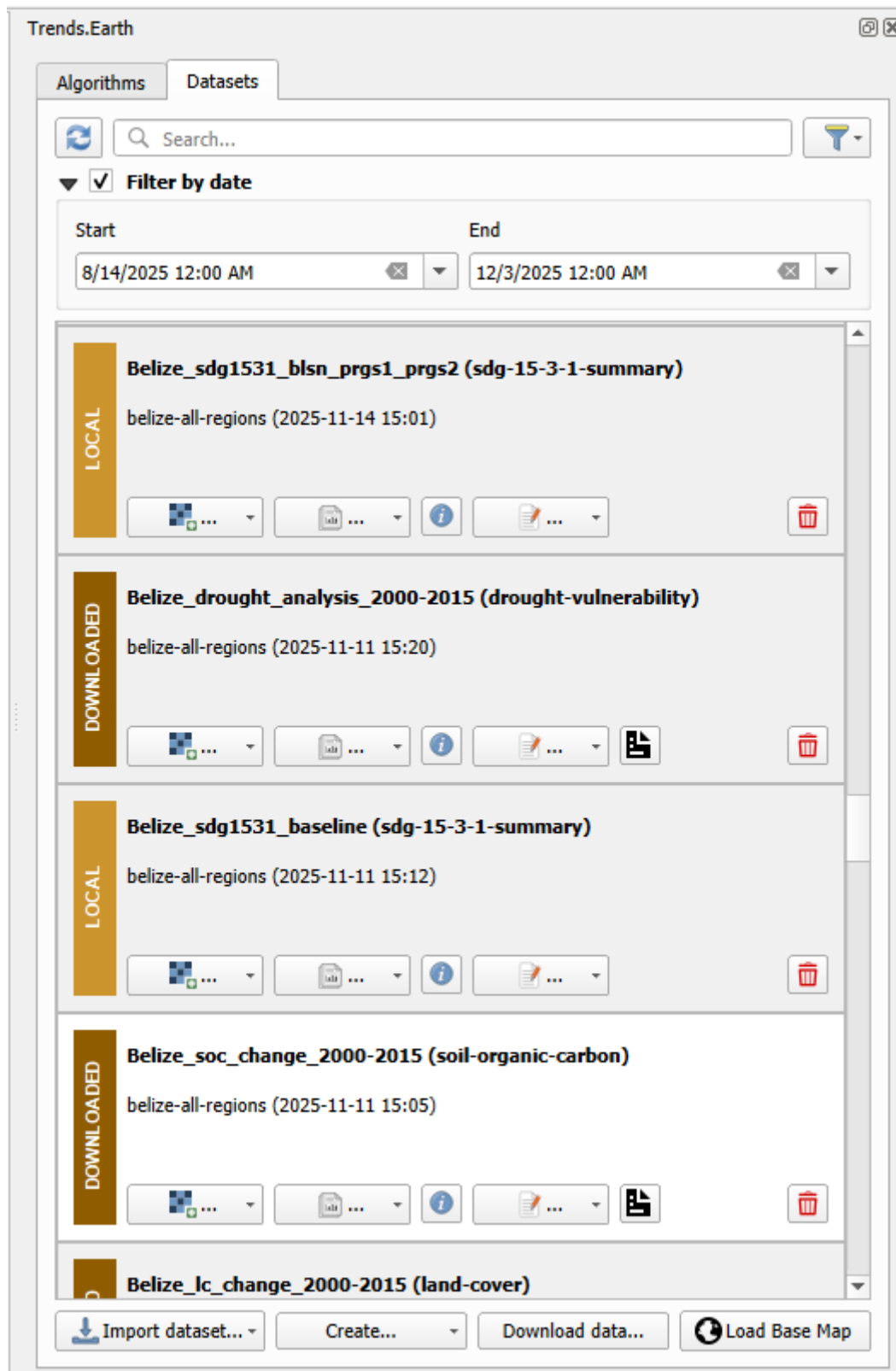
[illegible]

XXXXXXXXXXXX XXXXXXXXXXXX XXXXXXXXXXXX, THE INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE BY A CLASSIFICATION CODE.

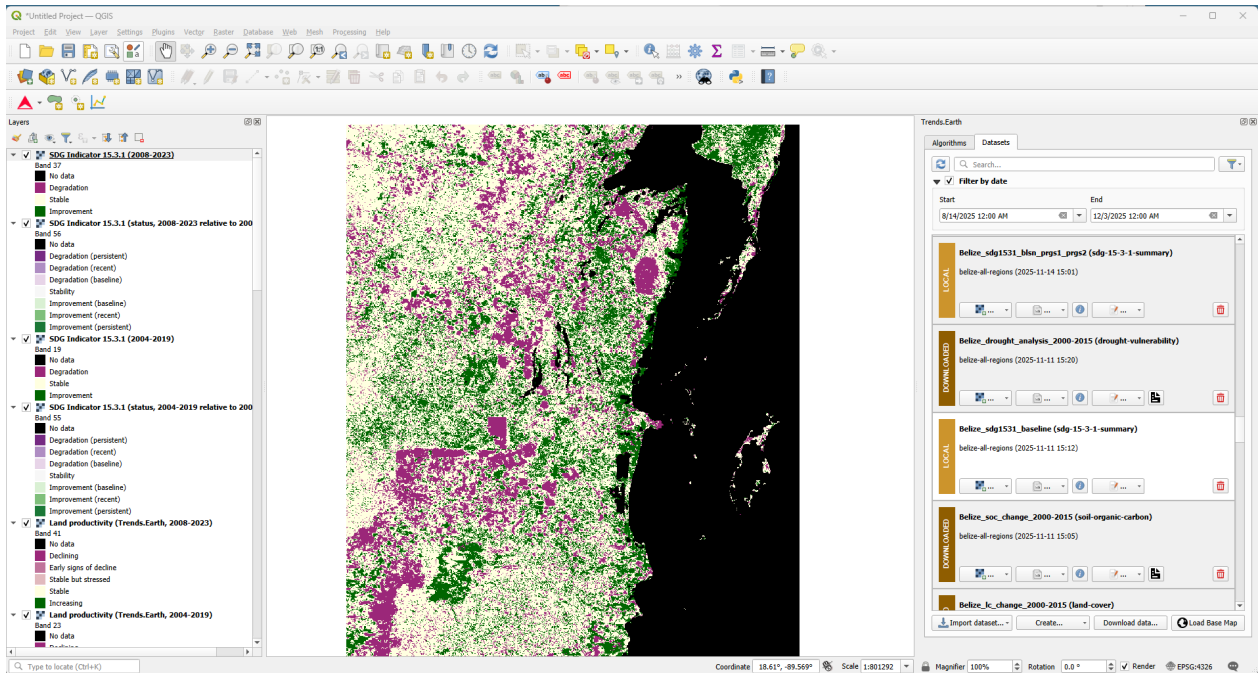
72



- 73



74

[illegible]

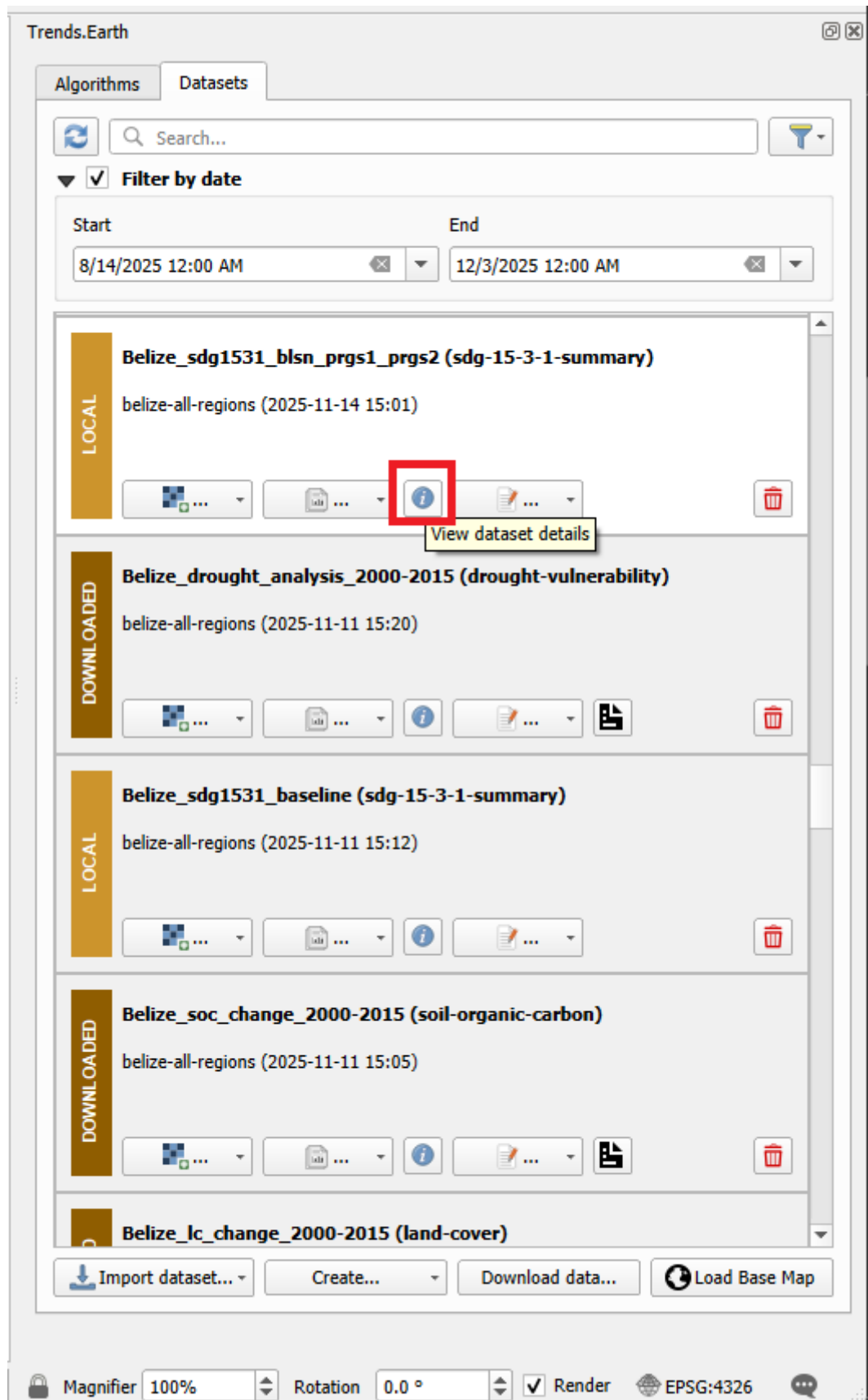
- **IP:** 192.168.1.1, **Host:** 192.168.1.1, **Port:** 80, **URL:** https://trends.earth, **Version:** 15.3.1.
- **Response Time:** 25 ms
- ****** **SSL:** ****** **SSL:** ******

<./pdfs/Trends.Earth_Tutorial08_The_Summary_Table.pdf>`_

«15.3.1».

■■■■■■■■ ■■■■■■■■

1. ■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■ ■■■■ 15.3.1 ■■■■■■■■■■■■ ■■■■■ Excel ■■■
■■■■■■■■ ■■■■■■■■■■. ■ ■■■■■ «■■■■■■■■ ■■■■■■■■» ■■■■■■■■■ «■■■■■■■■ ■■■■■■■■■
■■■■■■■■ ■■■■■■■■».



 Dataset Details

Name

Belize_sdg1531_blsn_prgs1_prgs2

ID

2233f691-45e7-4958-ad7e-1fb2c84e3425

State

GENERATED_LOCALLY

Created at

2025-11-14 15:01

Available paths

prgs1_prgs2_sdg-15-3-1-summary_belize-all-regions.vrt

Generated by algorithm

sdg-15-3-1-summary

▼ Algorithm Details

Comments:

Baseline 2001_2015
1 prgs 2015-2019
2 prgs 2015-2023

Input:

▼  periods: (3 items)

▶  [0]: (2 keys)

▶  [1]: (2 keys)

▶  [2]: (2 keys)

Output:

 name: "land_condition_summary"

▼  rasters: (1 keys)

▶  Int16: (6 keys)

▼  uri: (2 keys)

 uri: "C:\Users\gdaldegan\trends_earth_dat...

 etag: null

▼  data: (1 keys)

▶  report: (3 keys)

 type: "RasterResults"

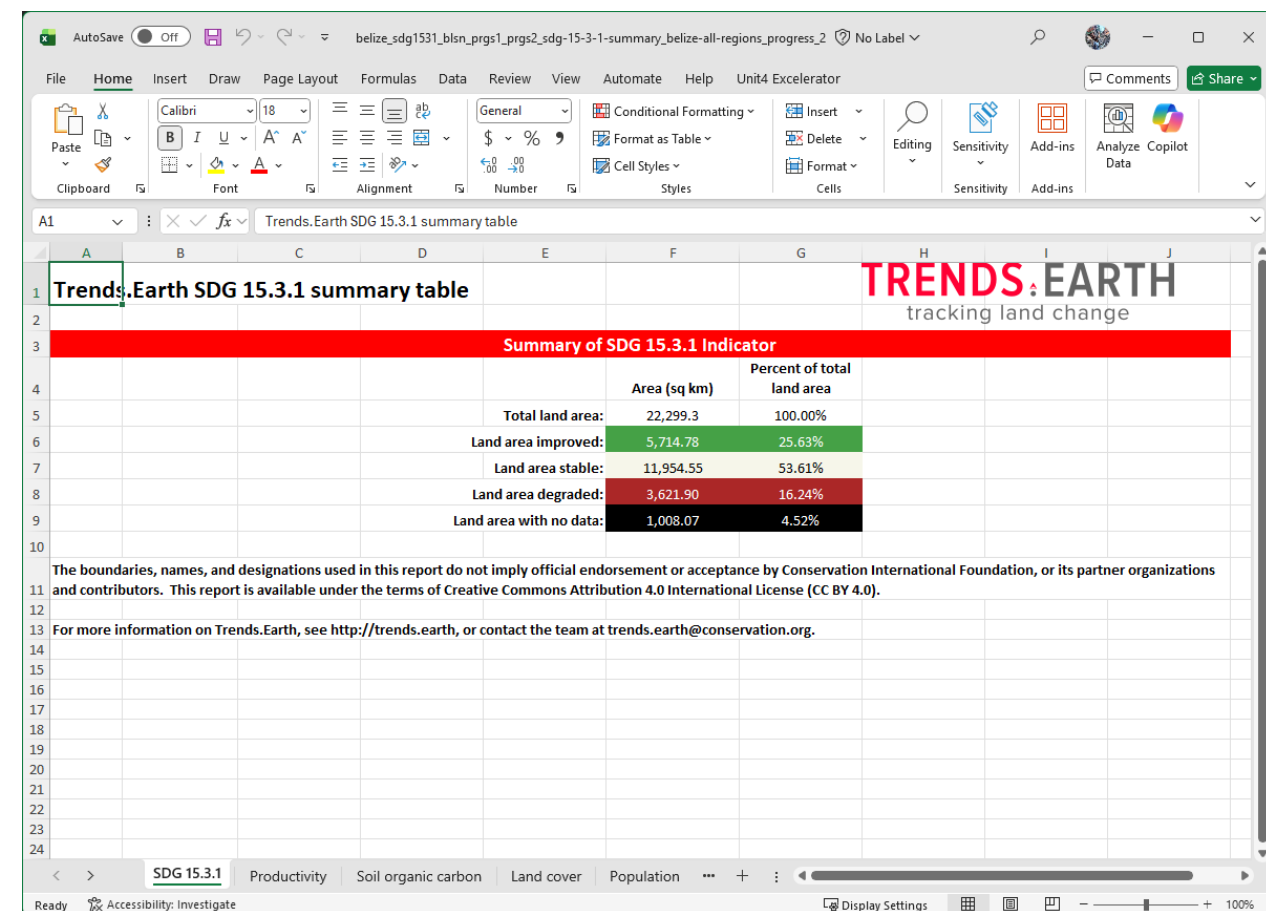
 Delete dataset

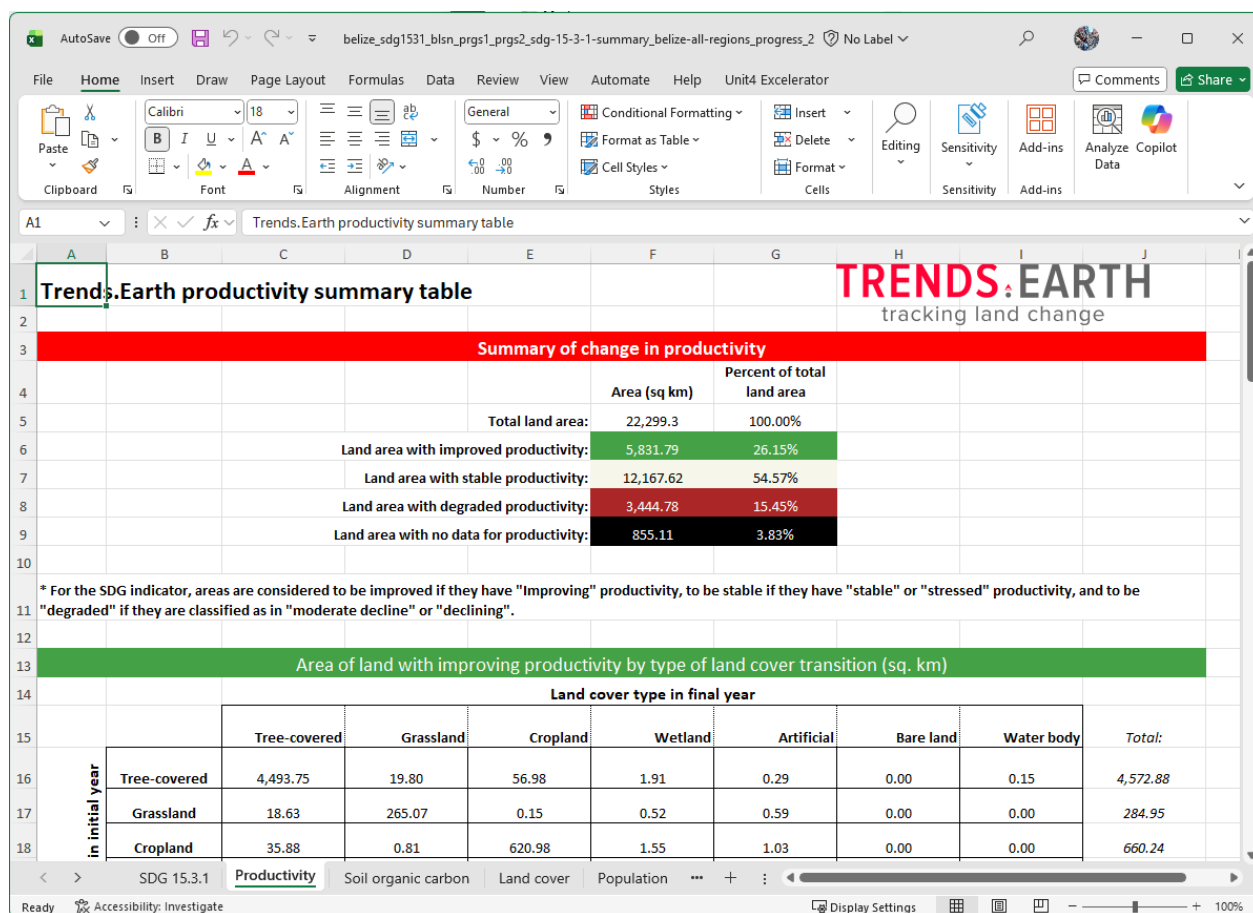
 Export as a ZIP

[illegible]

2. [REDACTED] [REDACTED] [REDACTED] 6 [REDACTED], [REDACTED] [REDACTED] [REDACTED] [REDACTED], [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]: [REDACTED] 15.3.1, [REDACTED] [REDACTED], [REDACTED] [REDACTED] [REDACTED] [REDACTED], [REDACTED] [REDACTED] [REDACTED] [REDACTED]. [REDACTED] [REDACTED] [REDACTED] 1-1 [REDACTED].

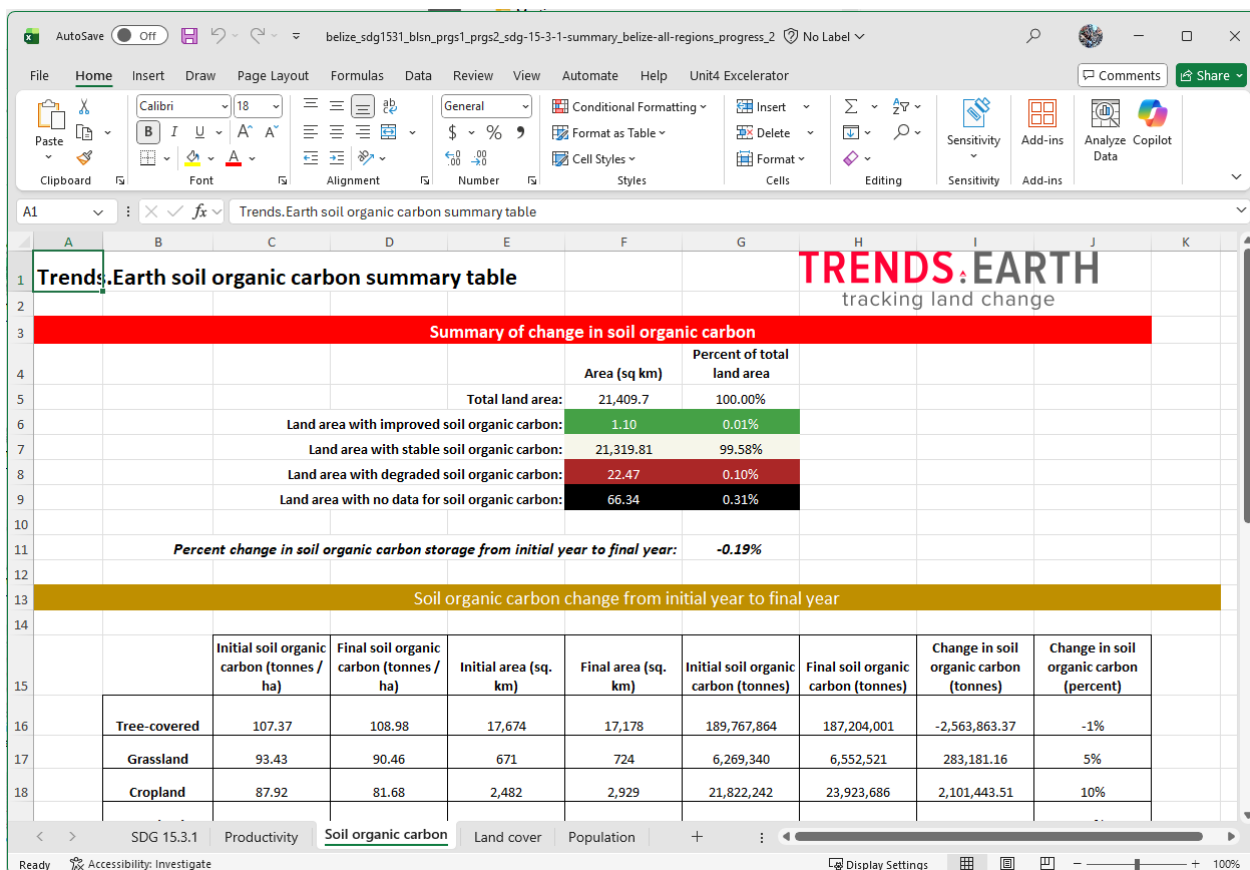
1. 本文件为《信息安全技术 网络安全等级保护基本要求》（GB/T 22239-2019）（以下简称“基本要求”）的扩展要求，是对基本要求中“安全保护等级为第三级”的网络安全等级保护对象的安全要求的具体化，是对基本要求中“安全保护等级为第三级”的网络安全等级保护对象的安全要求的具体化，是对基本要求中“安全保护等级为第三级”的网络安全等级保护对象的安全要求的具体化。

[illegible]



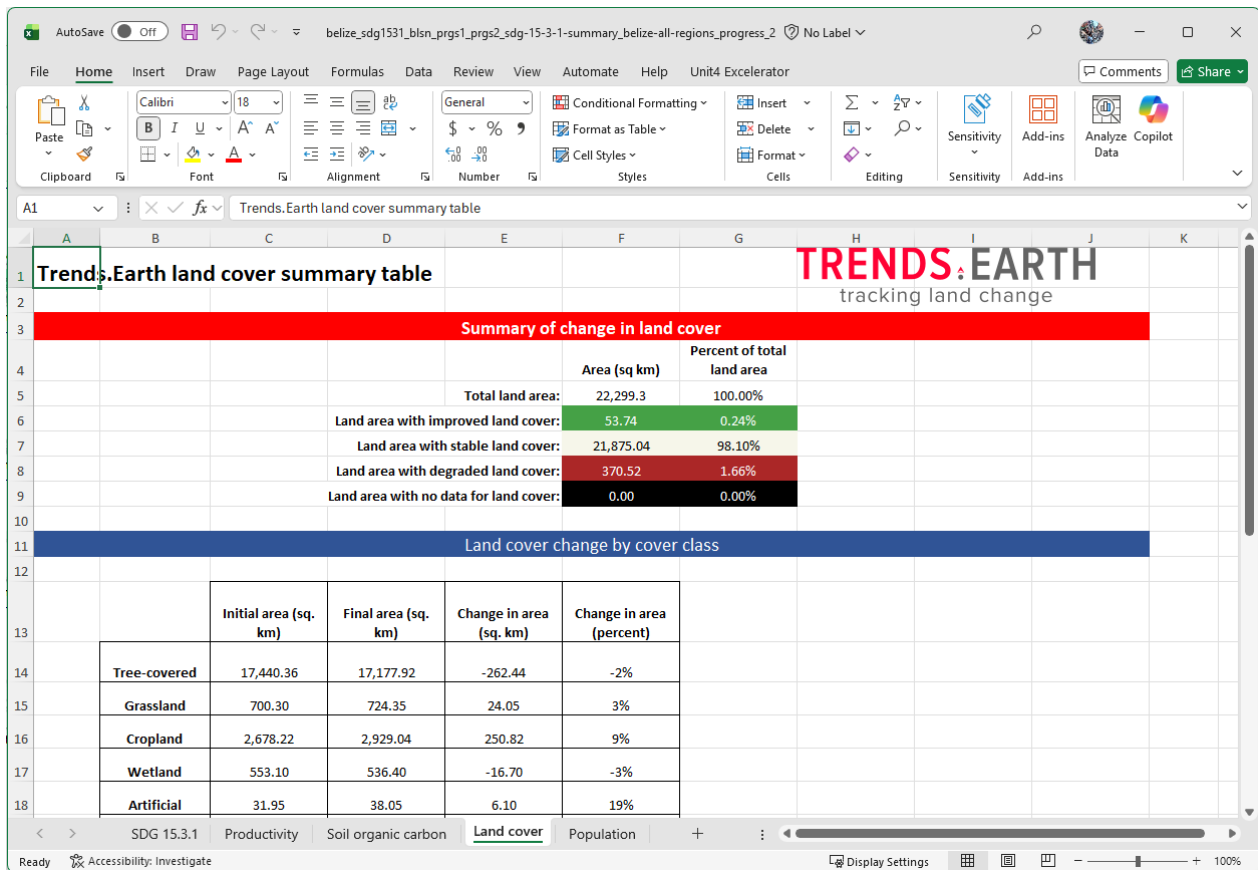
[REDACTED] [REDACTED] [REDACTED] [REDACTED]:

- 81

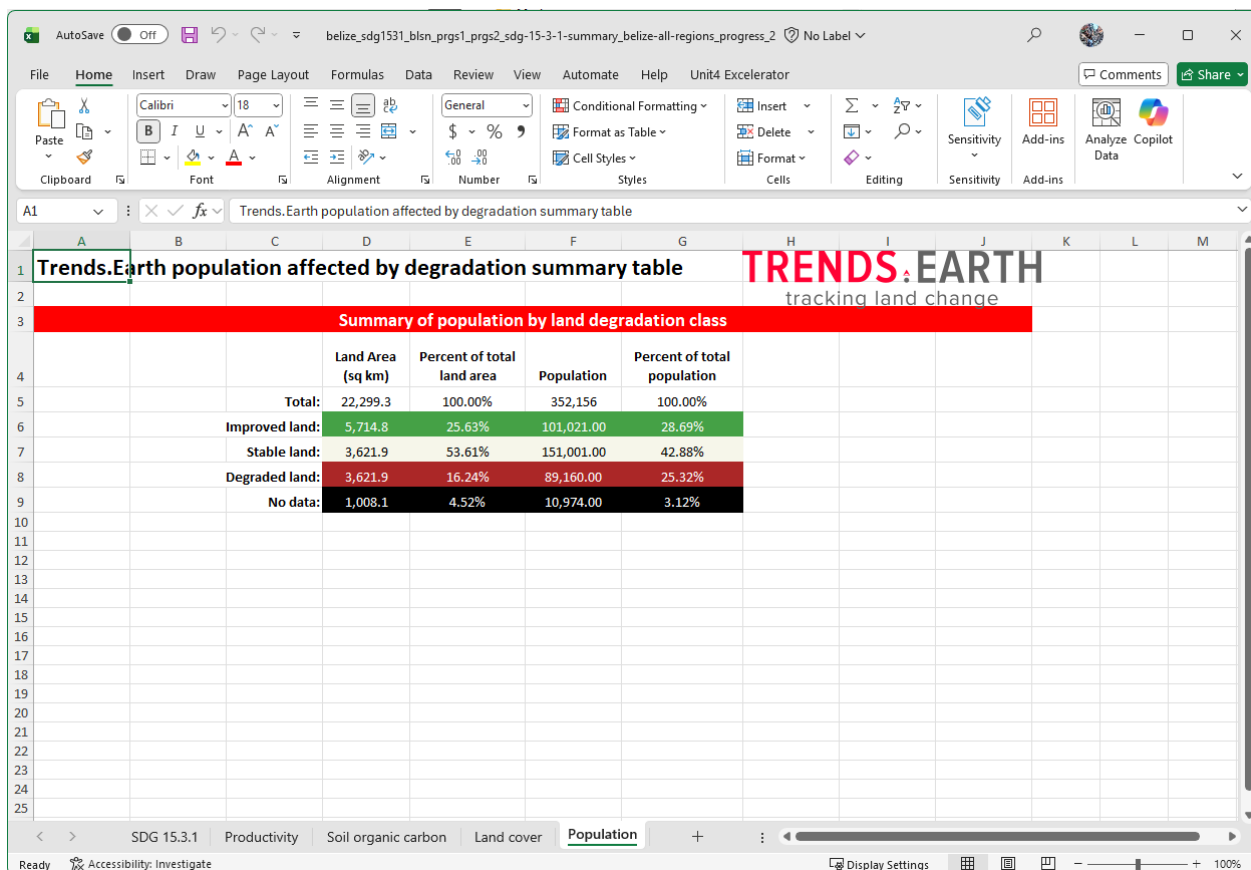


[REDACTED] [REDACTED] [REDACTED] [REDACTED]:

- [illegible]



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trends.earth output summarized in UNCCD reporting format

| Year | Total land sq. km | Water bodies sq. km | Total country area sq. km |
|------|-------------------|---------------------|---------------------------|
| 2000 | 204,519.14 | 37,298.82 | 241,817.97 |
| 2001 | 204,493.39 | 37,324.58 | 241,817.97 |
| 2002 | 204,489.30 | 37,328.67 | 241,817.97 |
| 2003 | 204,483.65 | 37,334.31 | 241,817.97 |
| 2004 | 204,484.89 | 37,333.08 | 241,817.97 |
| 2005 | 204,480.54 | 37,337.42 | 241,817.97 |
| 2006 | 204,482.53 | 37,335.44 | 241,817.97 |
| 2007 | 204,482.90 | 37,335.07 | 241,817.97 |
| 2008 | 204,483.70 | 37,334.26 | 241,817.97 |
| 2009 | 204,484.07 | 37,333.89 | 241,817.97 |
| 2010 | 204,483.70 | 37,334.26 | 241,817.97 |
| 2011 | 204,483.33 | 37,334.64 | 241,817.97 |
| 2012 | 204,483.21 | 37,334.76 | 241,817.97 |
| 2013 | 204,483.27 | 37,334.70 | 241,817.97 |
| 2014 | 204,483.46 | 37,334.51 | 241,817.97 |
| 2015 | 204,483.46 | 37,334.51 | 241,817.97 |

| Year | Tree-covered areas | Grassland | Cropland | Wetland | Artificial surfaces | Other land |
|------|--------------------|-----------|------------|----------|---------------------|------------|
| 2000 | 48,910.64 | 40,295.28 | 111,220.54 | 3,859.05 | 232.34 | 1.30 |
| 2001 | 49,153.35 | 39,670.95 | 111,521.34 | 3,856.37 | 290.07 | 1.30 |

Note

[REDACTED] b [REDACTED], [REDACTED] [REDACTED]
[REDACTED].

RESEARCH DESIGN

- [REDACTED]: [REDACTED] [REDACTED] [REDACTED]**
- [REDACTED], [REDACTED] Trends.Earth.**
- ** [REDACTED] [REDACTED] **: 20 [REDACTED]**
- ** [REDACTED] [REDACTED] **. [REDACTED]**

Note

[illegible]

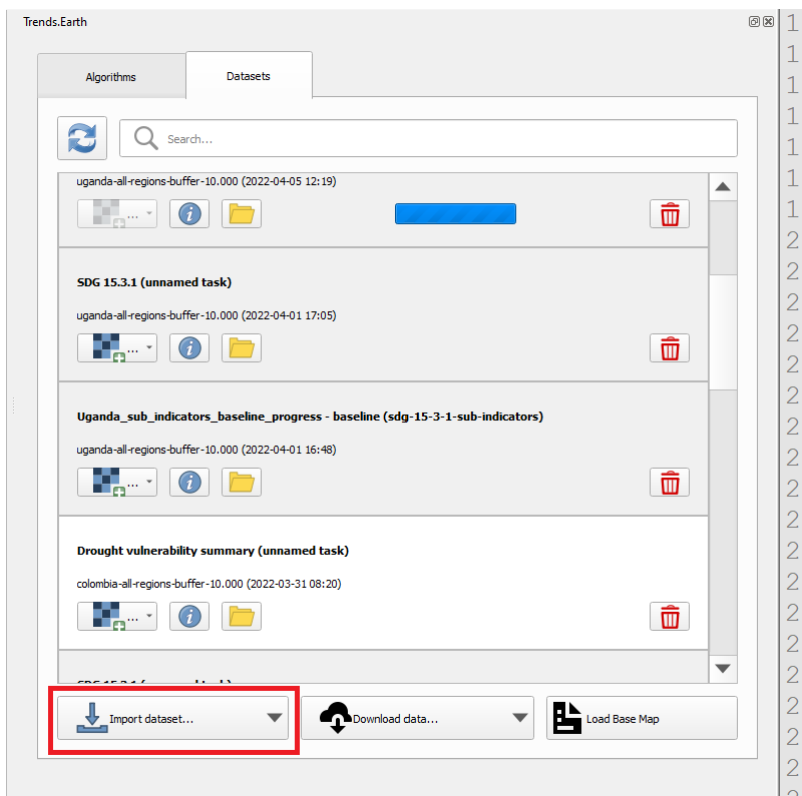
Trends.Earth,
:

-    = 1
-    = 2
-      = 3
-   = 4
-    = 5
-   = 0  -32768

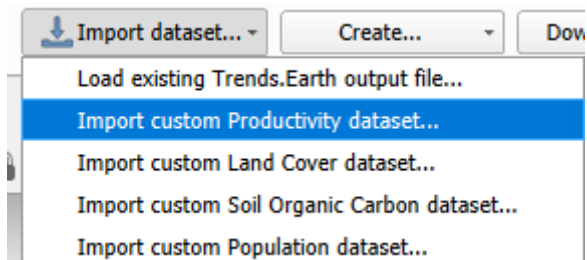
Trends.Earth [releases](#) [new](#) [satellite-based](#) [global](#) [land-use](#) [change](#) [dataset](#).

- [illegible]

██████████ ██████████



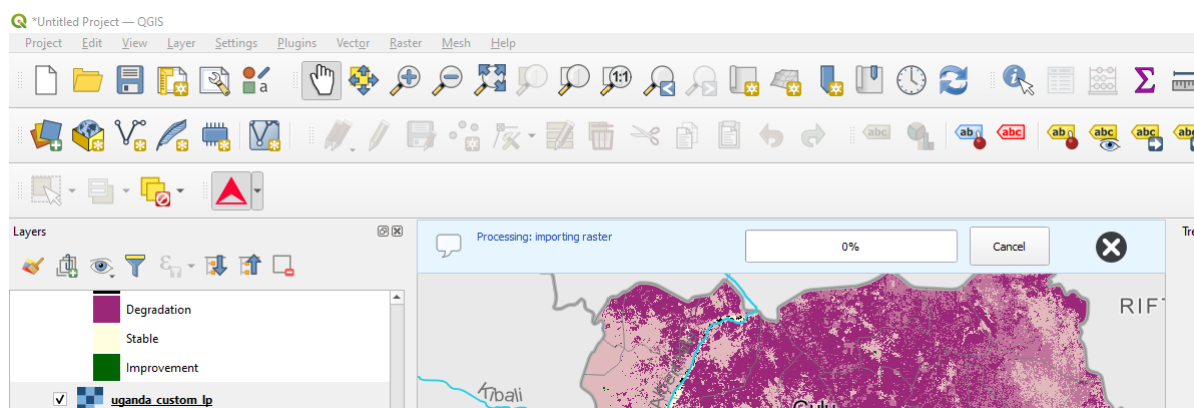
- [illegible]



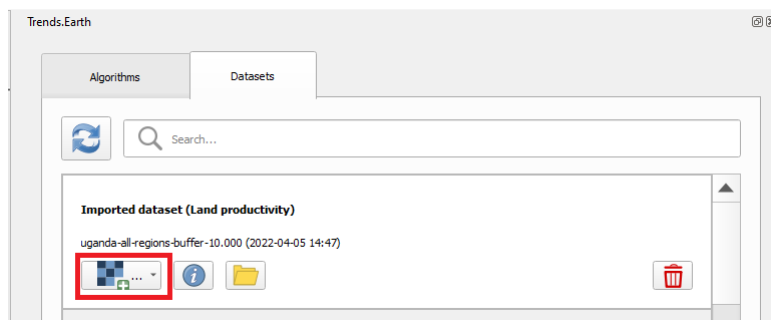
- [illegible]

**XXXXXXXXXX XXXXXX XXXXXXXXXXXXXXXX XXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXX. XXXXXXXX
XXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXXXXX. XX XXXXXXXXXXXXXXXX
XXXXXXXXXXXXX XX XX XXXXXXXXXXXXXXXX, XXXXXXX X XXXX XXXX XXXXXXXXXXX XXXXXXXX XXXX XX
XXXXXXXXXXXX.**

- [illegible]



- [illegible]

[illegible]

Note

[illegible]

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000000: 00000000 00000000 0000000000000000 000000 0
 0000000000000000 0 00000000 0000000000000000
 0000000000000000 0 00000000 Trends.Earth.

- ** ** **: 40
- ** **:

Note

RESEARCH DATA

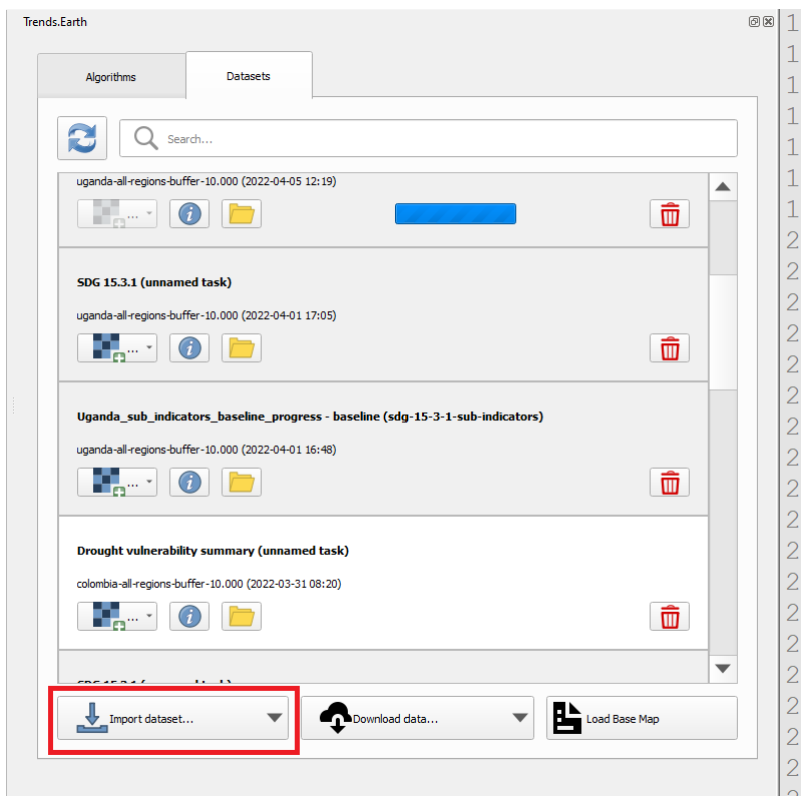
«**RESEARCH DATA**»

<http://geoportal.rcmr.org/layers/servir%3Auganda_landcover_2014_scheme_i>` ■■■■■■ ■■■■
■■■■■■■ ■■■■ ■■■■■■

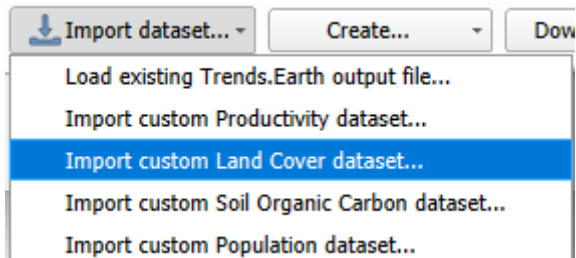
<https://s3.amazonaws.com/trends.earth/sharing/RCMRD_Uganda_Land_Cover.zip>.

- [illegible]

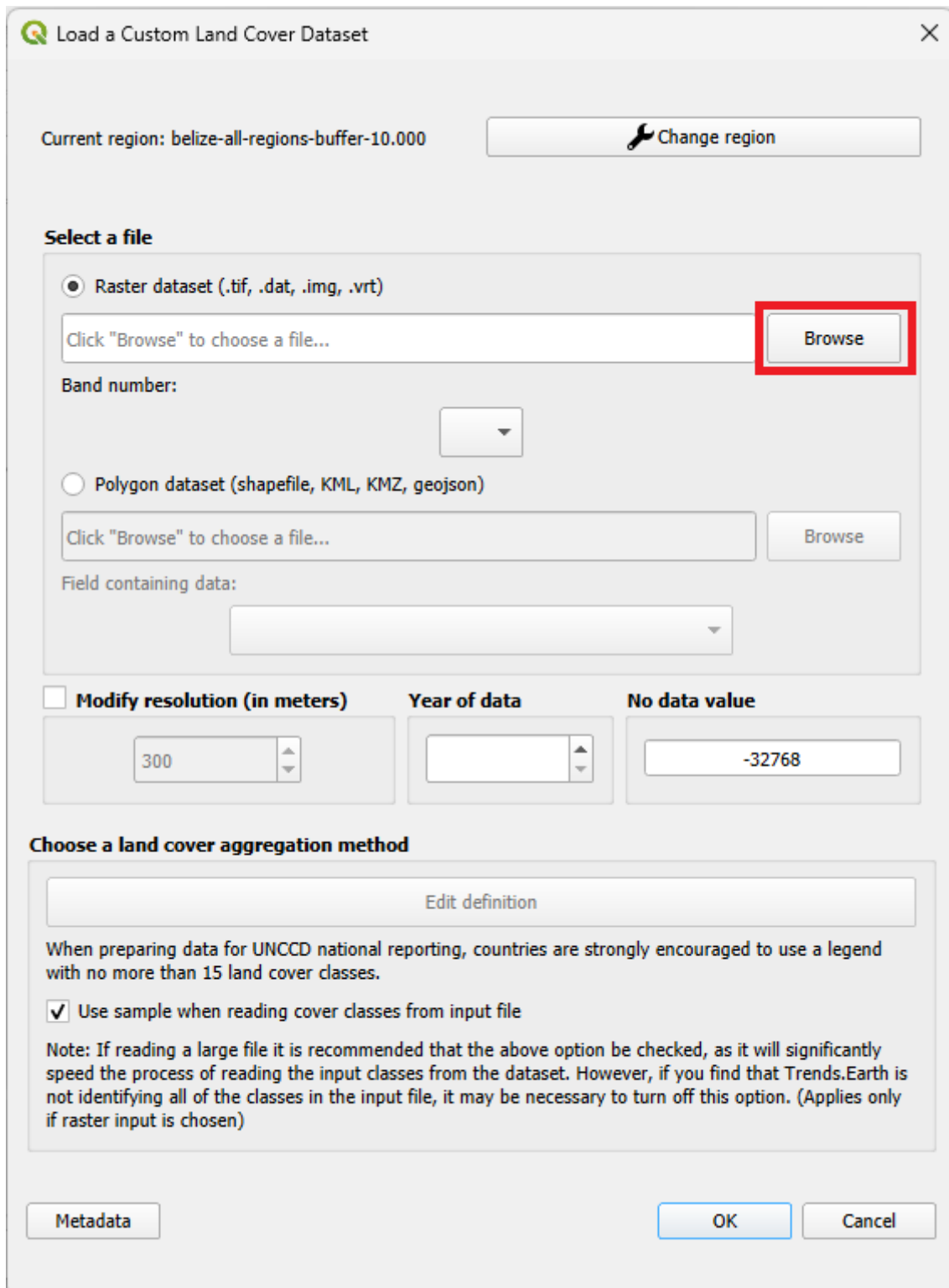
██████████ ██████████



- [illegible]



- [illegible]



- 91

[illegible]

«**В соответствии с требованиями законодательства Российской Федерации, действующими на территории Республики Беларусь, в целях обеспечения безопасности населения и охраны окружающей среды, в 2000 году, в Республике Беларусь были проведены следующие мероприятия. В частности, были проведены следующие мероприятия:**

- [illegible]


Setup aggregation of land cover data
✕

| Input code ▾ | Output class |
|--------------|--------------|
| 0 | No data ▾ |
| 1 | No data ▾ |
| 2 | No data ▾ |
| 3 | No data ▾ |
| 4 | No data ▾ |
| 5 | No data ▾ |
| 6 | No data ▾ |
| 255 | No data ▾ |
| -32768 | No data ▾ |

Reset to default

Load definition from file
Save definition to file

Save

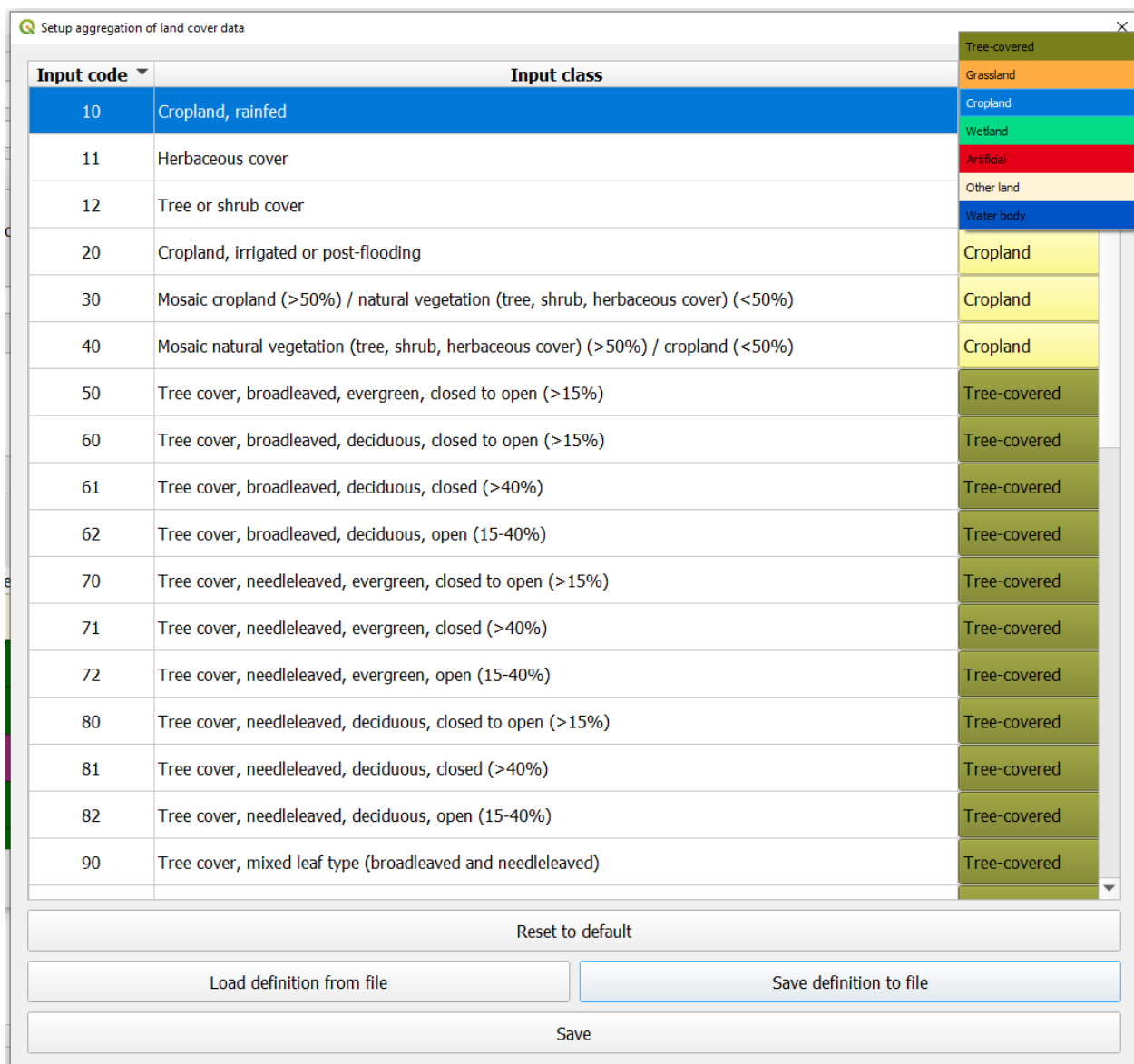
- [illegible]

| | |
|---|--|
|  1 - Dense Natural Forest |  10 - Closed bushland |
|  2 - Moderate Natural Forest |  11 - Open Bushland |
|  3 - Sparse Natural Forest |  12 - Perennial Commercial Cropland |
|  4 - Sparse Woodland |  13 - Subsistence Cropland |
|  5 - Dense Woodland |  14 - Subsistence Cropland |
|  6 - Moderate Woodland |  15 - Wetland |
|  7 - Sparse Woodland |  16 - Water Body |
|  8 - Closed Grassland |  17 - Settlement |
|  9 - Open Grassland |  18 - Other Land |

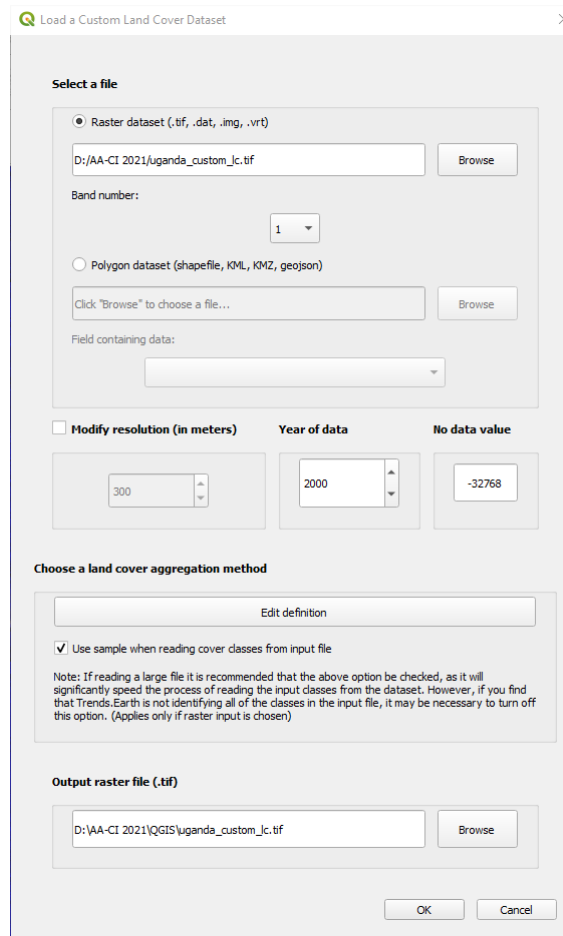
- [illegible]

1. 在 2019 年 12 月 31 日，本公司 ** 应收账款 账面余额为 1,000,000.00 元，坏账准备为 100,000.00 元，计提比例为 10%。

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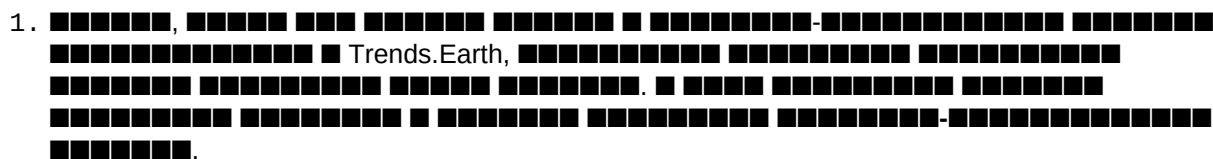
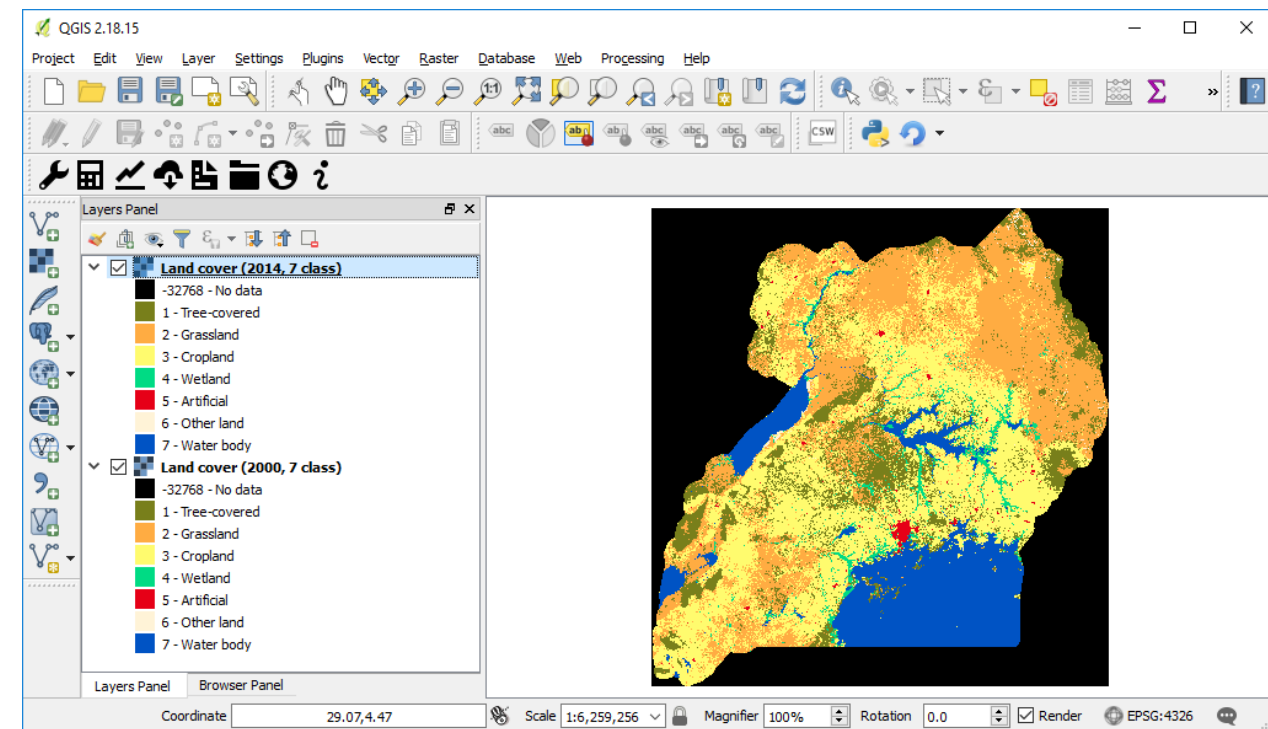
94

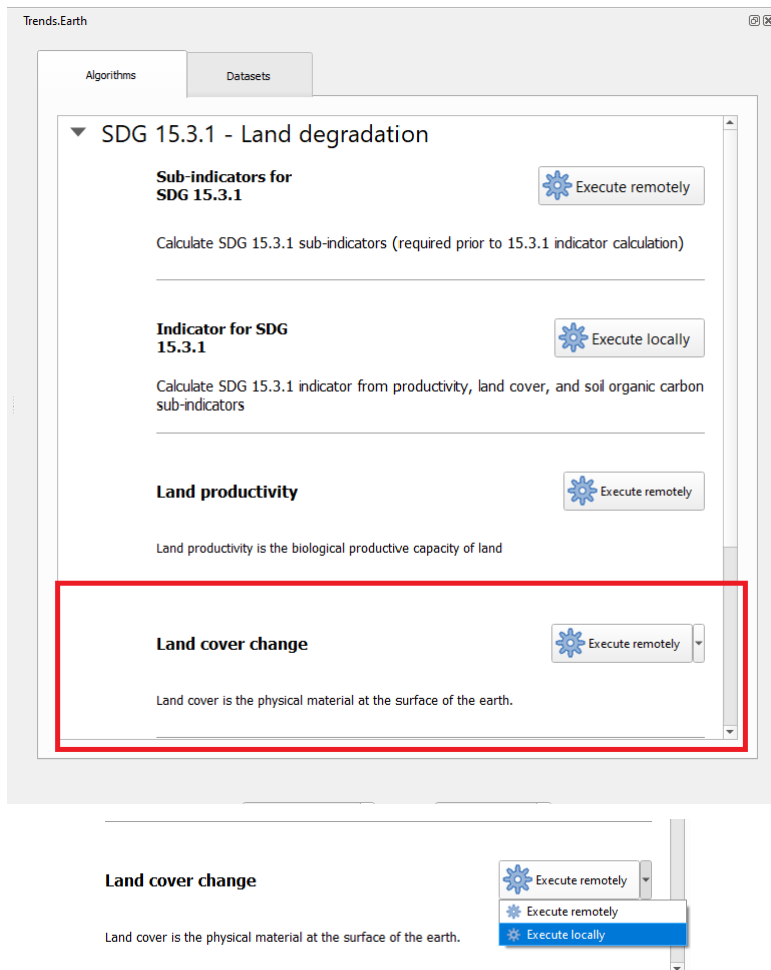


The screenshot displays the QGIS 2.18.15 desktop application. The top menu bar includes Project, Edit, View, Layer, Settings, Plugins, Vector, Raster, Database, Web, Processing, and Help. Below the menu is a comprehensive toolbar with icons for file operations, navigation, and processing. On the left side, the Layers Panel is visible, showing a list of layers with their respective icons. The main canvas area is currently empty. A Processing tool window is open, showing a progress bar at 17% and a 'Cancel' button. The status bar at the bottom provides information about the current map view, including the coordinate (26.95, 3.13), scale (1:6,499,997), magnifier (100%), rotation (0.0), and the EPSG:4326 coordinate system.

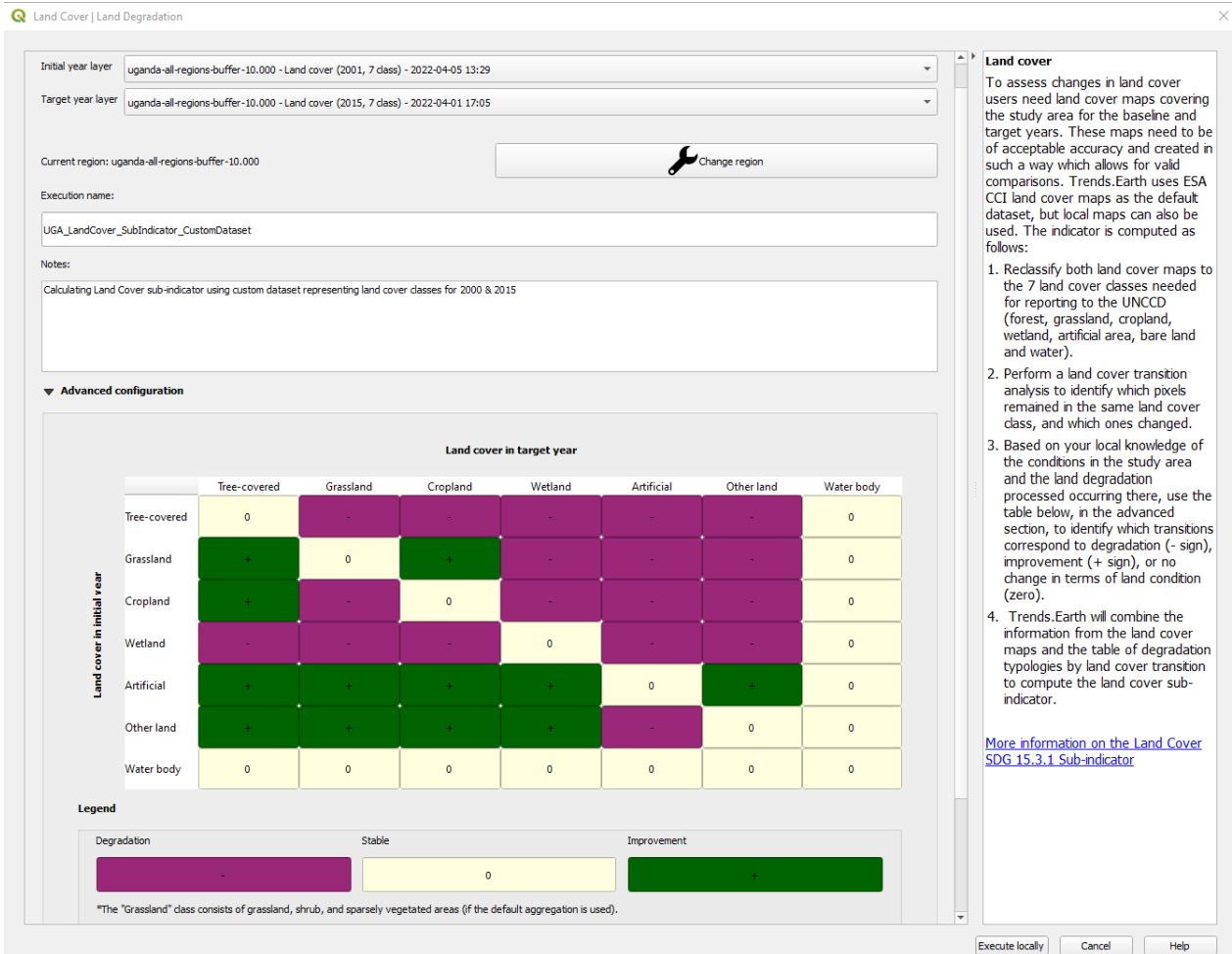
[illegible]

96





98



- ### Note

[illegible]

[illegible]

Land cover in target year

| | Tree-covered | Grassland | Cropland | Wetland | Artificial | Other land | Water body |
|--------------|--------------|-----------|----------|---------|------------|------------|------------|
| Tree-covered | 0 | - | - | - | - | - | 0 |
| Grassland | + | 0 | + | - | - | - | 0 |
| Cropland | + | - | 0 | - | - | - | 0 |
| Wetland | - | - | - | 0 | - | - | 0 |
| Artificial | + | + | + | + | 0 | + | 0 |
| Other land | + | + | + | + | - | 0 | 0 |
| Water body | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Land cover in initial year

Legend

Degradation Stable Improvement

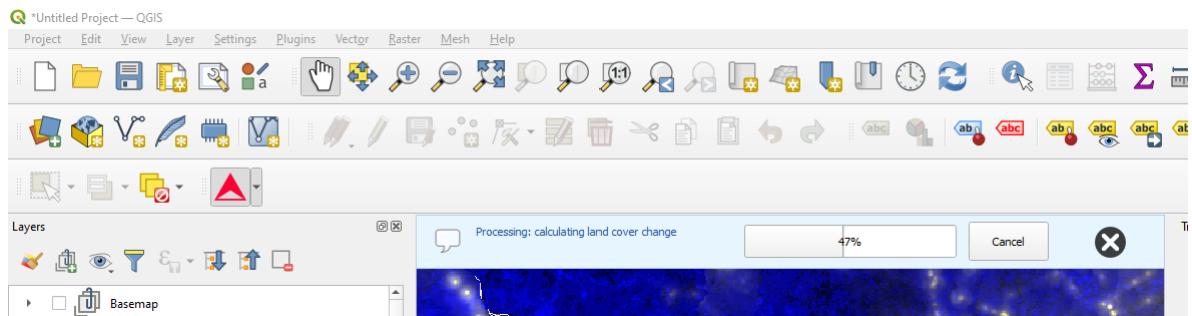
- 0 +

*The "Grassland" class consists of grassland, shrub, and sparsely vegetated areas (if the default aggregation is used).

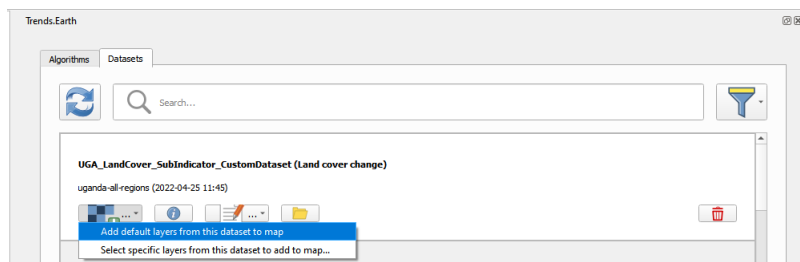
Reset table Load saved table... Save table to file...

[illegible]

4. ■■■■■■ ■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■, ■■■■■■■■ ■■■■■■■■
■■■■■■■■■■, ■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■.



- [illegible]



SOC

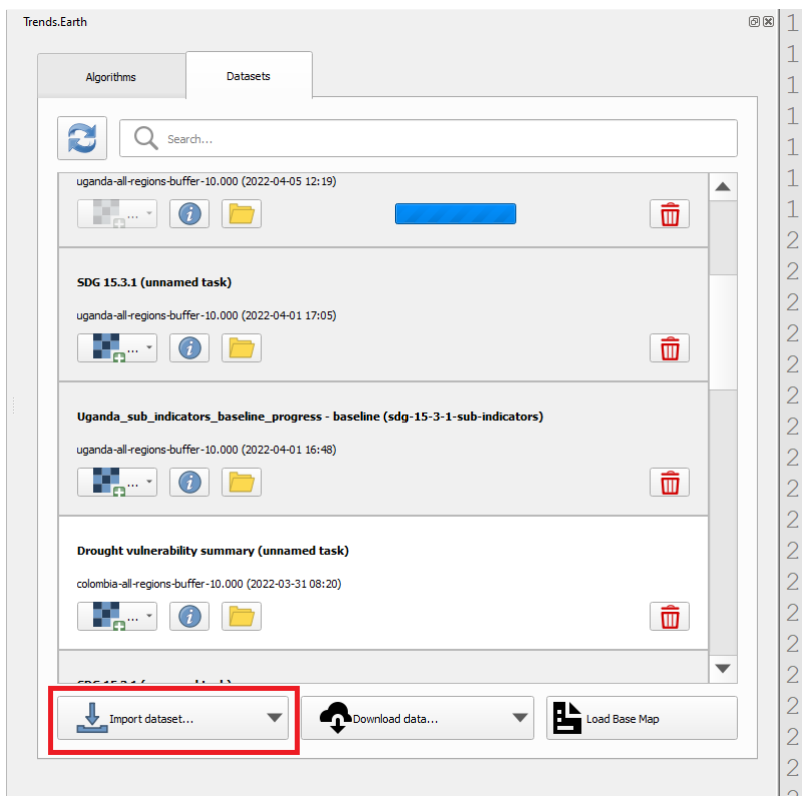
- [REDACTED]: [REDACTED], [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED] Trends.Earth.
- ** [REDACTED] [REDACTED] [REDACTED] **: 20 [REDACTED]
- ** [REDACTED] [REDACTED] **: [REDACTED] [REDACTED]

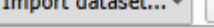


Note

Trends Earth is a leading provider of climate change information and analysis. Our mission is to provide the world's most comprehensive and accessible climate change information and analysis. We are committed to providing the world's most comprehensive and accessible climate change information and analysis.

1. [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED], [REDACTED] [REDACTED] [REDACTED] [REDACTED], [REDACTED] [REDACTED]
[REDACTED] [REDACTED].



- 
- Import dataset... Create... Down
- Load existing Trends.Earth output file...
 - Import custom Productivity dataset...
 - Import custom Land Cover dataset...
 - Import custom Soil Organic Carbon dataset...**
 - Import custom Population dataset...

- 102



Load a Custom Soil Organic Carbon (SOC) dataset

Select a file

☒ Raster dataset (.tif, .dat, .img, .vrt)

C:\Users\jgaldegan\workspace\earth_data\UGA_custom\UGA_custom_soc.tif

Band number:

1

☐ Polygon dataset (shapefile, KM, KMZ, geopjson)

Click "Browse" to choose a file...

Field containing data:

☐ Modify resolution (in meters)

Year of data

No data value

300

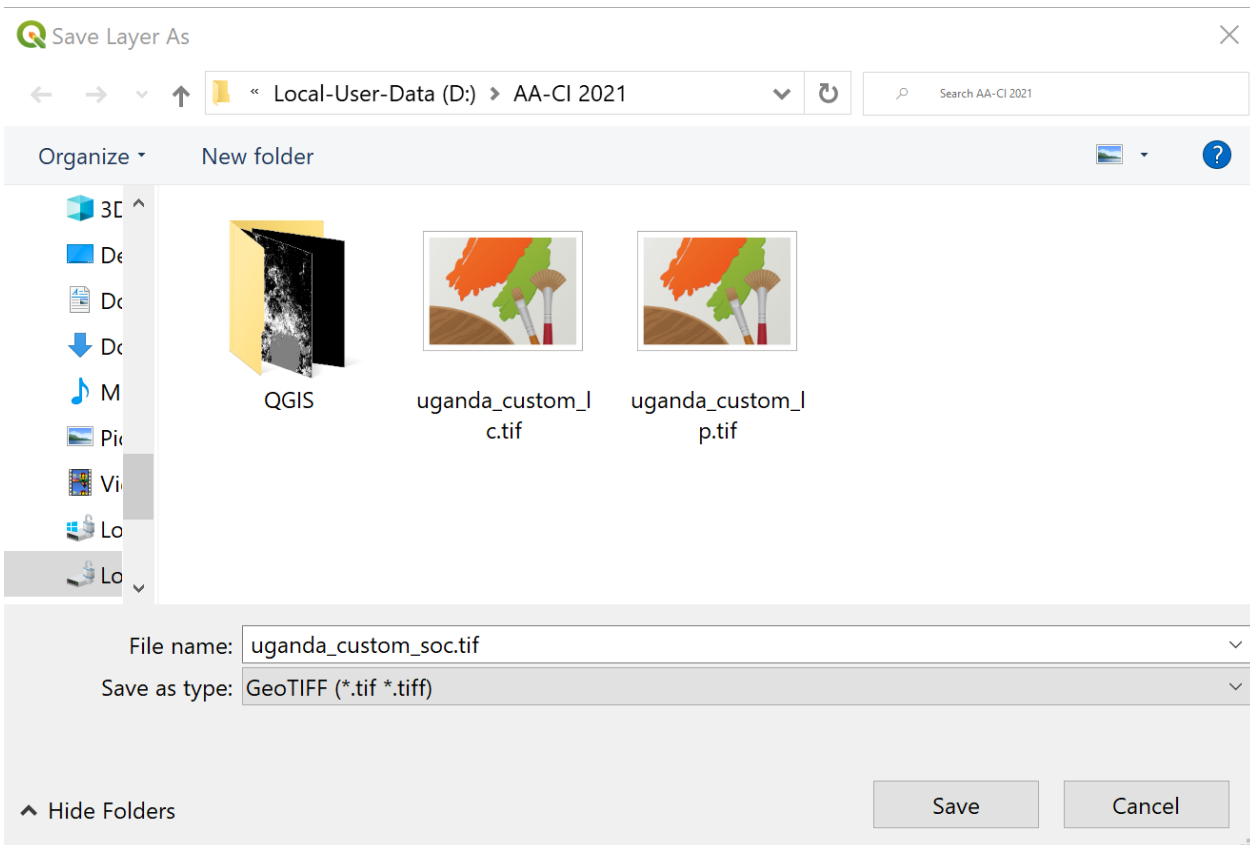
2000

-32768

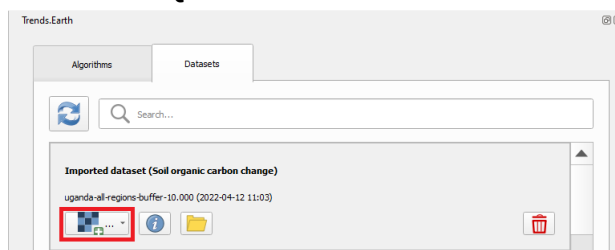
Output raster file (.tif)

D:\UGA_SOC_CustomData.tif

4. 本局於民國九十四年九月間，接獲民眾檢舉，指稱在臺南市東區某處，發現有不明來源之廢棄物，疑似為非法傾倒之垃圾。經本局派員前往現場勘查，發現該處確實有大量廢棄物堆積，且該處為私人所有之土地，並無合法之垃圾處理設施。本局隨即向該土地所有權人發出通知，要求其限期清理廢棄物，並向本局申報處理計畫。惟該所有權人未依期清理，且拒絕與本局聯繫。本局遂依法對該處廢棄物進行清理，並對該所有權人處以罰鍰。該所有權人不服處分，提起行政訴訟。經法院判決，撤銷處分，並判令本局應負清理費用。本局現正與該所有權人協商清理事宜，以期達成協議，避免再次發生類似事件。
6. 本局於民國九十四年九月間，接獲民眾檢舉，指稱在臺南市東區某處，發現有不明來源之廢棄物，疑似為非法傾倒之垃圾。經本局派員前往現場勘查，發現該處確實有大量廢棄物堆積，且該處為私人所有之土地，並無合法之垃圾處理設施。本局隨即向該土地所有權人發出通知，要求其限期清理廢棄物，並向本局申報處理計畫。惟該所有權人未依期清理，且拒絕與本局聯繫。本局遂依法對該處廢棄物進行清理，並對該所有權人處以罰鍰。該所有權人不服處分，提起行政訴訟。經法院判決，撤銷處分，並判令本局應負清理費用。本局現正與該所有權人協商清理事宜，以期達成協議，避免再次發生類似事件。
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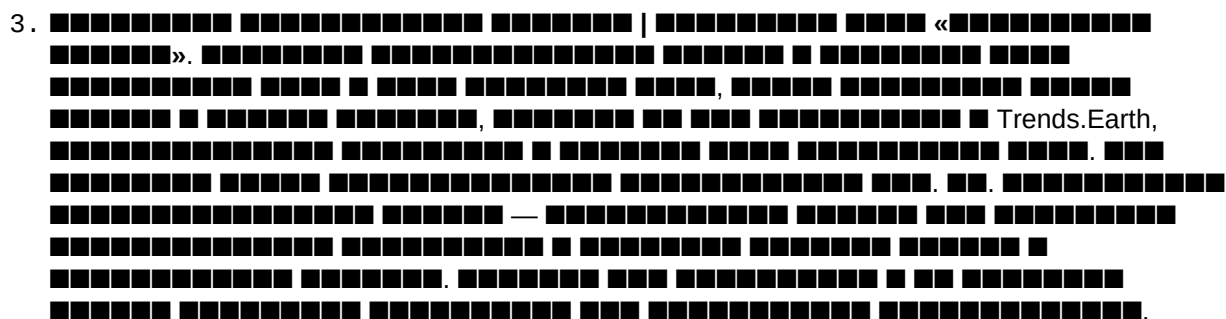
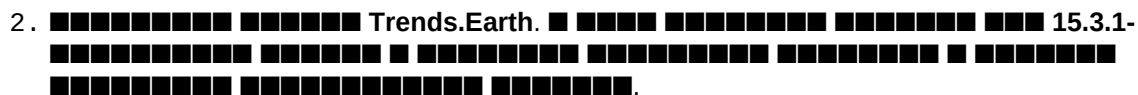


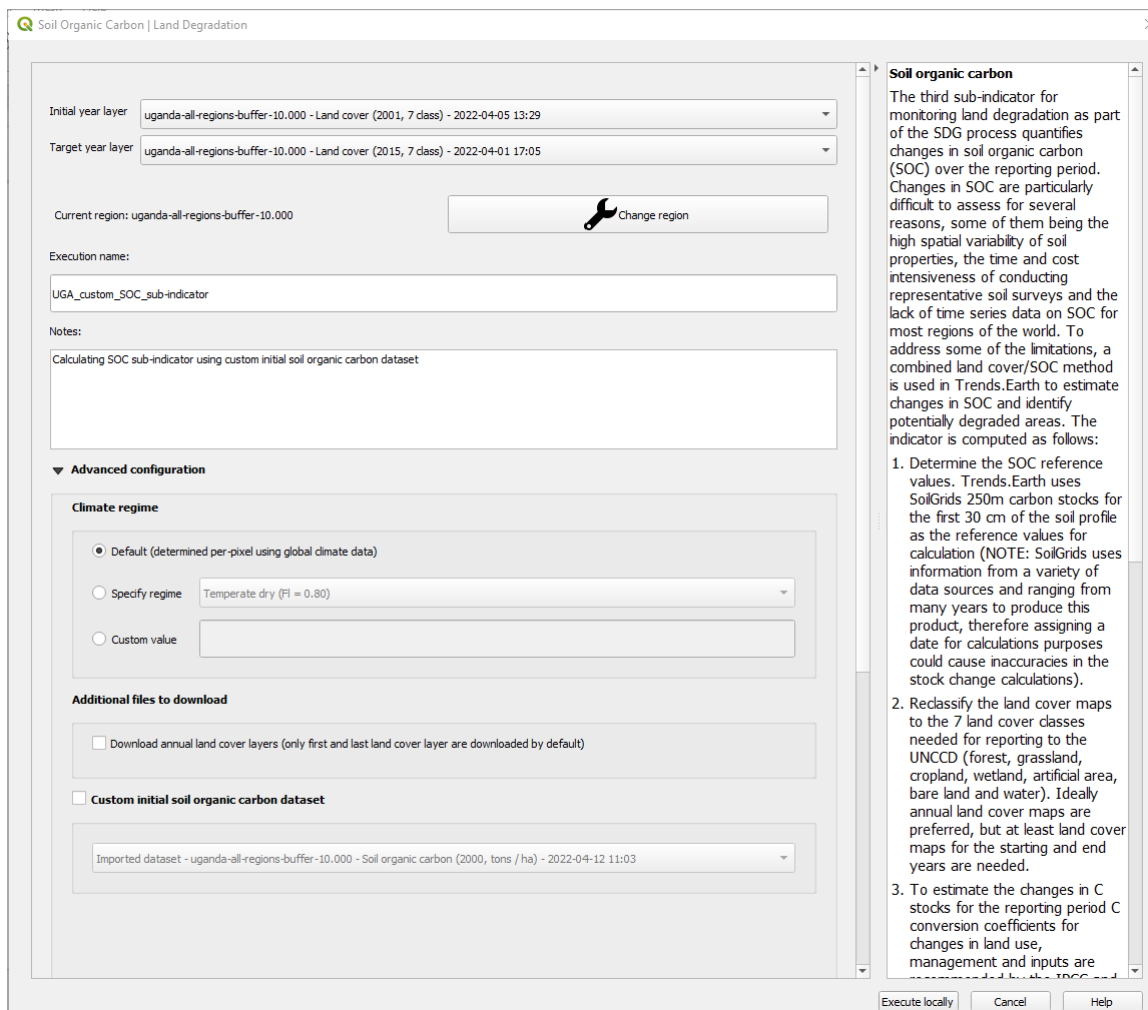
8. **„Kommunikation ist ein zentraler Bestandteil der Unternehmenskultur und wird durch die Führungskraft geleistet.“**
„Kommunikation ist ein zentraler Bestandteil der Unternehmenskultur und wird durch die Führungskraft geleistet.“
„Kommunikation ist ein zentraler Bestandteil der Unternehmenskultur und wird durch die Führungskraft geleistet.“
9. **„Kommunikation ist ein zentraler Bestandteil der Unternehmenskultur und wird durch die Führungskraft geleistet.“**
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10. **„Kommunikation ist ein zentraler Bestandteil der Unternehmenskultur und wird durch die Führungskraft geleistet.“**
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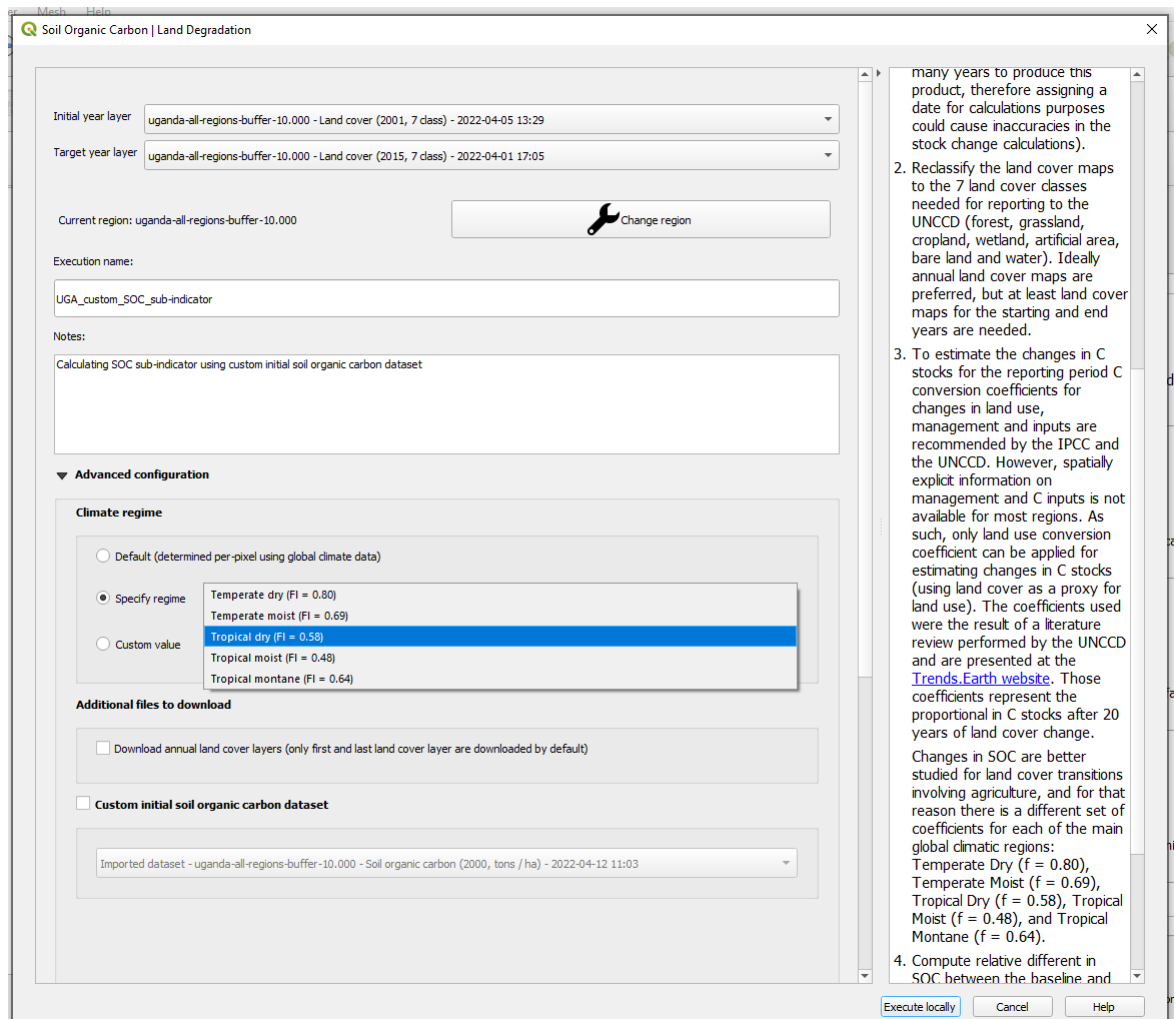
OGIS (OGIS::ref:load_custom_soc).

1. ■■■■■■■■ ■■■■■■ ■■■■■■■■■■■■■■ Trends.Earth ■ QGIS ■ ■■■■■■■■ ■■ ■■■■■■■■
«Trends.Earth».





106



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Soil Organic Carbon | Land Degradation

Initial year layer: uganda-all-regions-buffer-10.000 - Land cover (2001, 7 class) - 2022-04-05 13:29

Target year layer: uganda-all-regions-buffer-10.000 - Land cover (2015, 7 class) - 2022-04-01 17:05

Current region: uganda-all-regions-buffer-10.000 Change region

Execution name: UGA_custom_SOC_sub-indicator

Notes: Calculating SOC sub-indicator using custom initial soil organic carbon dataset

Advanced configuration

Climate regime

☐ Default (determined per-pixel using global climate data)

☒ Specify regime: Temperate dry ($f = 0.80$)

☐ Custom value:

Additional files to download

☐ Download annual land cover layers (only first and last land cover layer are downloaded by default)

☒ Custom initial soil organic carbon dataset

Imported dataset: uganda-all-regions-buffer-10.000 - Soil organic carbon (2000, tons / ha) - 2022-04-12 11:03

many years to produce this product, therefore assigning a date for calculations purposes could cause inaccuracies in the stock change calculations).

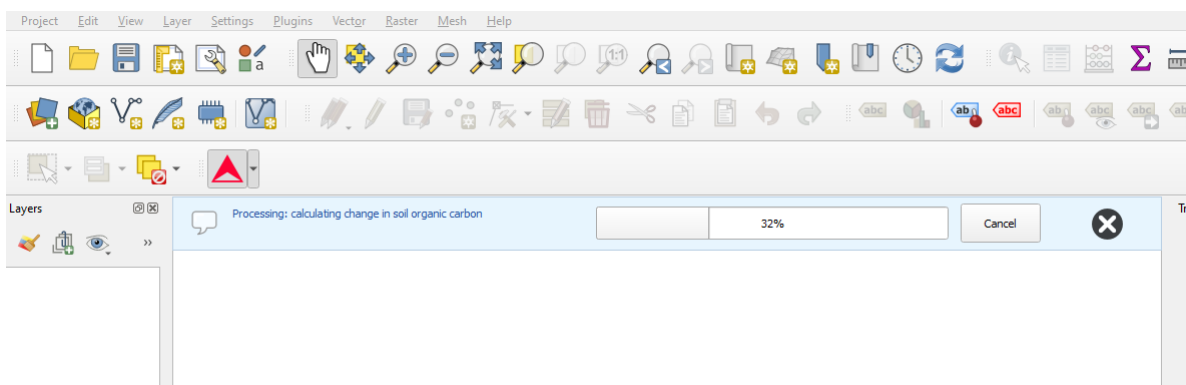
2. Reclassify the land cover maps to the 7 land cover classes needed for reporting to the UNCCD (forest, grassland, cropland, wetland, artificial area, bare land and water). Ideally annual land cover maps are preferred, but at least land cover maps for the starting and end years are needed.

3. To estimate the changes in C stocks for the reporting period C conversion coefficients for changes in land use, management and inputs are recommended by the IPCC and the UNCCD. However, spatially explicit information on management and C inputs is not available for most regions. As such, only land use conversion coefficient can be applied for estimating changes in C stocks (using land cover as a proxy for land use). The coefficients used were the result of a literature review performed by the UNCCD and are presented at the [Trends.Earth website](https://www.trends.earth/). Those coefficients represent the proportional in C stocks after 20 years of land cover change. Changes in SOC are better studied for land cover transitions involving agriculture, and for that reason there is a different set of coefficients for each of the main global climatic regions: Temperate Dry ($f = 0.80$), Temperate Moist ($f = 0.69$), Tropical Dry ($f = 0.58$), Tropical Moist ($f = 0.48$), and Tropical Montane ($f = 0.64$).

4. Compute relative different in SOC between the baseline and

Execute locally Cancel Help

6. **Processing: calculating change in soil organic carbon**. This processing tool in QGIS is used to calculate the change in soil organic carbon (SOC) based on the land cover maps and the climate regime selected in the previous step.



7. **Processing: calculating change in soil organic carbon**. This processing tool in QGIS is used to calculate the change in soil organic carbon (SOC) based on the land cover maps and the climate regime selected in the previous step.

- ■■■■■■■■■■■■■■■■■■■■ ■■■■■■ ■■■■■■■■■■■■■■■■■■■■: 15 ■■■■■■.
- ** ■■■■■■■■■■ ■■■■■■■■■■■■■■■■■■■■ **: ■■■■■■■■■■■■■■■■■■■■

-
- QGIS 3.22.5
- Project Edit View Layer Settings Plugins Vector Raster Mesh Help
- Layers
- ## Recent Projects
- ## Project Templates
- New Empty Project**
- EPSG:4326 - WGS 84
- Drought - Vulnerability and exposure**
- Drought vulnerability**
- Execute remotely
- Calculate indicators of drought vulnerability consistent with UNCCD S03 Good Practice Guidance
- Drought vulnerability summary table**
- Execute locally
- Summarize drought indicators in alignment with UNCCD S03 reporting requirements
- UNCCD Reporting - Summarize data for ...
- SDG 11.3.1 - Urban change and land ...
- Experimental
- New QGIS version available: Visit <https://download.qgis.org> to get your copy of version 3.22.5
- Browser Layers
- Type to locate (Ctrl+K)
- Coordinate
- Scale 1:59,708,580
- Magfilter 100%
- Rotation 0.0 °
- Render
- EPSG:4326

50° 00' 00" N 50° 00' 00" W. The station is located in the middle of the Labrador Current, south of the Grand Banks. The station is located in the middle of the Labrador Current, south of the Grand Banks. The station is located in the middle of the Labrador Current, south of the Grand Banks.

Q Calculate Standardized Precipitation Index (SPI)

Hazard and Exposure indicators

Initial year:

Final year:

Lag (months):

Precipitation dataset

☒ GPCP

☐ CHIRPS

Vulnerability indicator

☒ Include JRC Vulnerability Index

Current region: colombia-all-regions

 Change region

Execution name:

[Schedule remote execution](#) [Cancel](#) [Help](#)

Calculate Drought Vulnerability Indicators

Calculate indicators that can be used to assess drought vulnerability, consistent with Good Practice Guidance from UNCCD on Strategic Objective 3.

In addition to indicators of drought derived from precipitation data (using the Standardized Precipitation Index), this tool also can provide access to a drought vulnerability dataset for 2018, produced by the Joint Research Commission (JRC) of the European Commission. This dataset is most useful for global-scale assessments.

For further recommendations on assessing drought vulnerability, we recommend users review the recommendations of the Tools4LDN project, available in [English](#) and [Spanish](#) from the project website.

[More information](#)

[illegible]

Note

15.3.1 **RESEARCH DESIGN**

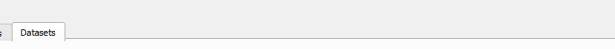
[illegible]

Note

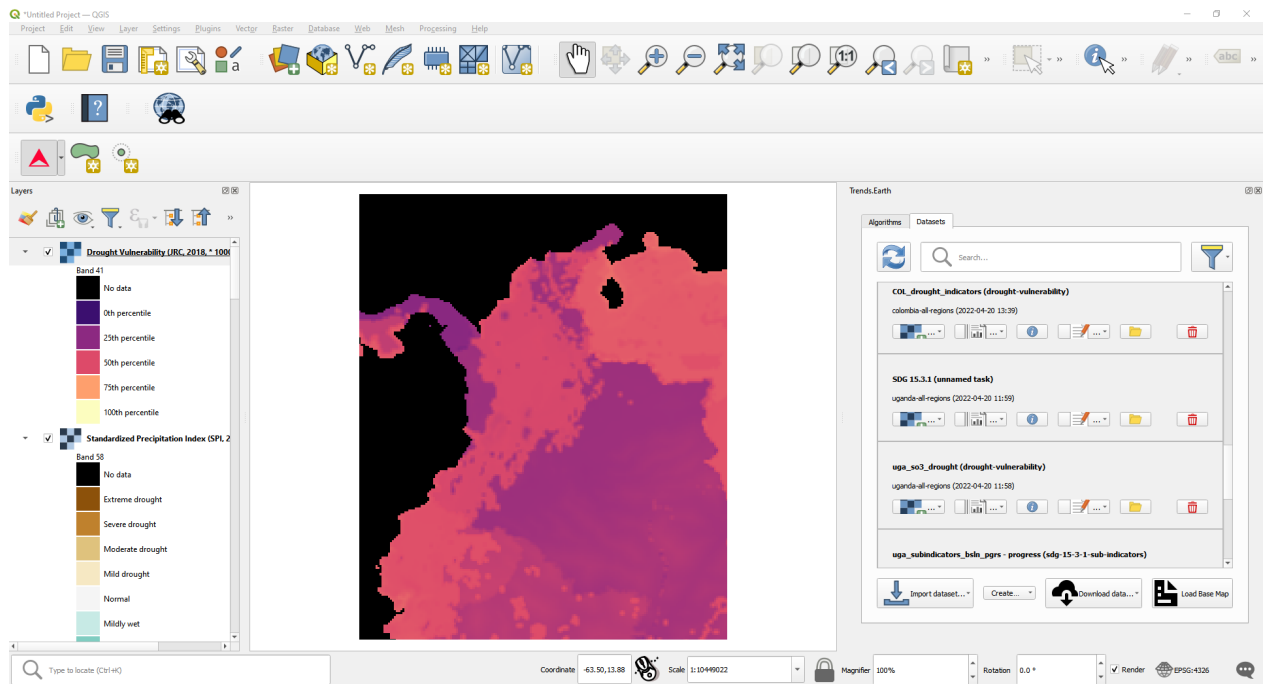
XXXXXXXXXXXXX X XXX, XXXXXX

..... «.....»,

6. [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED], [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]



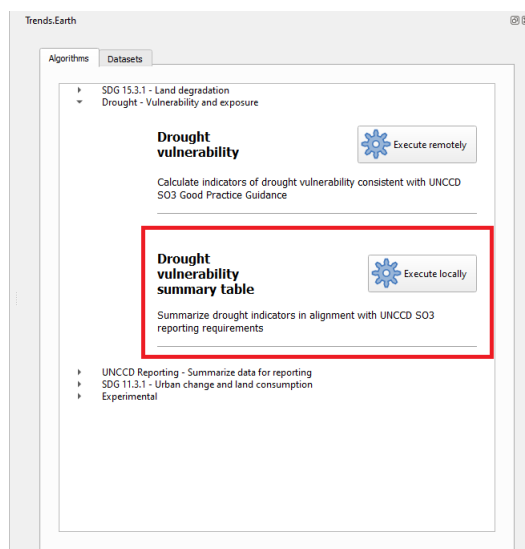
7. The default data: Standardized Precipitation Index for all epochs, JRC's Drought Vulnerability Index for 2018, and population disaggregated by gender, will be added to the map for the region of interest.



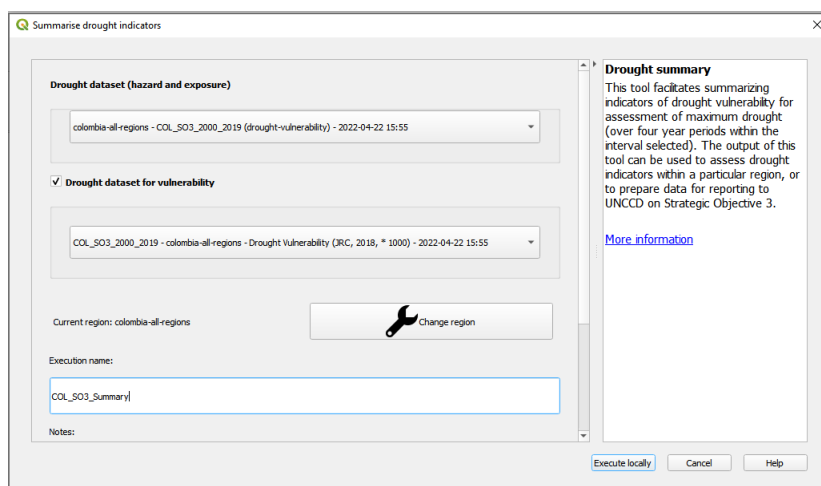
- **注意：**在训练过程中，如果发现模型在验证集上的性能下降，可能是过拟合，可以尝试使用早停法（Early Stopping）来防止过拟合。
- **数据增强：**在训练过程中，可以使用数据增强技术来增加训练数据量，提高模型的泛化能力。
- **模型选择：**在训练过程中，可以根据模型的性能来选择合适的模型，例如使用交叉验证来评估模型的性能。

THE UNITED STATES DEPARTMENT OF JUSTICE
 OFFICE OF THE ATTORNEY GENERAL
 WASHINGTON, D. C. 20530

- 112



Note

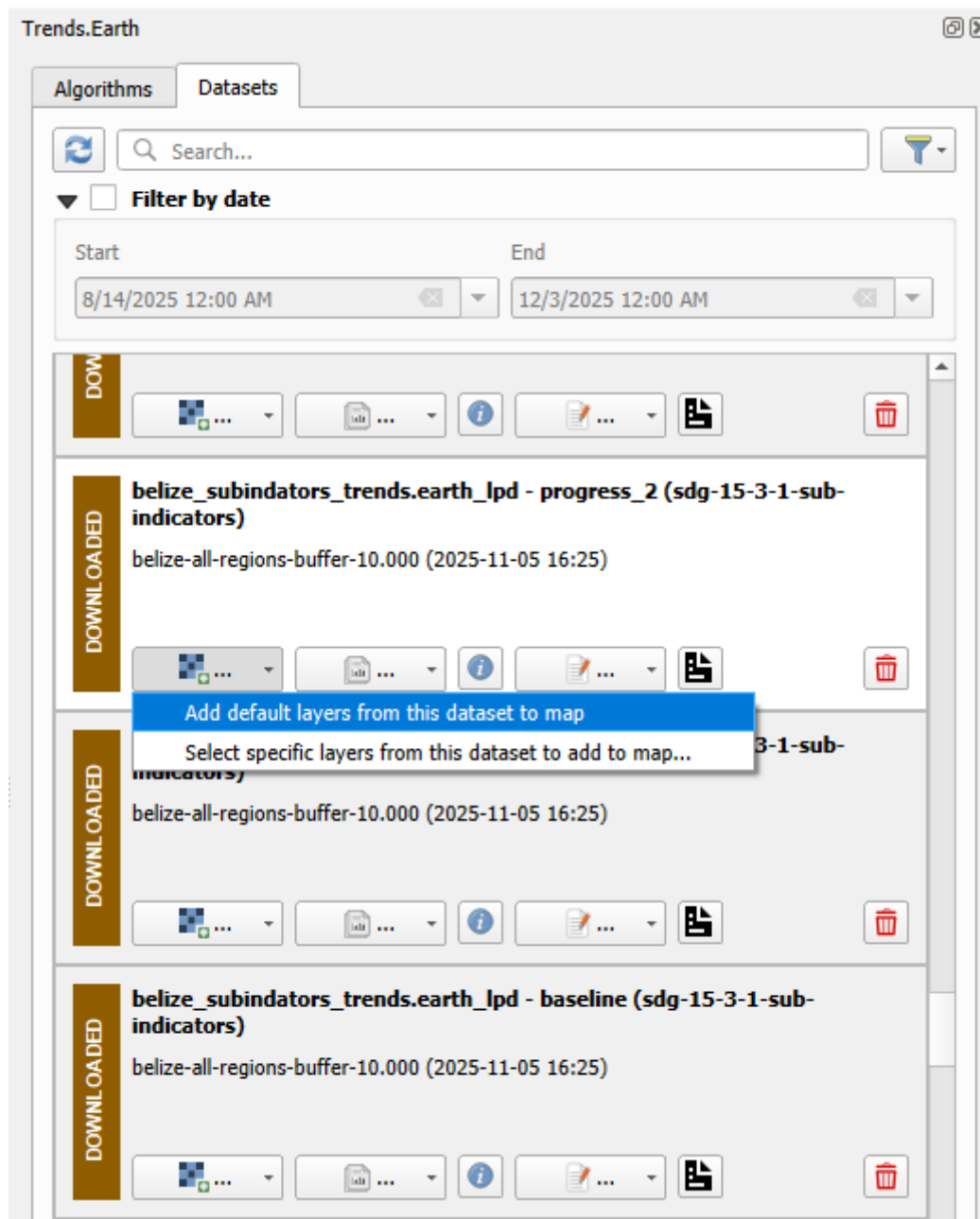
[illegible][illegible]

Note

[illegible]

■■■■■■■■■■ ■■■■■■ «■■■■■■■■■■», ■■■■ ■■■■■■ ■■ ■■■■■■■■■■■■ ■ ■■■■.

- [illegible]



7. **XXXXXXXX XX XXXXXXXXXXXXXXXX SO 3 XXXXXXX XXXXXXXXXXXX XX XXXXXXX**
XXXXXXXXXXXXXXXXXXXXXXXXXXXX.

Population values remain floating point from the remote download through the local summary raster, preserving fractional people per pixel. In the population-at-maximum-drought layers, negative values indicate exposure to drought; missing population data remains nodata (-32768).

UNCCD

- SDG 15.3.1 Indicator (Summary) | Land Degradation

Dataset for Strategic Objectives 1 and 2

Dataset for Strategic Objective 3 (tiers 1 and 2)

☒ Dataset for Strategic Objective 3 (tier 3)

Execution name:

Notes:

Generate UNCCD Report

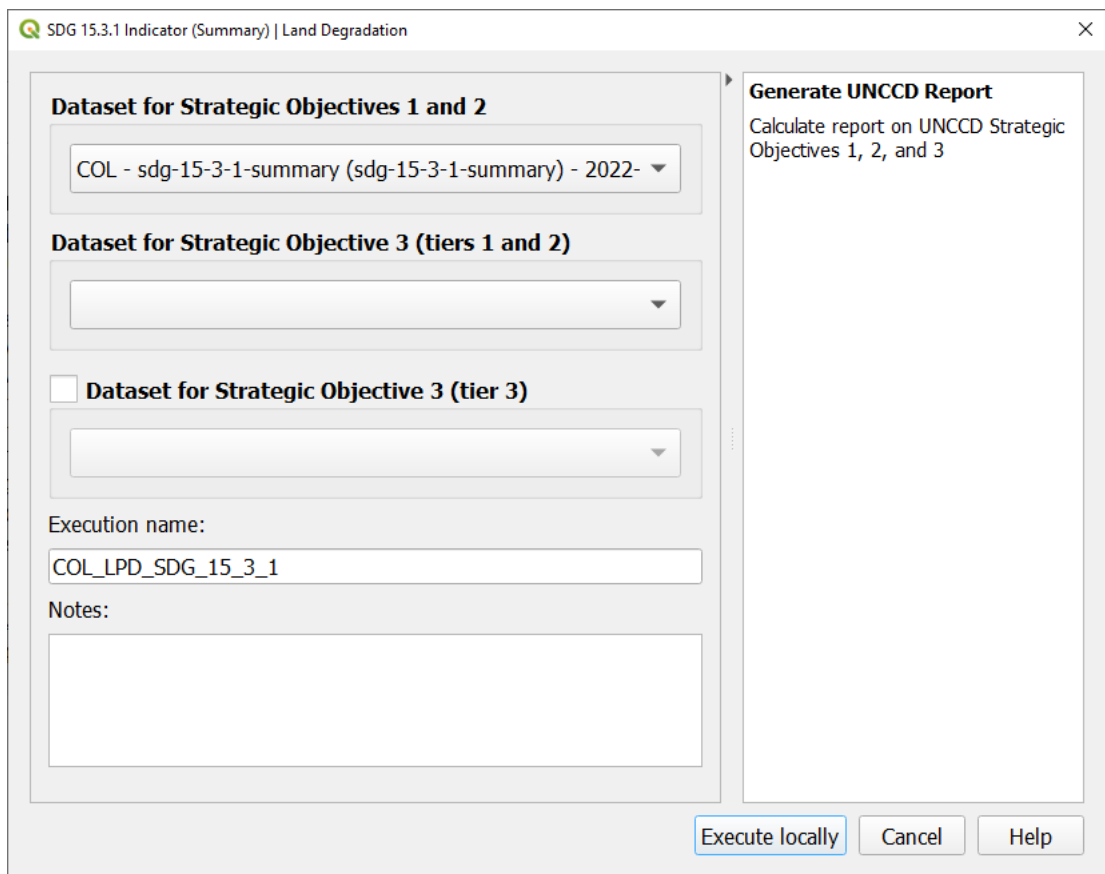
Calculate report on UNCCD Strategic Objectives 1, 2, and 3

Execute locally

Cancel

Help

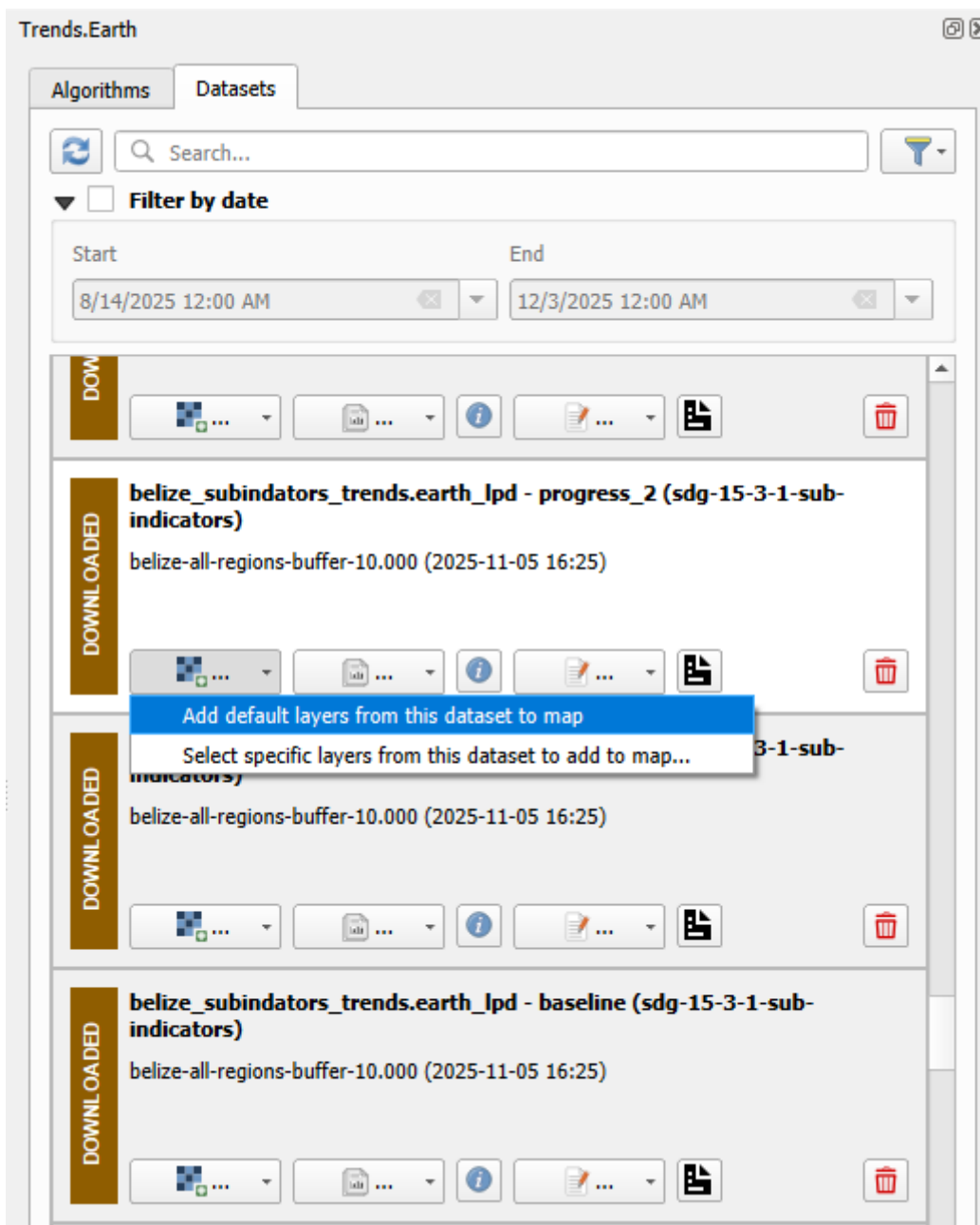
2. [REDACTED] [REDACTED] [REDACTED] [REDACTED], [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]. [REDACTED]
[REDACTED] [REDACTED] [REDACTED]. [REDACTED] [REDACTED]
[REDACTED]



- ### Note

[illegible]

- 116



- ### Note

■■■■■ (■■■ 11.3.1)

□ □ □ □ □ □ □ □ □ □ □ □ □ □

- [illegible]

Note

[illegible]

Note

[illegible]

Urban Mapper

Mapper<<https://geflanddegradation.users.earthengine.app/view/trendsearth-urban-mapper>>`_.

Trends.Earth Urban

Mapper<<https://geflanddegradation.users.earthengine.app/view/trendsearth-urban-mapper>>`_.

1. [Trends.Earth Urban Mapper](#), [QGIS](#).
2.

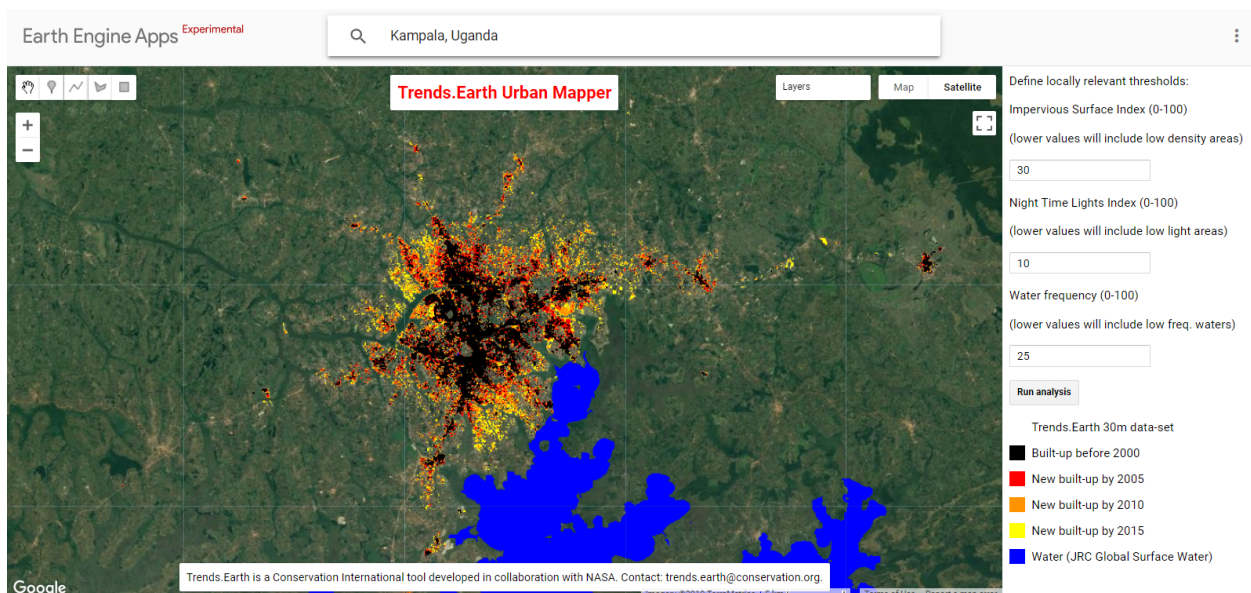
Urban areas are defined as areas with a population density of at least 100 people per square kilometer. This is a common threshold used in many studies. However, the definition of urban areas can vary significantly between different studies and regions. For example, some studies may use a higher threshold, such as 200 people per square kilometer, while others may use a lower threshold, such as 50 people per square kilometer. The choice of threshold can have a significant impact on the results of the analysis, so it is important to be clear about the definition of urban areas used in your study.
3.

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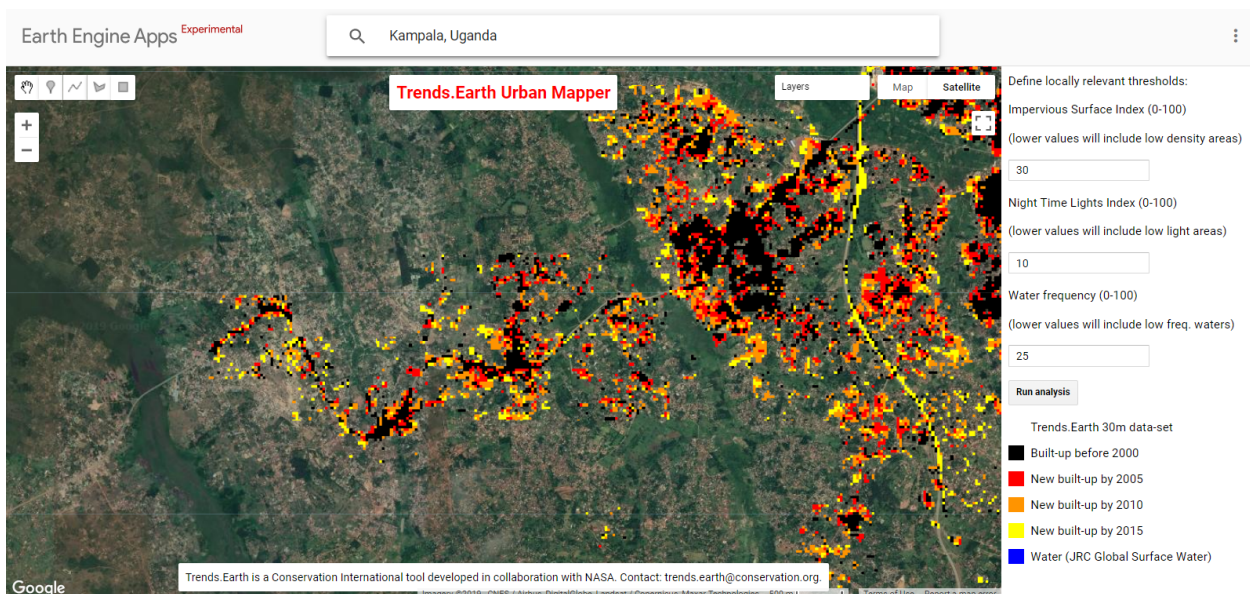
[illegible]

REDAZIONE E AMMINISTRAZIONE

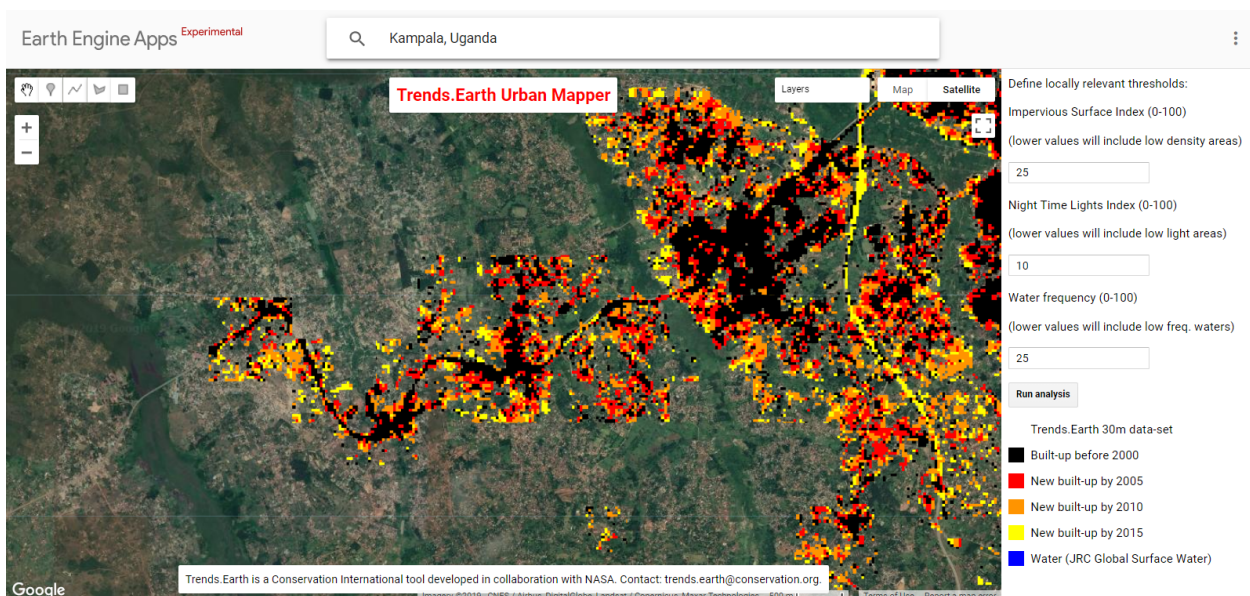
- **2000**: **2000** **2000**, **2000** **2000**.
- **2000**: **2000** **2000** **2000**, **2000** **2000** **2000** **2000** **2000**.
- **2000**: **2000** **2000** **2000** **2000**, **2000** **2000** **2000** **2000** **2000**.
- **2000**: **2000** **2000** **2000** **2000**, **2000** **2000** **2000** **2000** **2000**.



4. [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED], [REDACTED] [REDACTED]
[REDACTED] [REDACTED]. [REDACTED] [REDACTED], [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED], [REDACTED] [REDACTED], [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] (ISI: 30,
NTL: 10, WFR: 25):

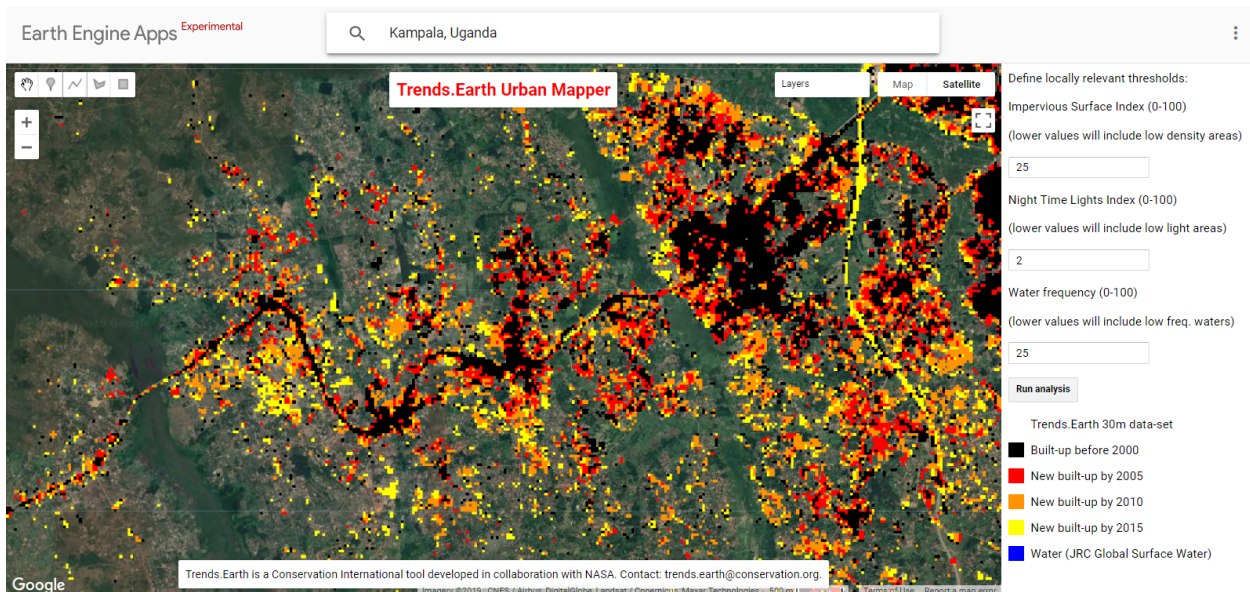
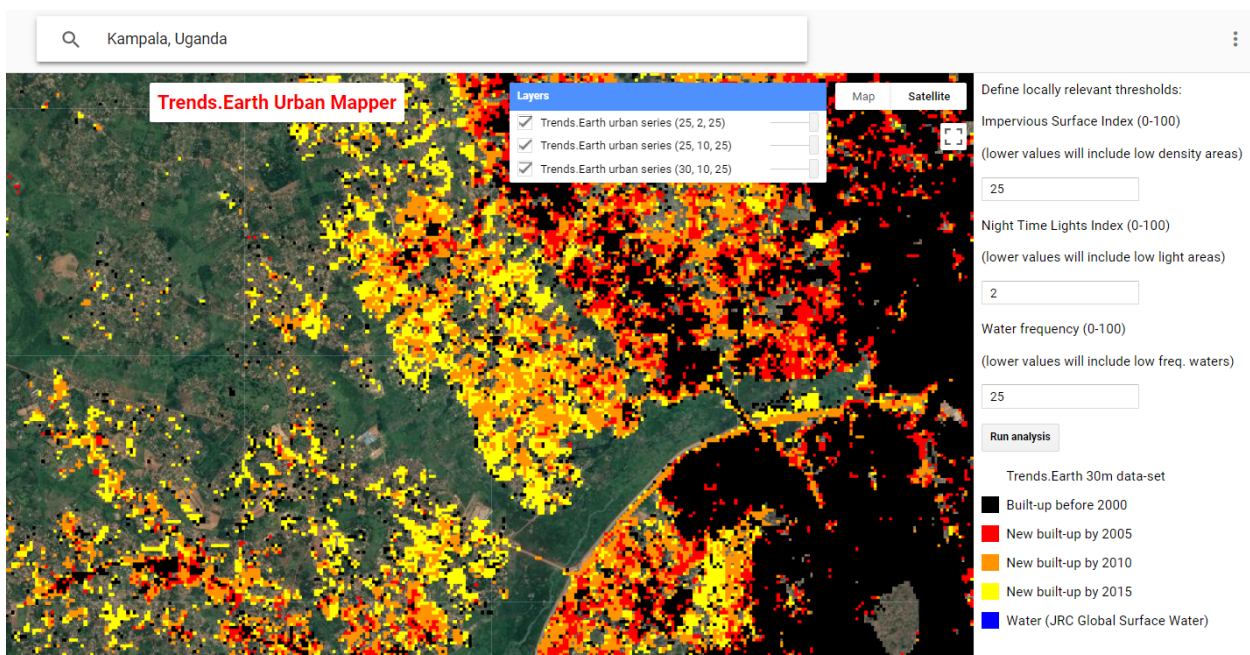


5. [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED], [REDACTED] [REDACTED] [REDACTED] [REDACTED] ISI [REDACTED] [REDACTED]
[REDACTED], [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED]. [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED] 30 [REDACTED] 25 [REDACTED] «[REDACTED] [REDACTED]».



6. [REDACTED], [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED], [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED], [REDACTED] [REDACTED] [REDACTED] [REDACTED].
[REDACTED] [REDACTED] [REDACTED], [REDACTED] [REDACTED] [REDACTED] «[REDACTED] [REDACTED]
[REDACTED]» [REDACTED] [REDACTED]. [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED], [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]. [REDACTED] [REDACTED] [REDACTED] [REDACTED]

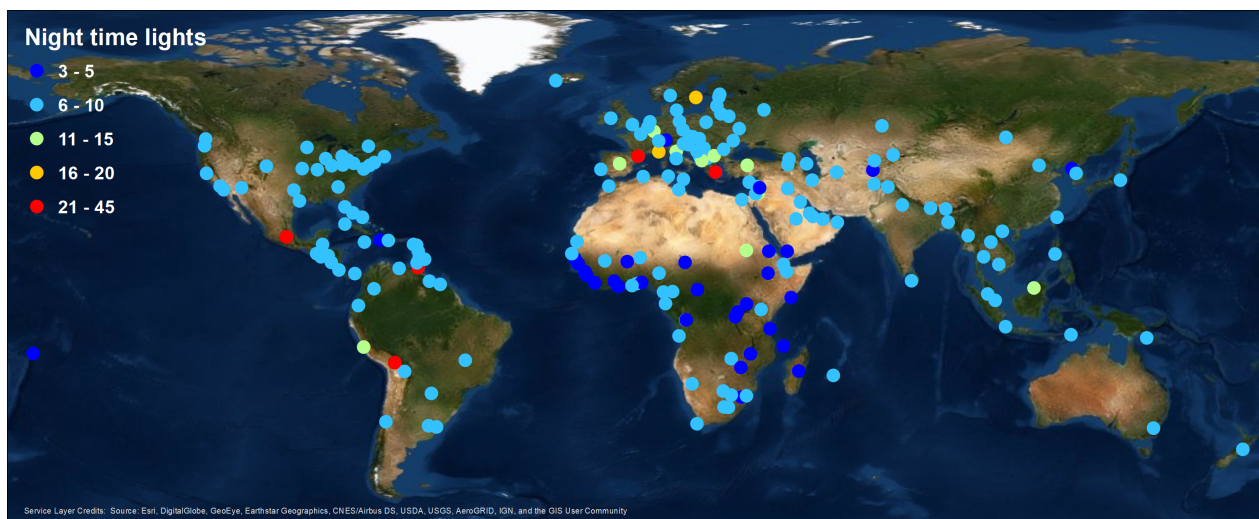
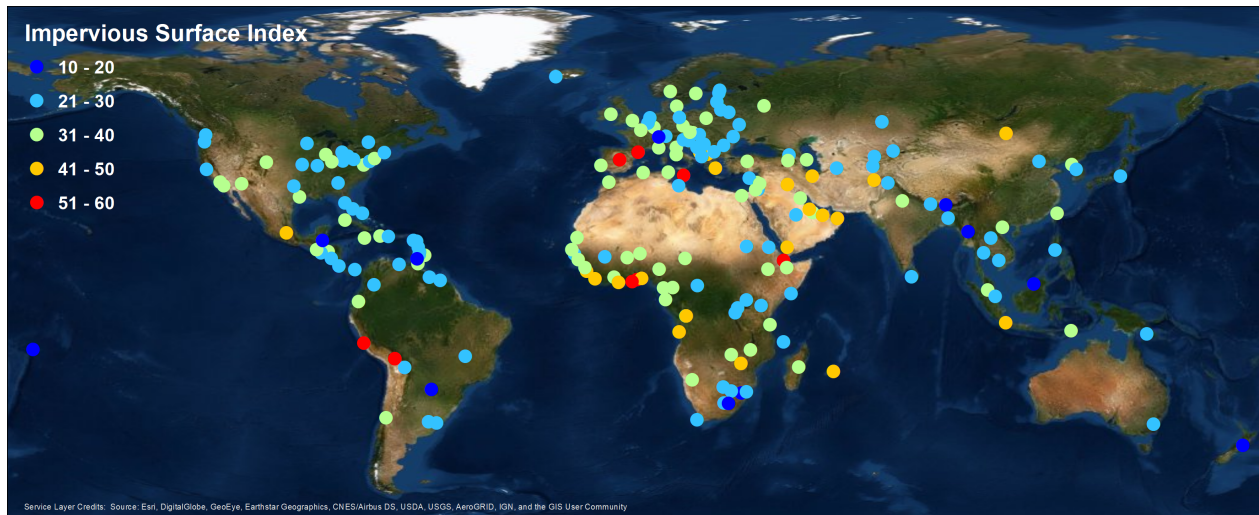
[REDACTED] 10 [REDACTED] 2 [REDACTED] «[REDACTED] [REDACTED]».

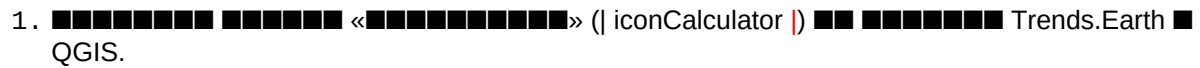
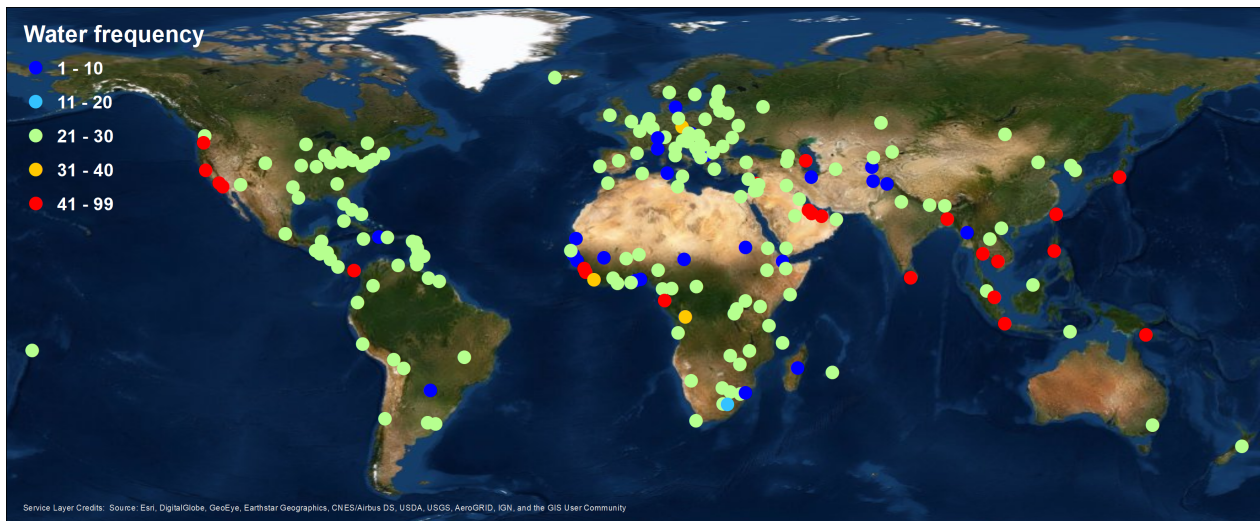
[illegible]

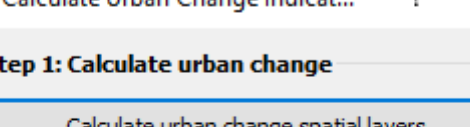
8. [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED],
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]. [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED], [REDACTED] [REDACTED], [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED], [REDACTED] [REDACTED] [REDACTED], [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED]. [REDACTED] [REDACTED]

□ □ □ □ □ □ □ □ □ □ □ □ □ □

224







Calculate Urban Change Indic... ? X

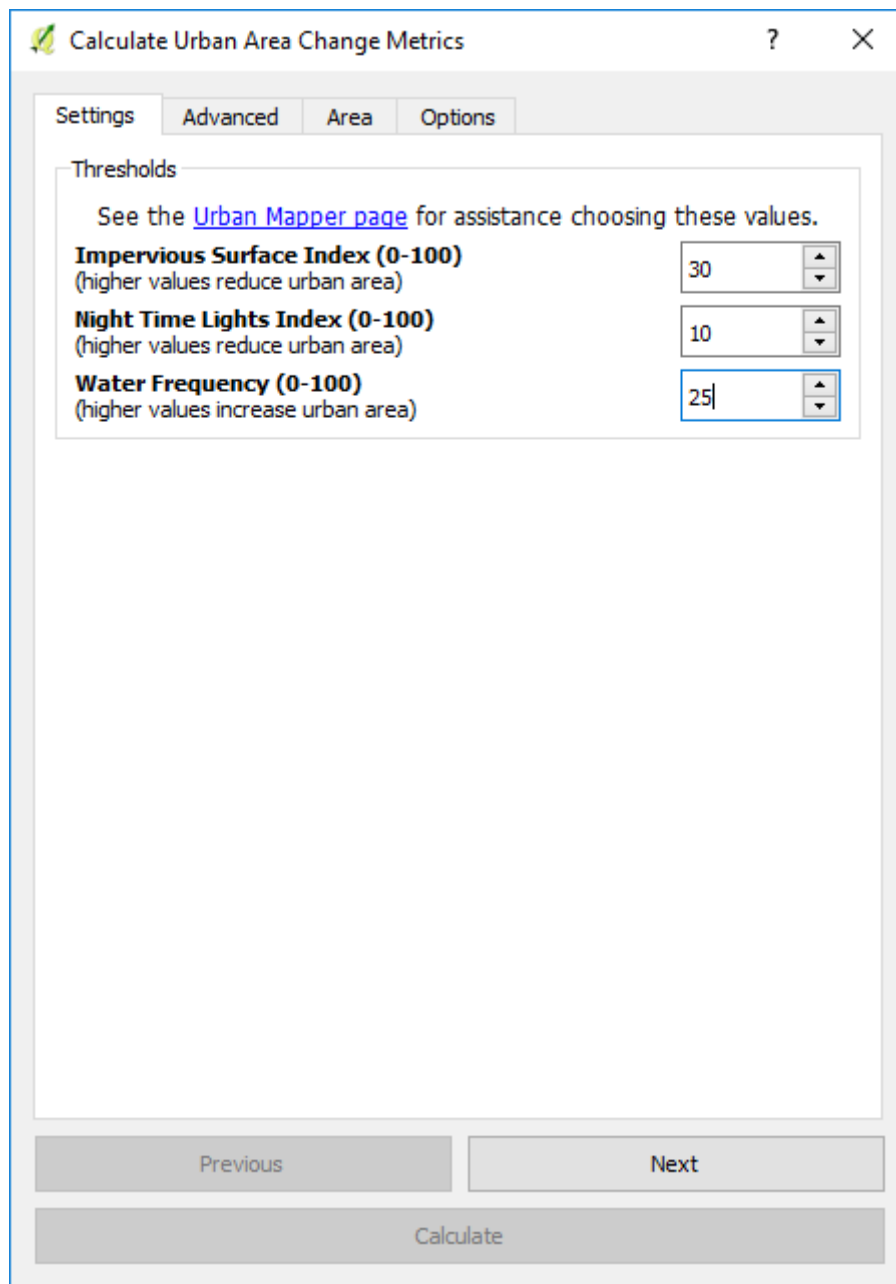
Step 1: Calculate urban change

Calculate urban change spatial layers

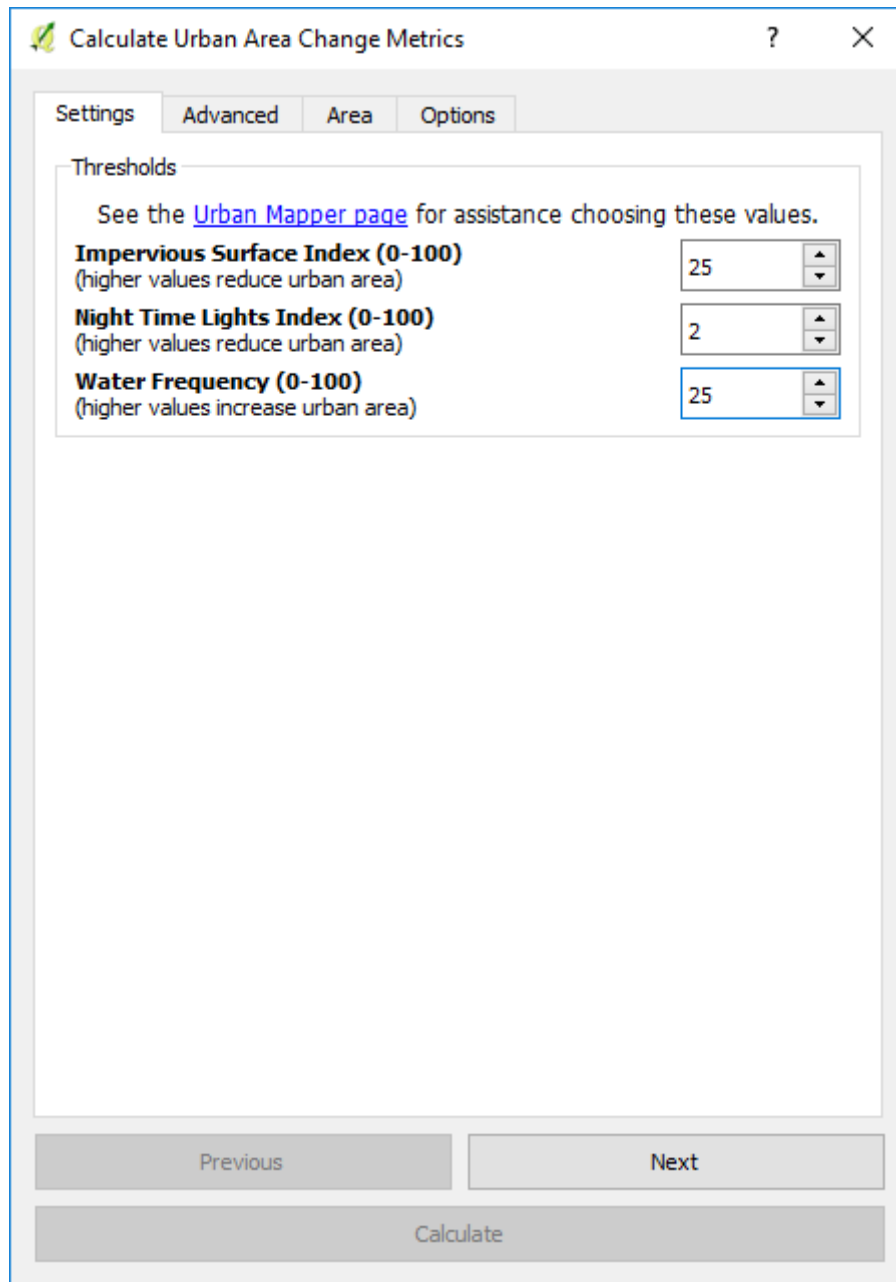
Step 2: Calculate urban change summary table

Calculate urban change summary table for city

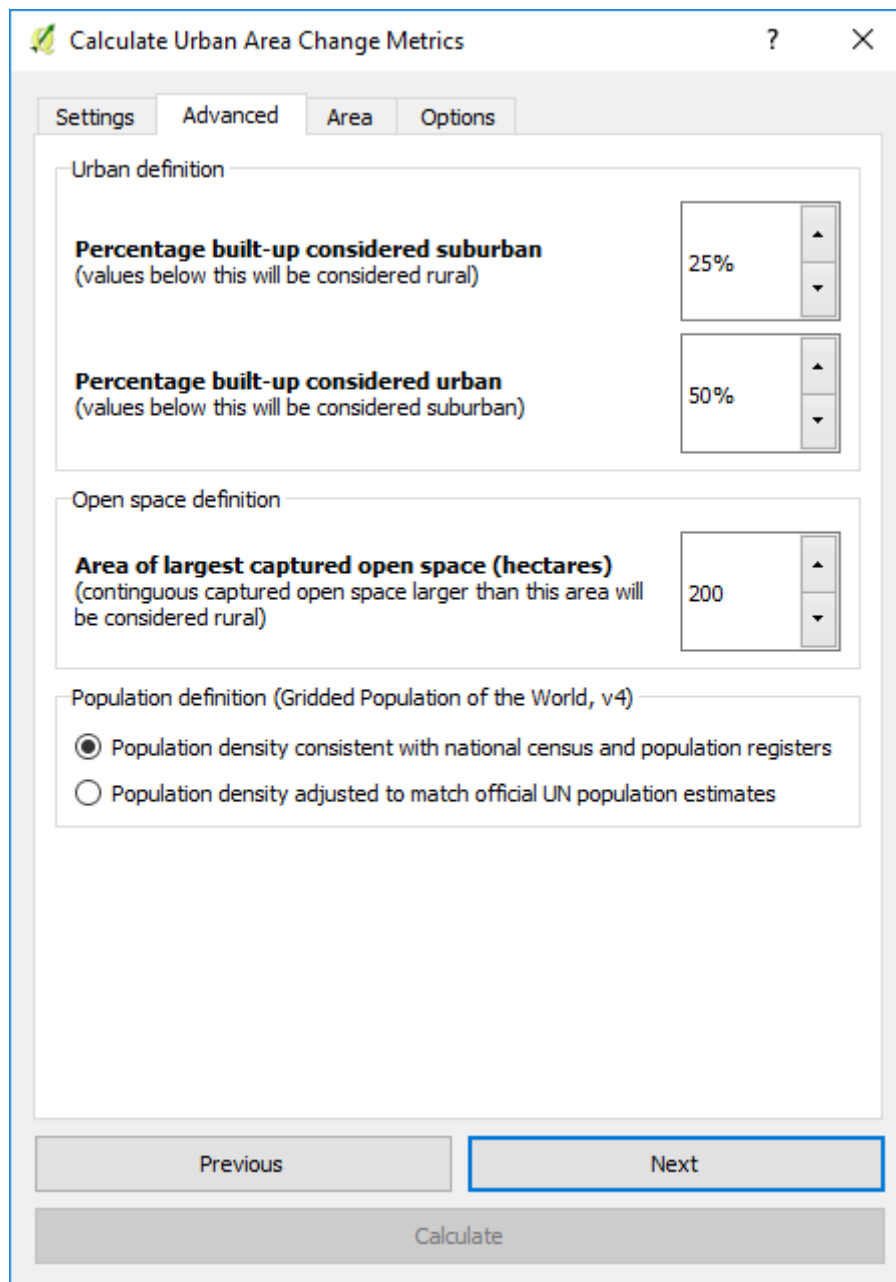
- 124



125



- 126



7. «»
, .
 ,
 ,
.

127

8. [REDACTED] «[REDACTED]» [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED], [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED].


Calculate Urban Area Change Metrics
?
×

Settings

Advanced

Area

Options

Metadata

Task name:

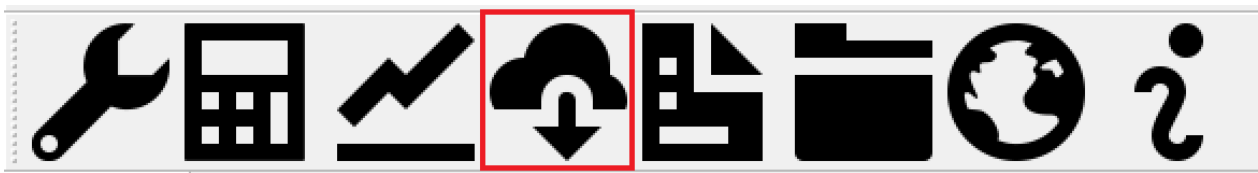
Notes:

Previous

Next

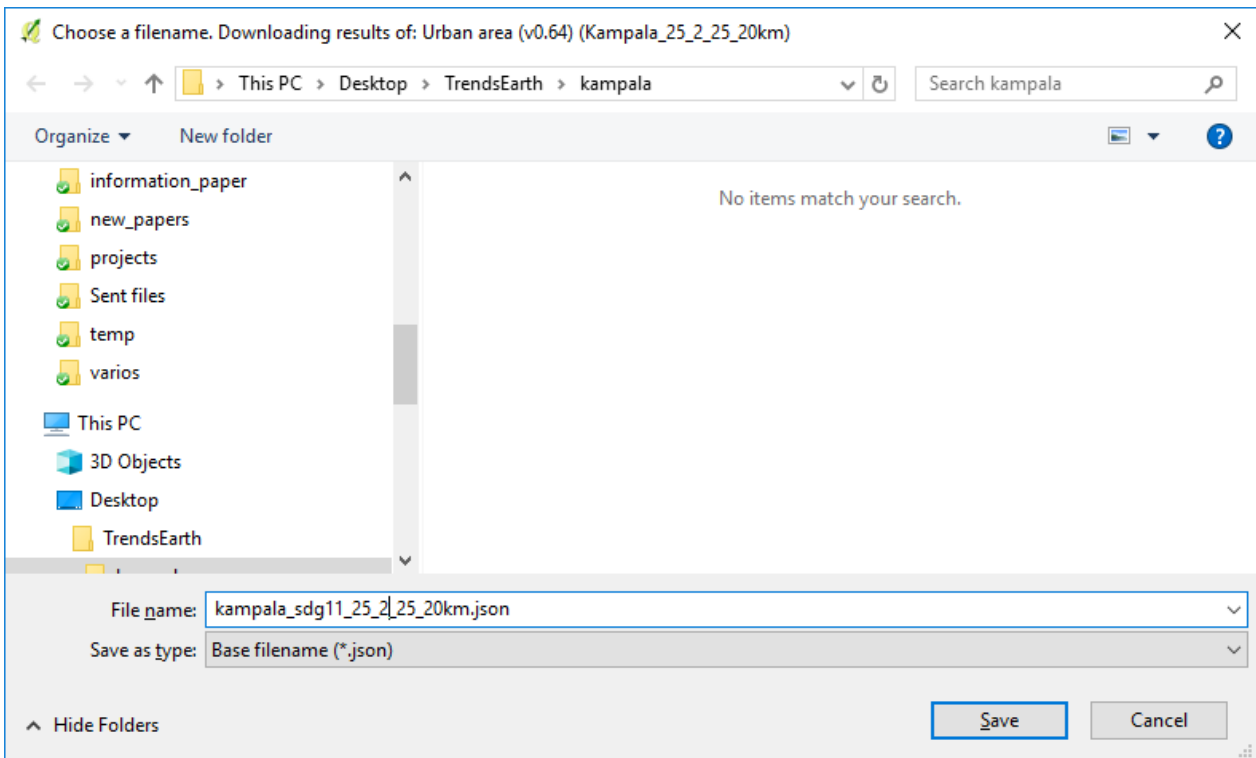
Calculate

129



Google Earth Engine 是一个基于云计算的地理信息处理平台，它允许用户通过简单的脚本操作大量的卫星遥感数据。该平台由 Google 开发，旨在降低地理信息科学研究的门槛，使研究人员能够快速获取和处理海量的遥感数据。Google Earth Engine 提供了强大的数据分析和可视化功能，支持多种遥感数据的集成和分析。用户可以通过简单的脚本操作，实现对全球范围内的遥感数据进行快速处理和分析。该平台还支持多种数据源的集成，包括 Landsat、Sentinel 等卫星遥感数据。Google Earth Engine 的界面友好，易于使用，适合不同层次的研究人员使用。通过该平台，研究人员可以快速生成高质量的遥感影像，并进行各种空间分析和建模。Google Earth Engine 的开放性和可扩展性使其成为地理信息科学领域的重要工具之一。用户可以通过该平台与其他研究人员进行合作和交流，共同推动地理信息科学的发展。Google Earth Engine 的文档和社区支持非常完善，用户可以轻松找到所需的信息和解决方案。通过该平台，研究人员可以高效地完成各种地理信息科学的研究任务，提升研究效率和成果质量。Google Earth Engine 的持续更新和优化使其始终保持领先地位，为用户提供更好的使用体验。通过该平台，研究人员可以充分利用云计算的优势，处理大规模的数据，实现更高效的研究工作。Google Earth Engine 的广泛应用和成功案例证明了其在地理信息科学领域的价值和重要性。通过该平台，研究人员可以更加便捷地获取和处理遥感数据，推动地理信息科学的发展和创新。Google Earth Engine 的开放性和可扩展性使其成为地理信息科学领域的重要工具之一。用户可以通过该平台与其他研究人员进行合作和交流，共同推动地理信息科学的发展。Google Earth Engine 的文档和社区支持非常完善，用户可以轻松找到所需的信息和解决方案。通过该平台，研究人员可以高效地完成各种地理信息科学的研究任务，提升研究效率和成果质量。Google Earth Engine 的持续更新和优化使其始终保持领先地位，为用户提供更好的使用体验。通过该平台，研究人员可以充分利用云计算的优势，处理大规模的数据，实现更高效的研究工作。Google Earth Engine 的广泛应用和成功案例证明了其在地理信息科学领域的价值和重要性。通过该平台，研究人员可以更加便捷地获取和处理遥感数据，推动地理信息科学的发展和创新。

10 ■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■, ■■■■■■■■ ■■ ■■■■■■■■ ■ ■■■■■■■■ ■■■■■■■
 . ■■■■■ ■■■■■■■■ «■■■■■■■■■ ■■■■■■■■■■». ■■■■■■■■■■ ■■■■■■■■■■
 ■■■■■, ■ ■■■■■■■■ ■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■ ■■ ■■■■■■■■■■ ■■■■■ ■
 ■■■■■■■■■■ ■■■■ ■■■■.

[illegible]



- Calculate Indicators

Trends.Earth tools

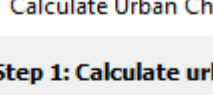
Land degradation indicator
(SDG indicator 15.3.1)

Urban change and land consumption indicators
(SDG indicator 11.3.1)

Experimental tools (BETA versions - these tools are still under development, and are supplied for testing only)

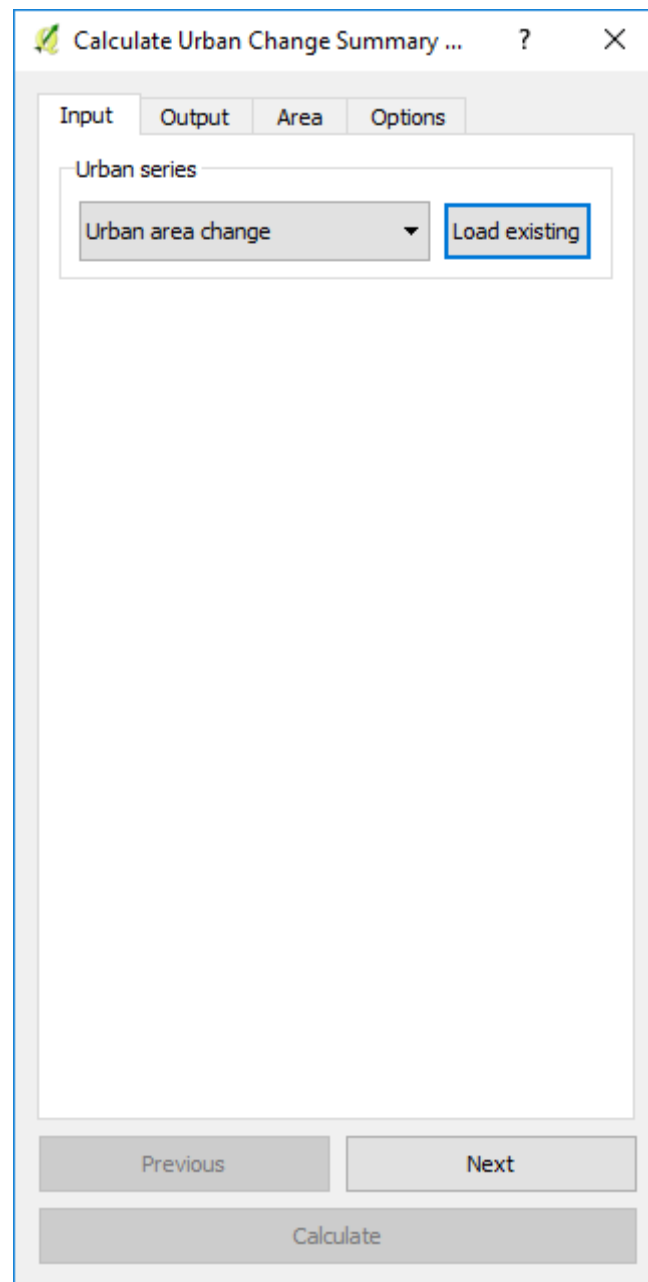
Total carbon (above and belowground, emissions from deforestation)

Potential change in biomass due to restoration (above and belowground woody)

- 
- Calculate Urban Change Indicators ? X
- Step 1: Calculate urban change**
- Calculate urban change spatial layers
- Step 2: Calculate urban change summary table**
- Calculate urban change summary table for city

- 132

□ □ □ □ □ □ □ □ □ □ □ □ □ □



5. **Формат:** **Форматировать «Таблицу», чтобы можно было скопировать и вставить в таблицу json и Excel.**

■■■■■■■■ ■■■■■■■■

Calculate Urban Change Summary ... ? X

Input

Output

Area

Options

Output file for indicator layer

/kampala/kampala_sdg11_final.json

Browse

Output file for summary table

/kampala/kampala_sdg11_final.xlsx

Browse

Previous

Next

Calculate

6. ■■■■■■■■: ■■■■■■■■■■ ■■■■■■■■ ■■■■ ■■■■■■■■

□ □ □ □ □ □ □ □ □ □ □ □ □ □

 Calculate Urban Change Summary ... ? X

Input

Output

Area

Options

Area to run calculations for

☒ Country / Region

First level

Uganda

Second level

☐ Region: All regions

☒ City: Kampala (Kampala)

Disclaimer: The provided boundaries are from [Natural Earth](#), and are in the [public domain](#). The boundaries and names used, and the designations used, in Trends.Earth do not imply official endorsement or acceptance by Conservation International Foundation, or by its partner organizations and contributors.

☐ Area from file

Click "Browse" to choose a file... Browse

☒ Apply a buffer to the chosen area

Buffer size (kilometers): 20.0

Previous

Next

Calculate

7. **Geometrische Daten:** Geometrische Daten werden als Polygone oder Linien gespeichert. Die Geometrie wird durch die Koordinaten der Eckpunkte definiert. Die Geometrie ist mit einem WGS84-Koordinatensystem verknüpft.

□ □ □ □ □ □ □ □ □ □ □ □ □ □

Calculate Urban Change Summary ... ? X

Input Output Area Options

Metadata

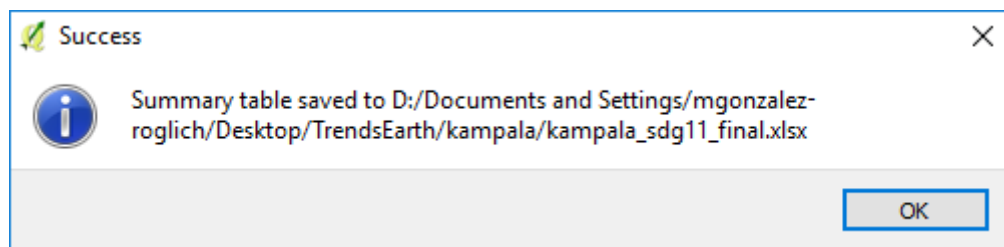
Task name:

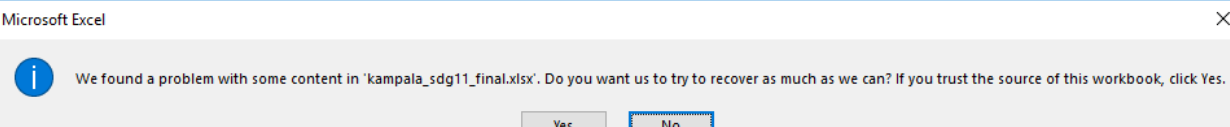
Notes:

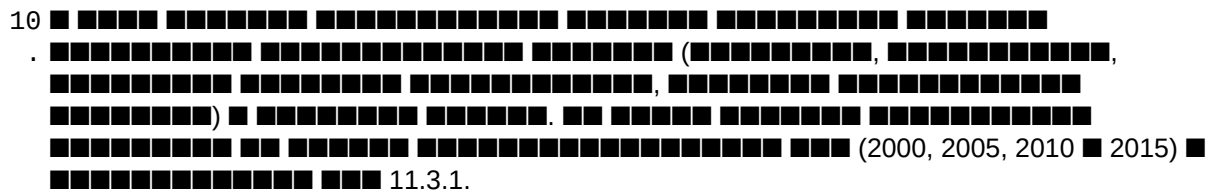
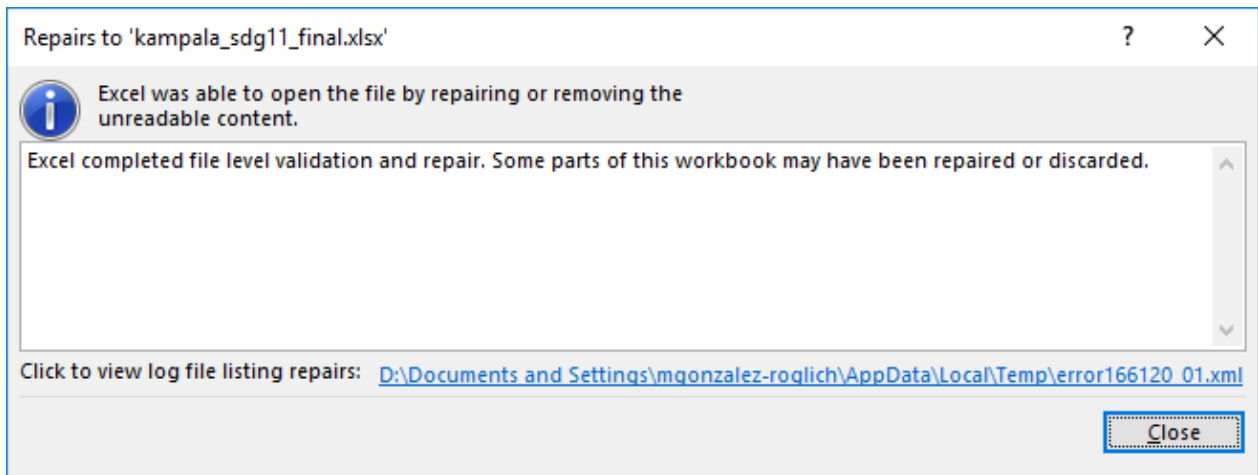
Previous Next

Calculate

8. **_____** **_____**: **_____** **_____** **_____** **_____** **_____**.
_____ «**__**».

[illegible]

[illegible]

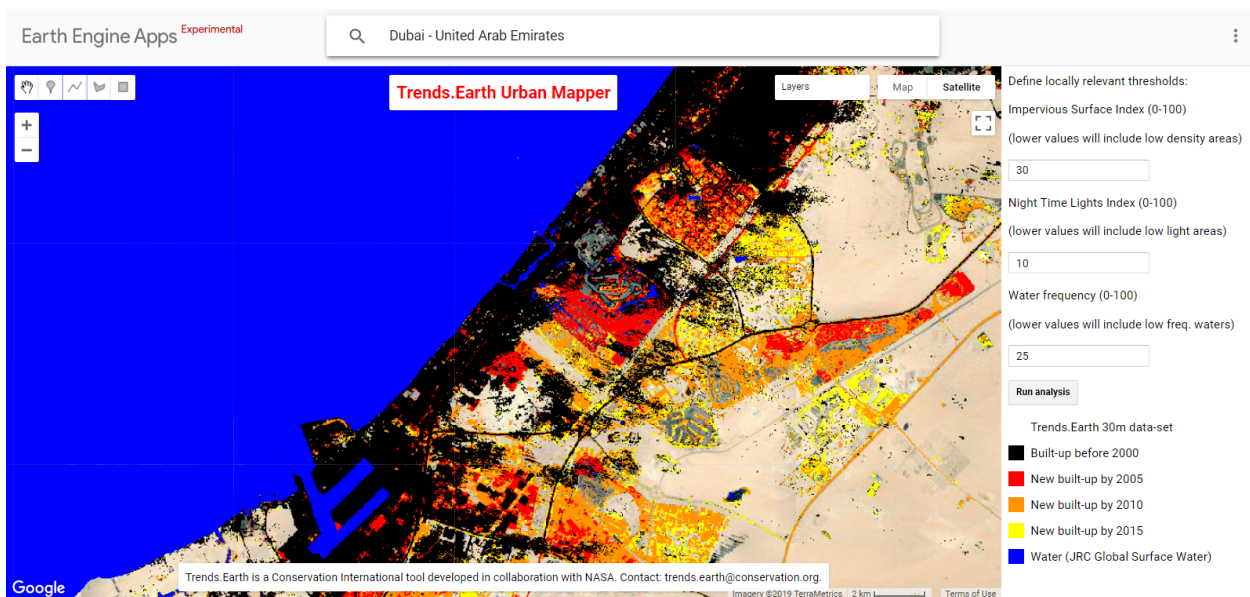


[illegible]

在 2020 年 12 月 15 日，我参加了由“Urban Mapper”项目组织的线上会议，会议主题是“Urban Mapper”项目的介绍。会议中，我了解到该项目的背景、目标、以及目前的研究进展。会议中，我了解到该项目的背景、目标、以及目前的研究进展。会议中，我了解到该项目的背景、目标、以及目前的研究进展。

Mapper» <<https://gefanddegradation.users.earthengine.app/view/trendsearch-urban-mapper>> ■
 ■ «■».





Earth Engine Apps

Experimental

+

-

Layers

Map

Satellite

Trends.Earth Urban Mapper

Define locally relevant thresholds:

Impervious Surface Index (0-100)

(lower values will include low density areas)

Night Time Lights Index (0-100)

(lower values will include low light areas)

Water frequency (0-100)

(lower values will include low freq. waters)

Run analysis

Trends.Earth 30m data-set

Built-up before 2000

New built-up by 2005

New built-up by 2010

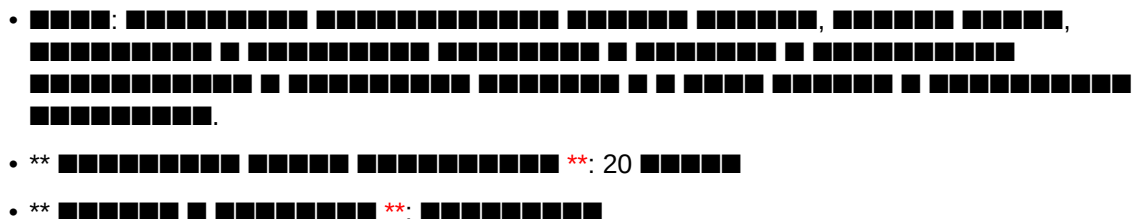
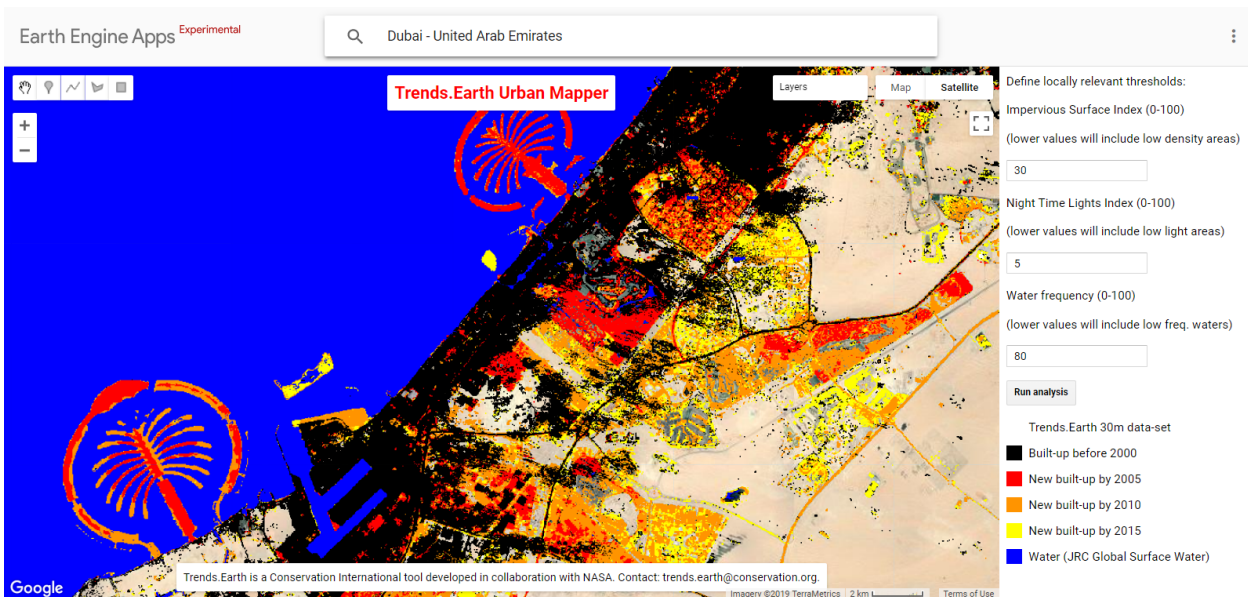
New built-up by 2015

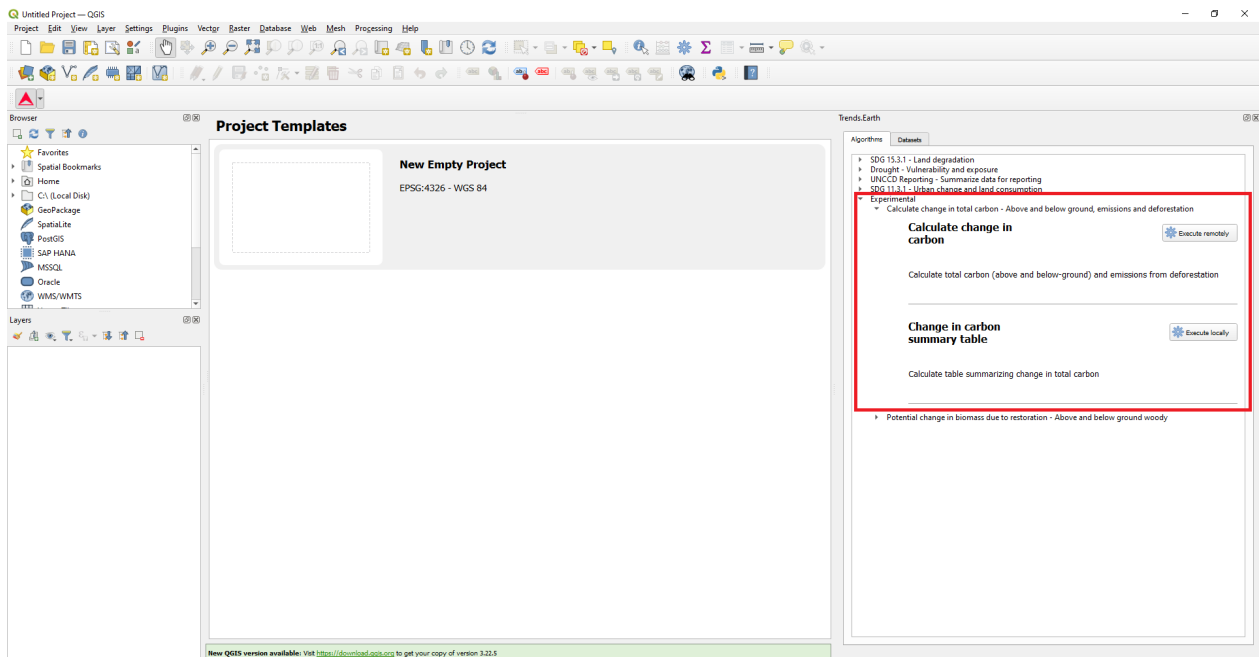
Water (JRC Global Surface Water)

Google

Trends Earth is a Conservation International tool developed in collaboration with NASA. Contact: trends.earth@conservation.org

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[illegible]



-

- ### Note

«Важнейшим фактором, способствующим развитию туризма в России, является развитие транспортной инфраструктуры. В 2000 году, по сравнению с 1999 годом, в России было построено 25–30% новых объектов транспортной инфраструктуры, что способствовало развитию туризма в России. В настоящее время в России продолжается строительство объектов транспортной инфраструктуры, что способствует развитию туризма в России.»

-
- Change region

Note

142

Conservation International Foundation, 1155 21st Avenue, New York, New York 10029-3099.

Trends.Earth
Trends.Earth
Trends.Earth

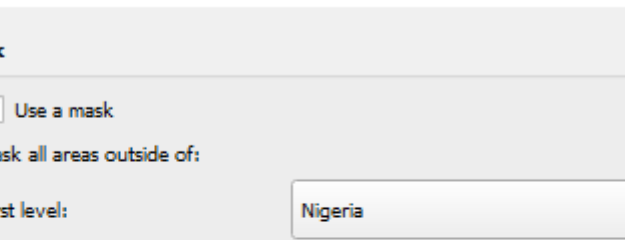
- [REDACTED] [REDACTED] [REDACTED] [REDACTED]: [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED], [REDACTED], [REDACTED]
[REDACTED] ** [REDACTED] [REDACTED] ** [REDACTED]. [REDACTED] [REDACTED] ** [REDACTED] **
[REDACTED] [REDACTED] [REDACTED] [REDACTED]. [REDACTED] [REDACTED]

[illegible]143

6. [REDACTED] [REDACTED] [REDACTED], [REDACTED], [REDACTED]
[REDACTED] [REDACTED]. [REDACTED] [REDACTED] [REDACTED] [REDACTED]
Google [REDACTED] [REDACTED] [REDACTED] 5 [REDACTED] 15 [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED] ([REDACTED] [REDACTED], [REDACTED] [REDACTED], [REDACTED]
[REDACTED] [REDACTED]).

1. ■■■■■■■■■■ ■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■, ■■■■■■ ■■■■■■■■■■ ■■■■ ■■
■■■■■■■■■■ ■■ ■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■ ■■■■■■.





Add basemap

Mask

☒ Use a mask

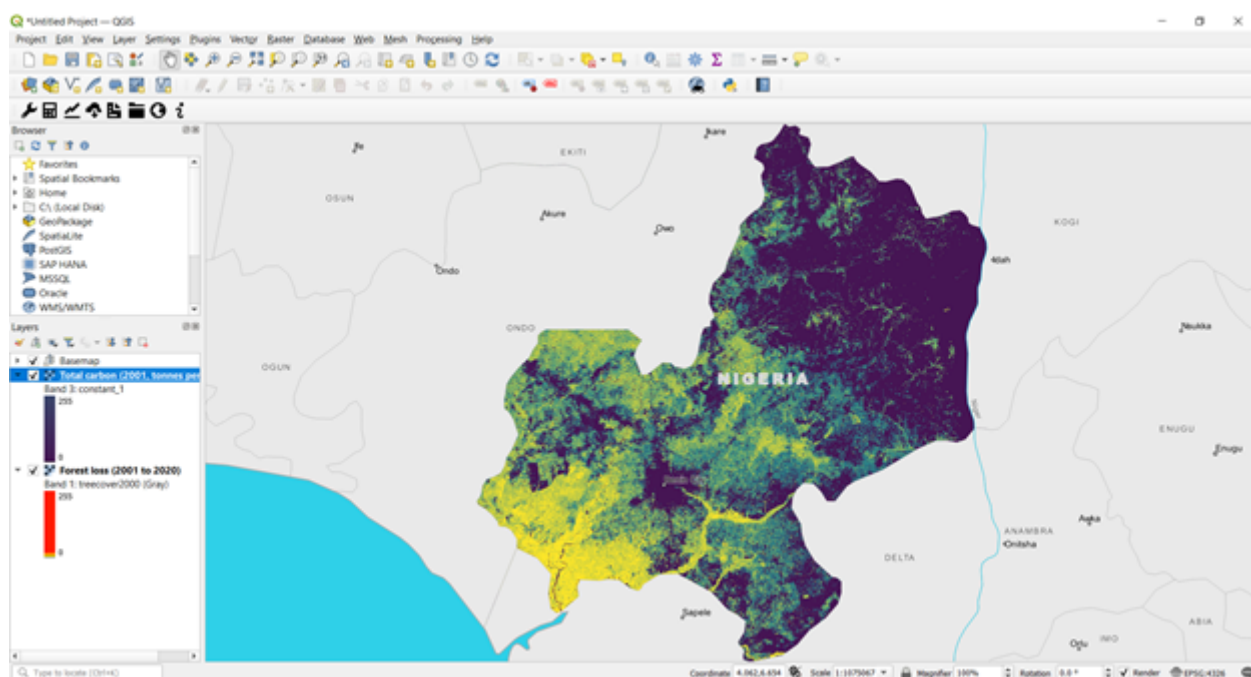
Mask all areas outside of:

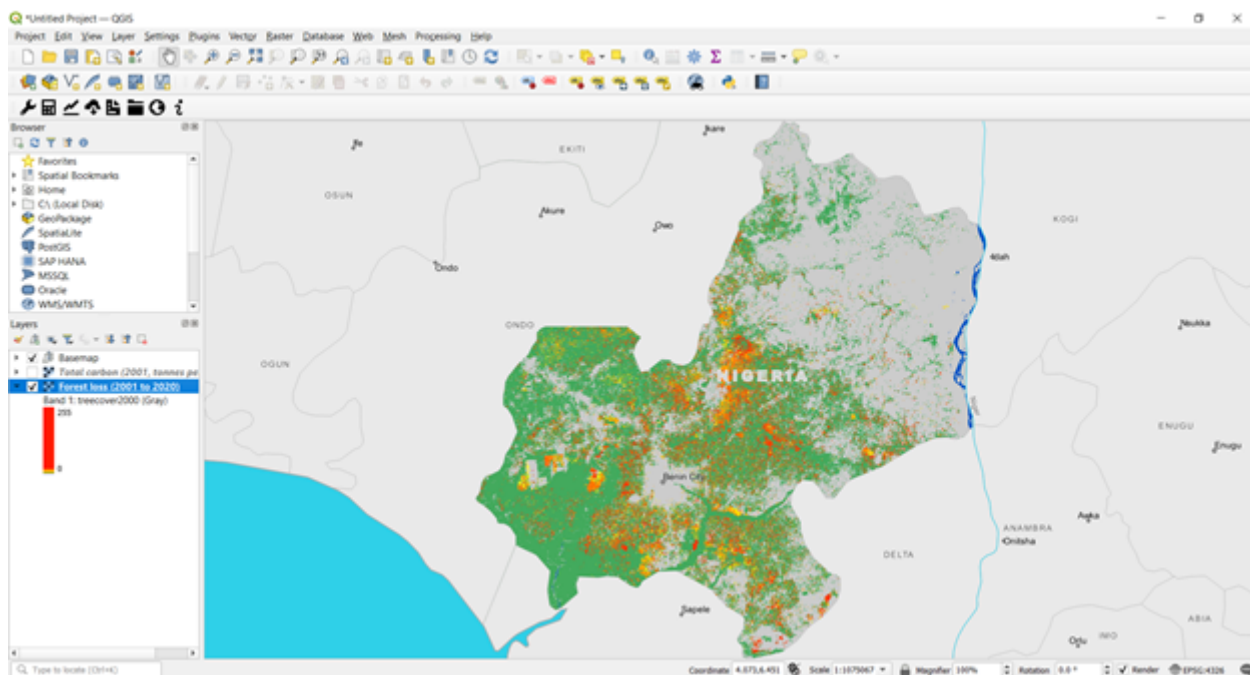
First level: Nigeria

Second level: Edo

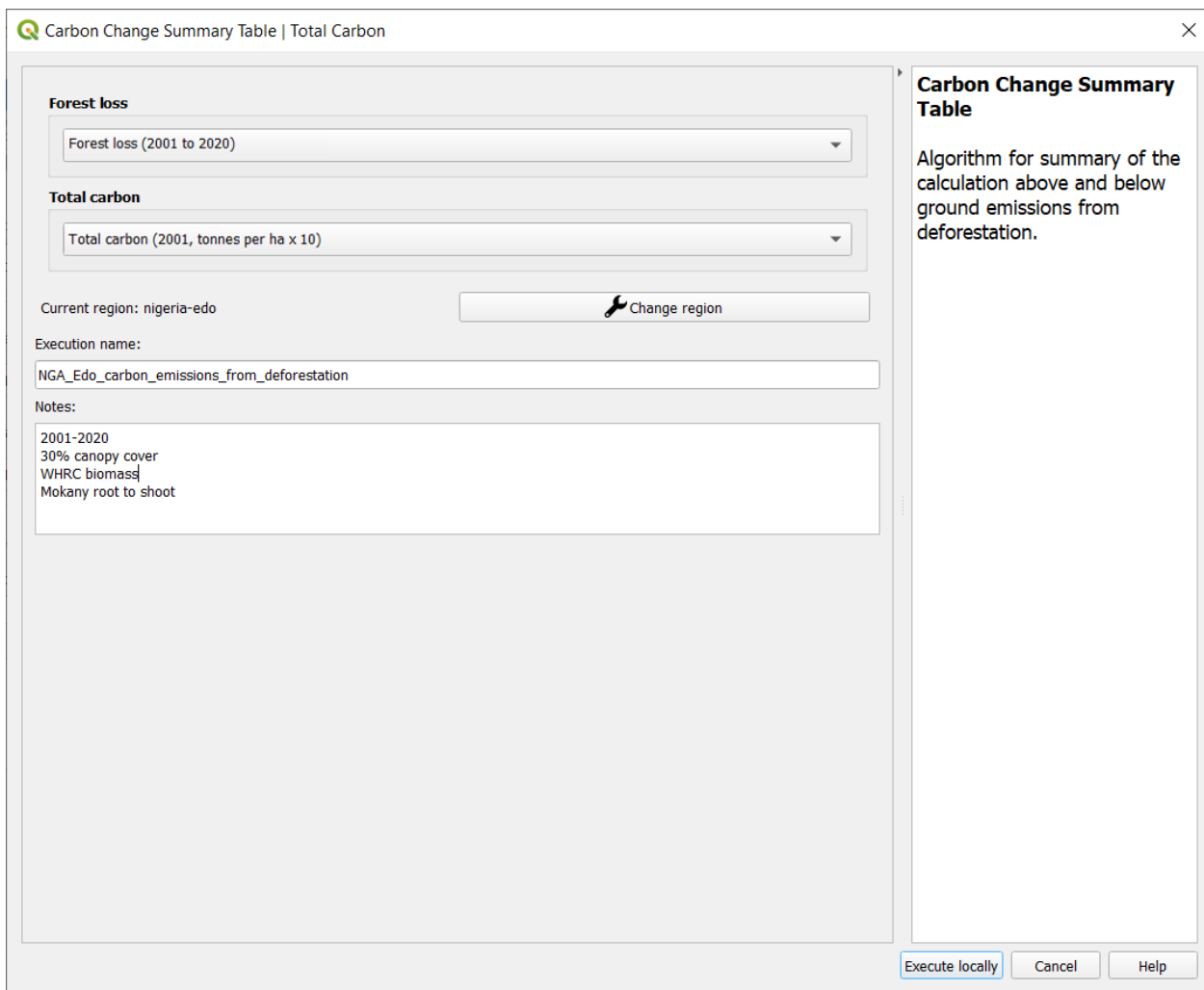
Disclaimer: The provided boundaries are from [Natural Earth](#), and are in the [public domain](#). The boundaries and names used, and the designations used, in trends.earth do not imply official endorsement or acceptance by Conservation International Foundation, or by its partner organizations and contributors.

OK Cancel

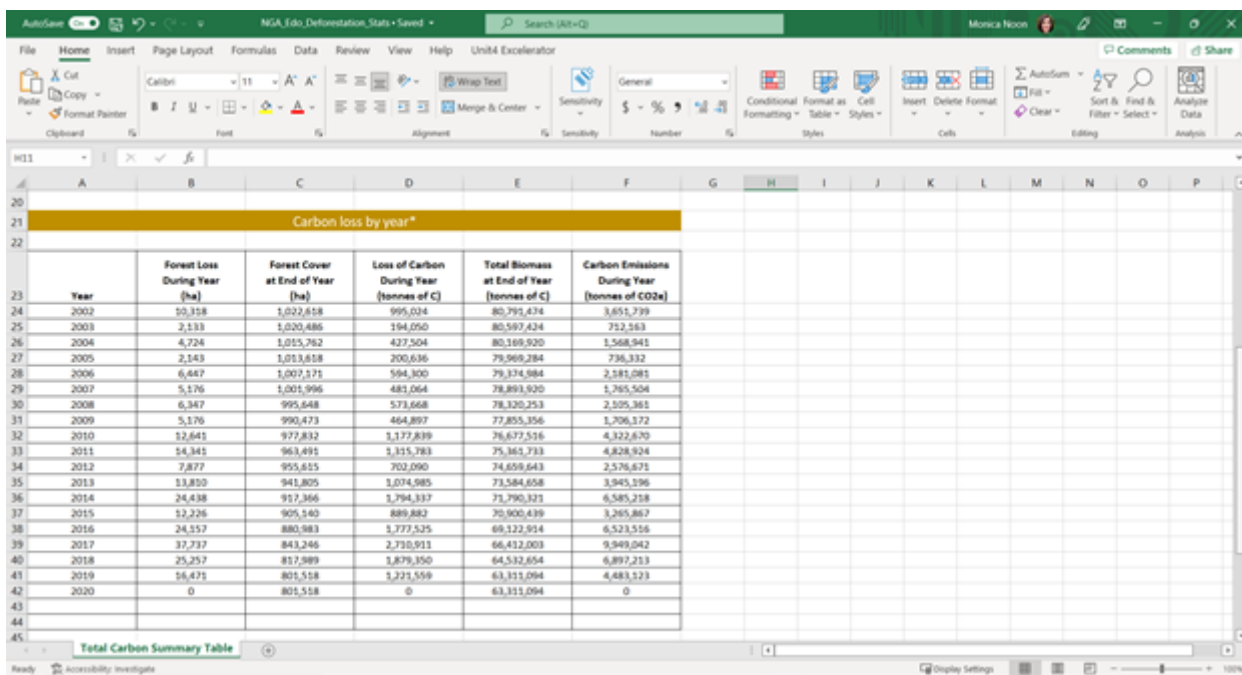
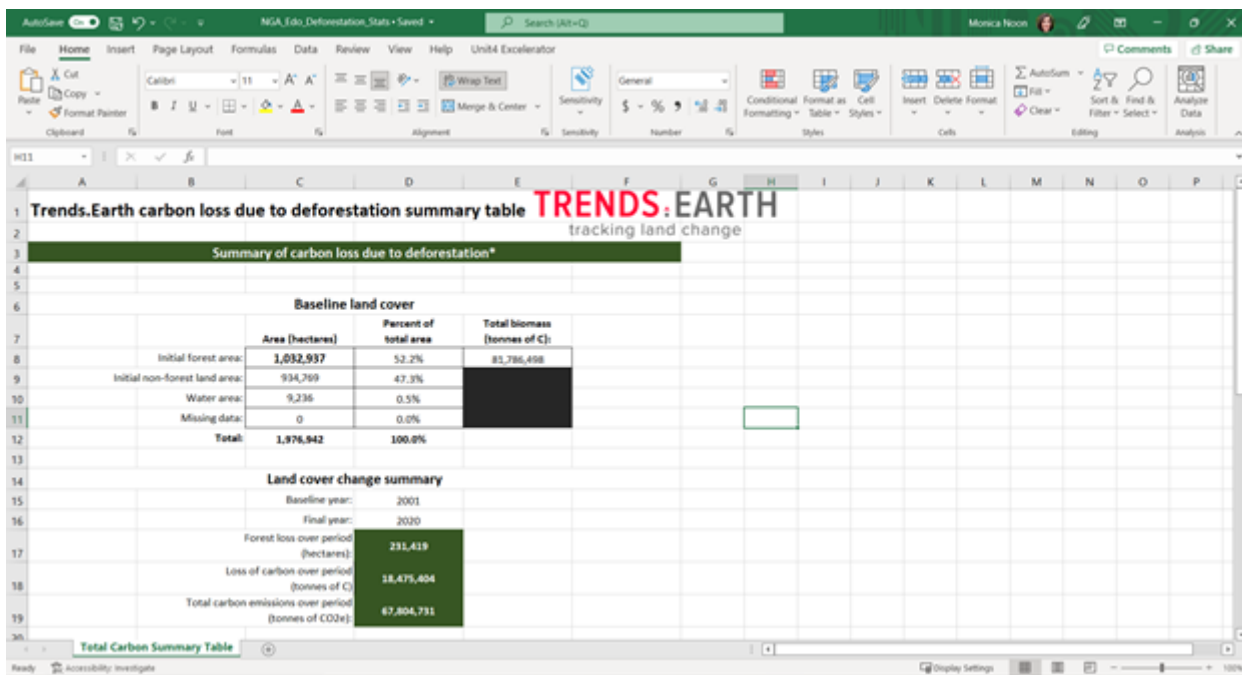


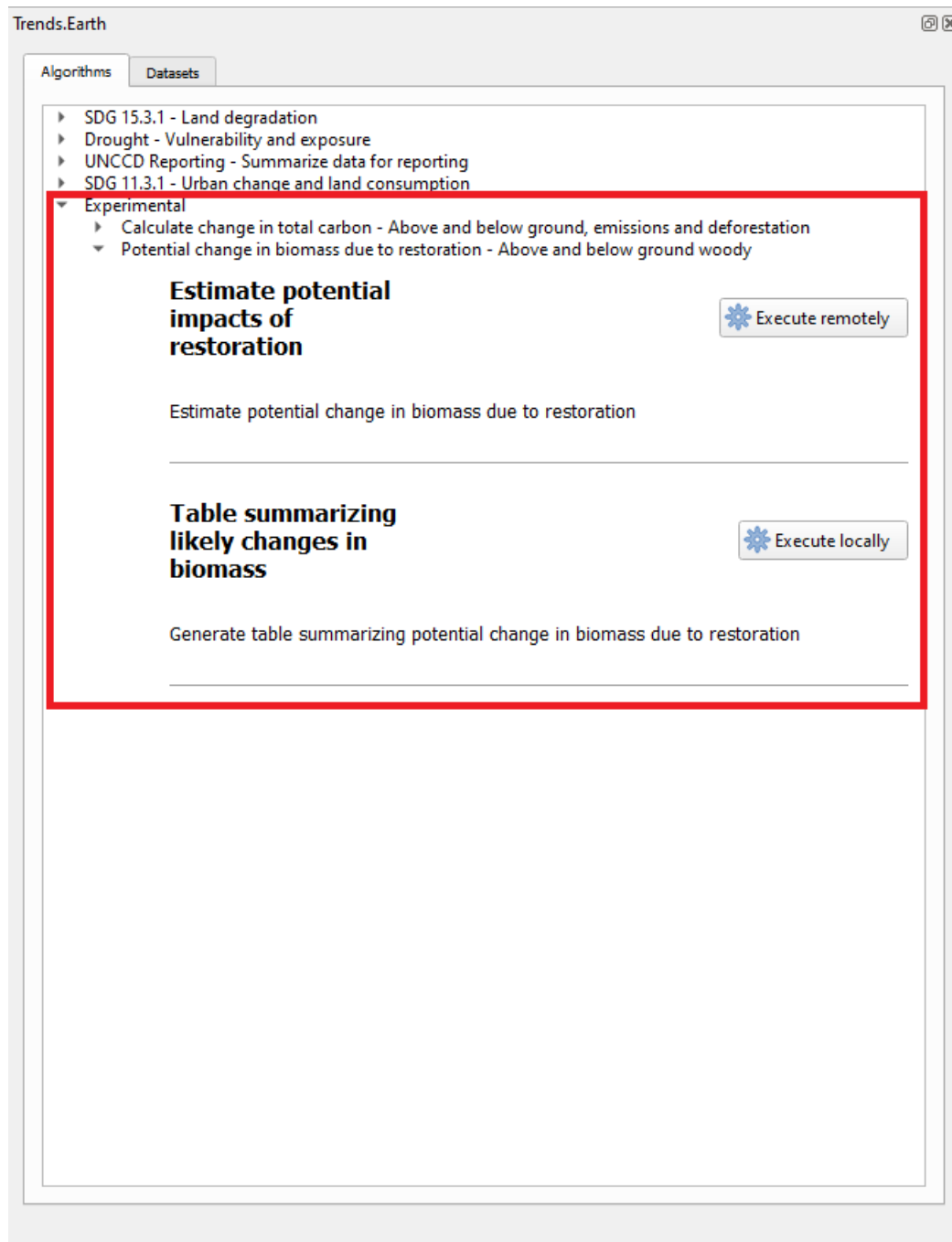


- 146



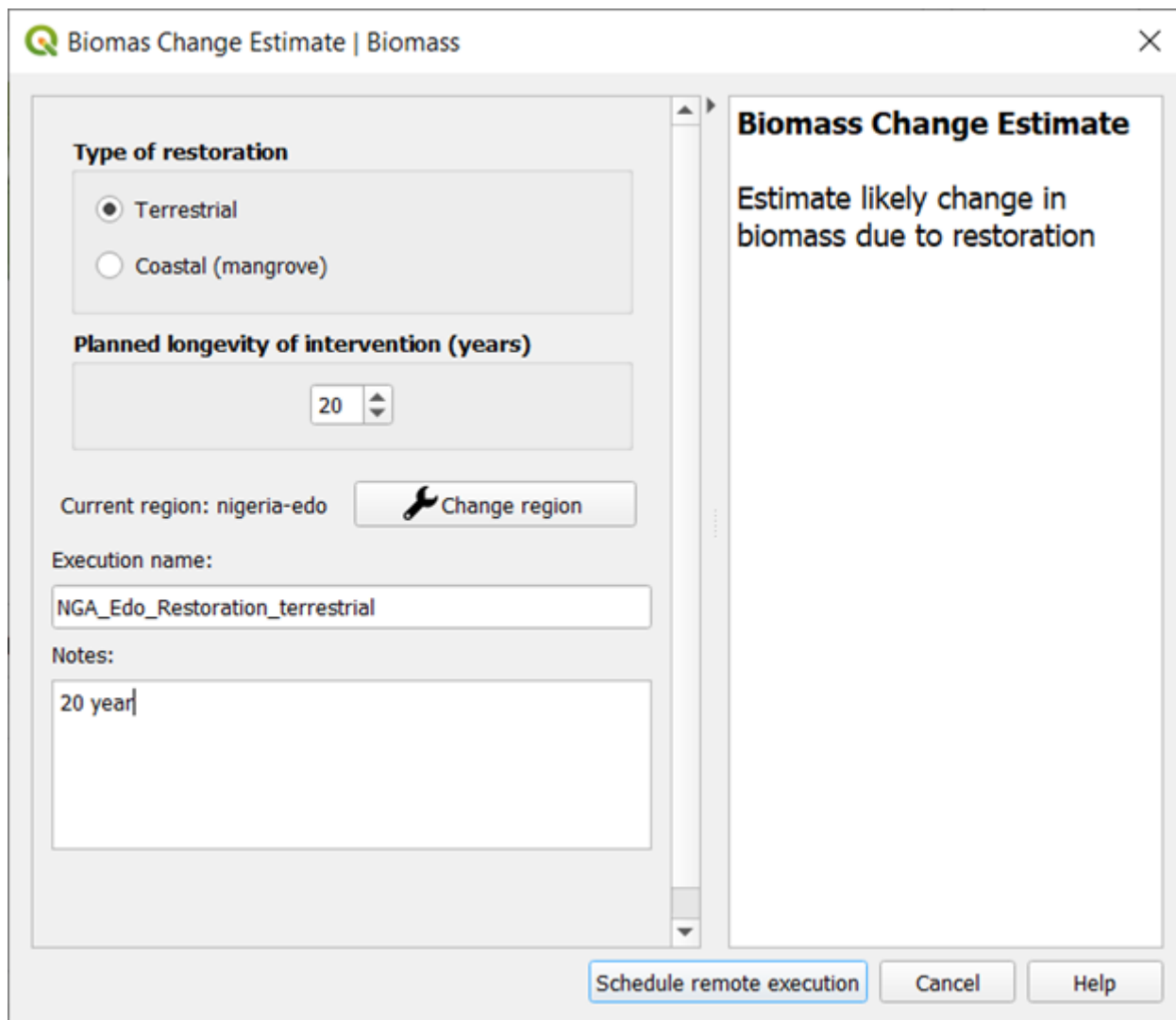
- 147





- 

- 150



 [Change region](#)

 geoBoundaries, Trends.Earth.
CC BY 4.0. Trends.Earth
 Trends.Earth, Trends.Earth, Trends.Earth, Trends.Earth,
 Trends.Earth, Trends.Earth, Trends.Earth, Trends.Earth,
 Trends.Earth, Trends.Earth, Trends.Earth, Trends.Earth,
 Trends.Earth.

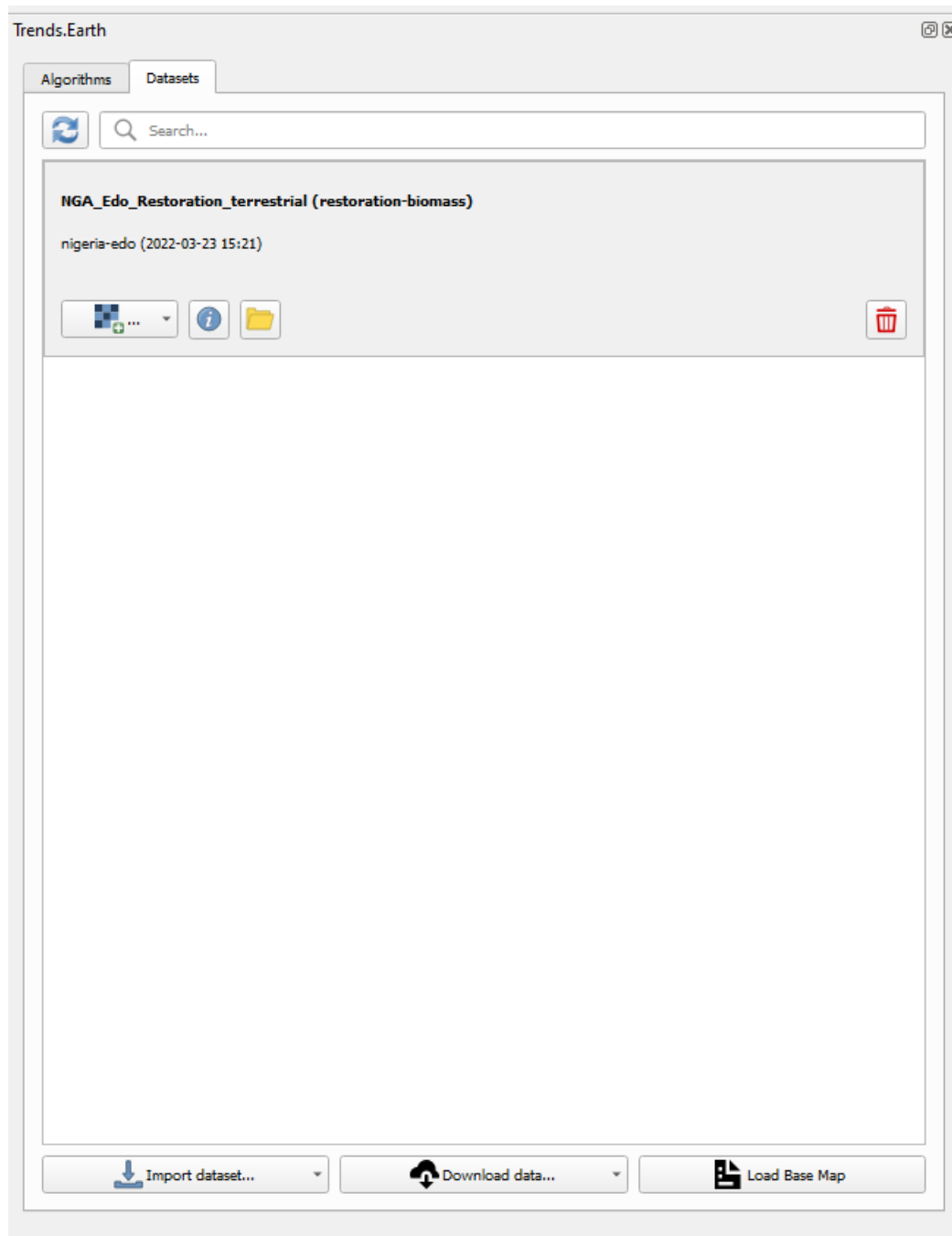
151

[illegible][illegible]

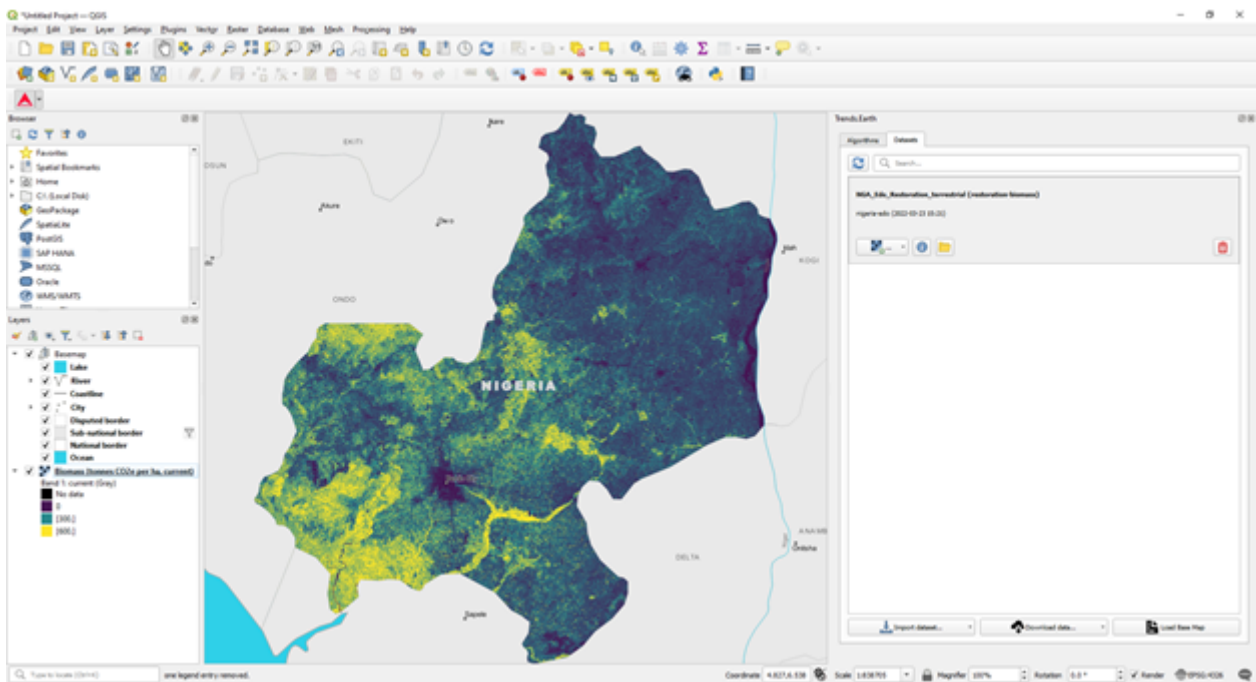
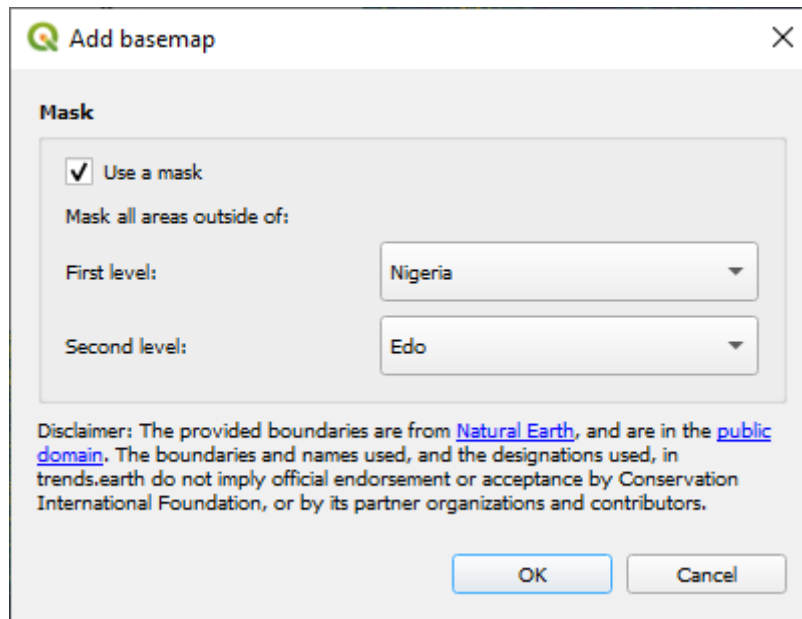
6. ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■, ■■■■■■■■■■, ■■■ ■■■■■■■■■■ ■■■■ ■■■■■■■■■■ ■■■■■■■■■■. ■■■■■■■■■■ ■■■■■ ■■■■■■■■■■ ■■ ■■■■■■■■■■ Google ■ ■■■■■ ■■■■■■■■ ■■ 5 ■■ 15 ■■■■■ ■ ■■■■■■■■■■ ■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ (■■■■■■■■■ ■■■■■■■■■■, ■■■■ ■■■■■■■■■■, ■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■).



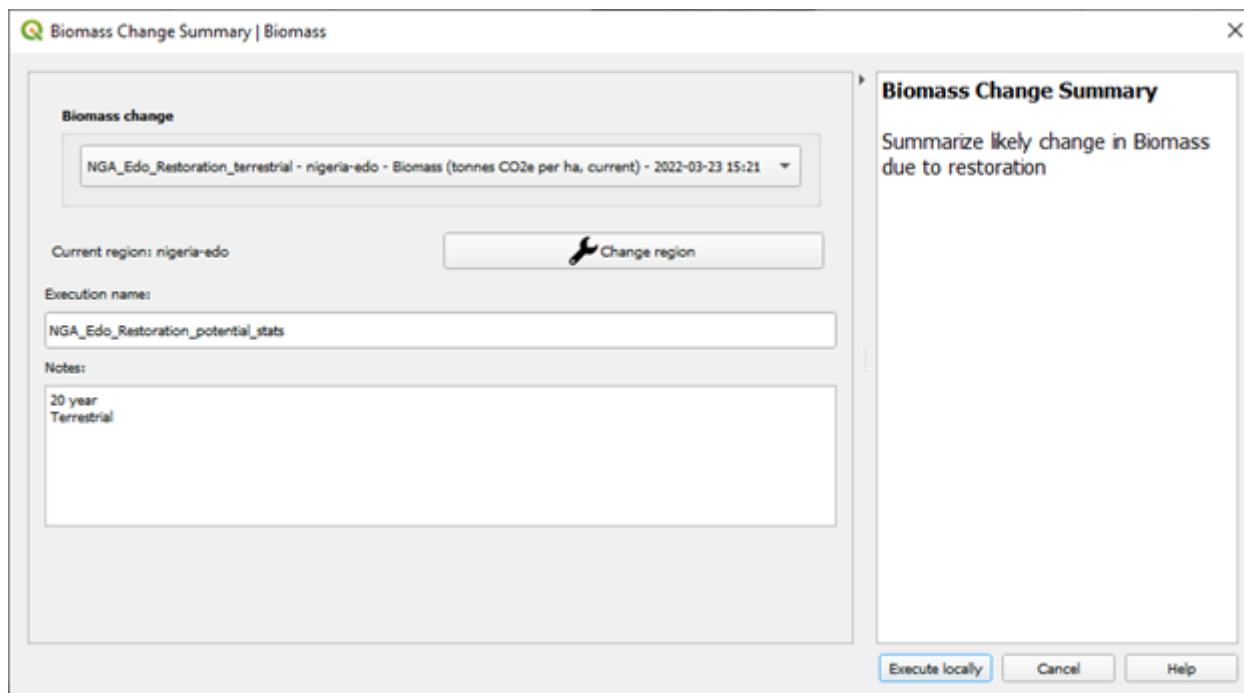
1. **Будет ли введена новая система оплаты труда в 2013 году?**
Будет введена новая система оплаты труда в 2013 году.



- 2.** [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED], [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED].



3. **Download the land cover data from Trends.Earth to QGIS, and use the 'Add basemap' dialog box to mask the land cover data to the study area (Edo State).**



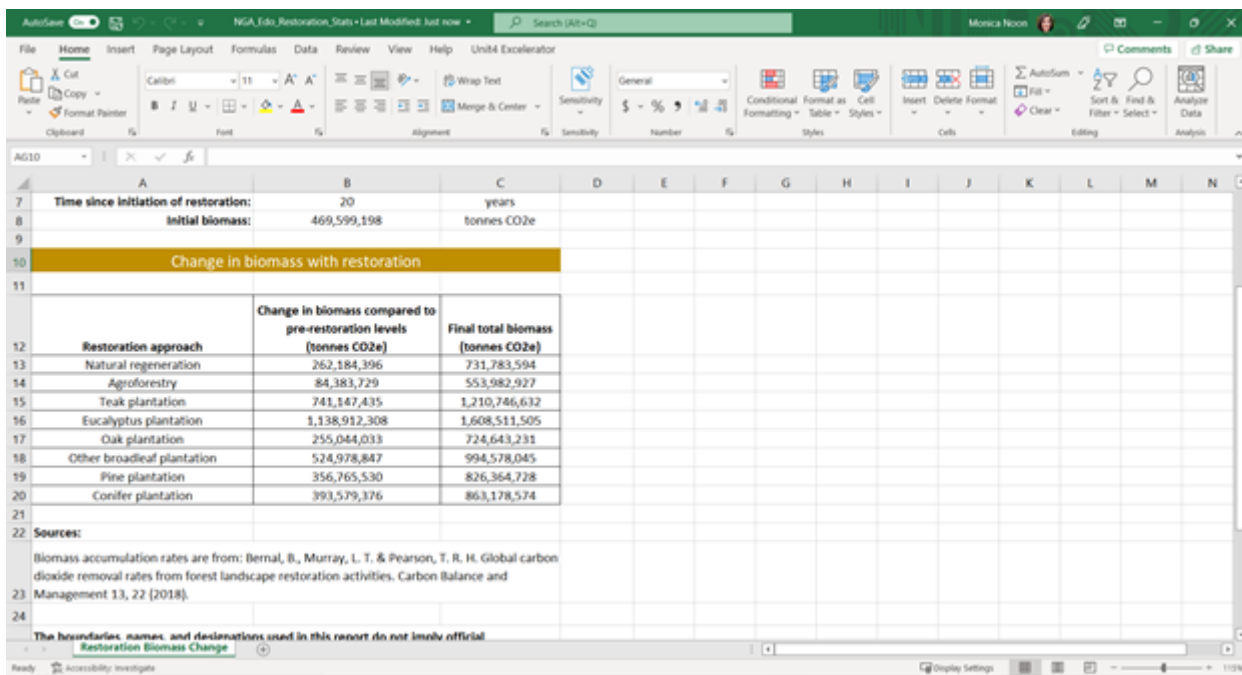
The screenshot shows a Microsoft Excel spreadsheet titled "TRENDS.EARTH tracking land change". The spreadsheet is divided into two main sections. The first section, titled "Summary of chosen area of interest", contains the following data:

| | Value | Units |
|---------------------------------------|-------------|--------------------------|
| Total area of polygon: | 1,976,949 | hectares |
| Time since initiation of restoration: | 20 | years |
| Initial biomass: | 469,599,198 | tonnes CO ₂ e |

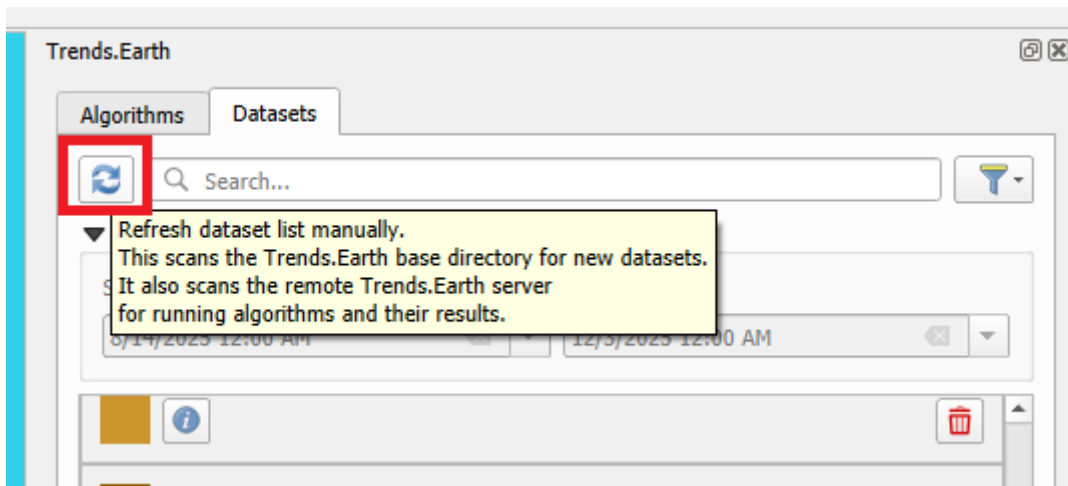
The second section, titled "Change in biomass with restoration", contains the following data:

| Restoration approach | Change in biomass compared to pre-restoration levels (tonnes CO ₂ e) | Final total biomass (tonnes CO ₂ e) |
|----------------------------|---|--|
| Natural regeneration | 262,184,396 | 731,783,594 |
| Agroforestry | 84,383,729 | 553,982,927 |
| Teak plantation | 741,147,435 | 1,210,746,632 |
| Eucalyptus plantation | 1,138,912,308 | 1,608,511,505 |
| Oak plantation | 255,044,033 | 724,643,231 |
| Other broadleaf plantation | 524,978,847 | 994,578,045 |

The "Restoration Biomass Change" tab is selected at the bottom of the spreadsheet.

[illegible]

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-
- Trends.Earth
- Algorithms Datasets
- Search...
- Filter by date
- Start End
- 8/14/2025 12:00 AM 12/3/2025 12:00 AM
- LOCAL
- Bahamas_LC_change_2000-2023 (local-land-cover)**
- bahamas-all-regions-buffer-10.000 (2025-11-18 18:11)
- LOCAL
- Land cover (2023, imported) (local-land-cover)**
- bahamas-all-regions-buffer-10.000 (2025-11-18 18:10)
- Dataset metadata
- land-cover-2023-imported_local-land-cover_bahamas-all-regions-buffer-10.000.tif metadata
- LOCAL
- bahamas-all-regions-buffer-10.000 (2025-11-18 17:43)

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XXXXXXXXXX XXXX XXXXXXXXXXXXXXX. XXXXXX XXXXXXXX XXXXXXXX XXXXXXXXXXXXXXX
XXXXXXXXXXXX XXXXX XXXXXXXXXXXXXXX XXXXXXXXXXXXXXX.

 Dataset Metadata

▼ General

Title

Land Cover

Author or Publisher

John Doe

Source Link or Identifier

www.customlandcoverexample.org

Bibliographical Citation

Doe, J., et al. 2025. Custom land cover example for Trends.Earth

▼ Topics

Climatology Meteorology Atmosphere
Economy
Elevation
Farming
Geoscientific Information
Health

▶

+

−

Conservation
Environment
Land degradation neutrality

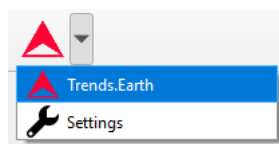
OK

Cancel

5. ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■
■■■■■■■■■■ ■■■■■■ ■ ■■■■■ ■■■■■■■■ ■ ■■■■■■■ ■■■■■■ OK, ■■■■■
■■■■■■■■■ ■■■■■■■■■■. ■■■■■■■■■■ ■■■■■ ■■■■■■■■■■ ■ ■■■■■■■ QGIS
QMD, ■ ■■■■■■■■■ ■■■■■ ■■■■ ■■■■■■■ ■■■■■■■ ■ ■■■■■ ■■■■■■ ■■■■■■.

[illegible]

- **Figure 1:** Map of the study area showing the location of the study area in the world map. The map shows the location of the study area in the world map. The map shows the location of the study area in the world map.
 - ****** **Figure 2:** Map of the study area showing the location of the study area in the world map. The map shows the location of the study area in the world map. The map shows the location of the study area in the world map.
 - **Figure 3:** Map of the study area showing the location of the study area in the world map. The map shows the location of the study area in the world map. The map shows the location of the study area in the world map.
1. **Figure 4:** Map of the study area showing the location of the study area in the world map. The map shows the location of the study area in the world map. The map shows the location of the study area in the world map.

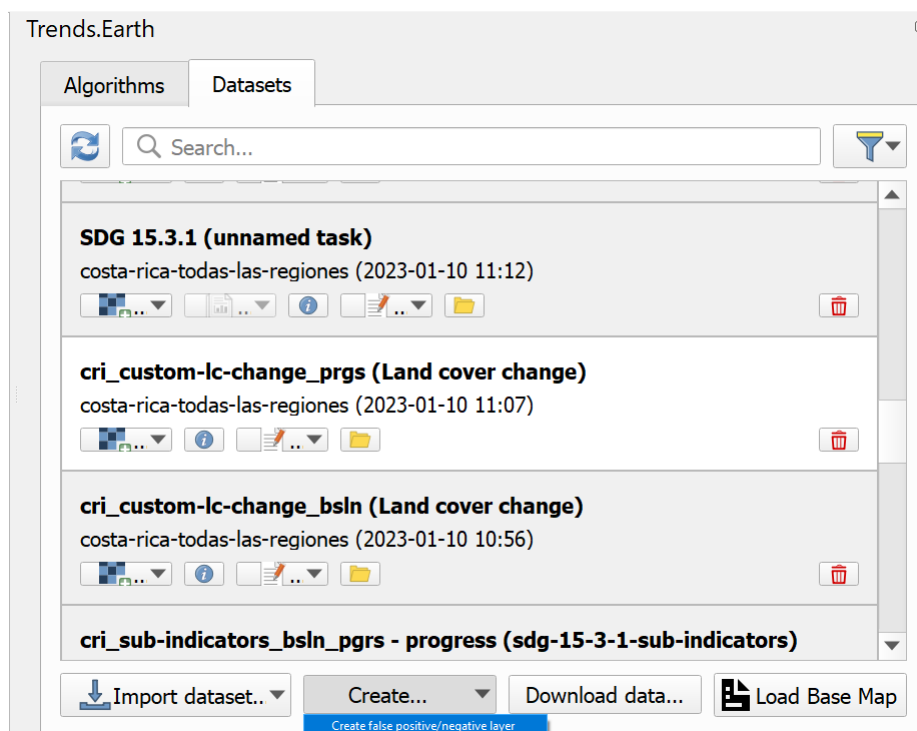


2. [REDACTED] Trends.Earth. [REDACTED] [REDACTED] [REDACTED], [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED].

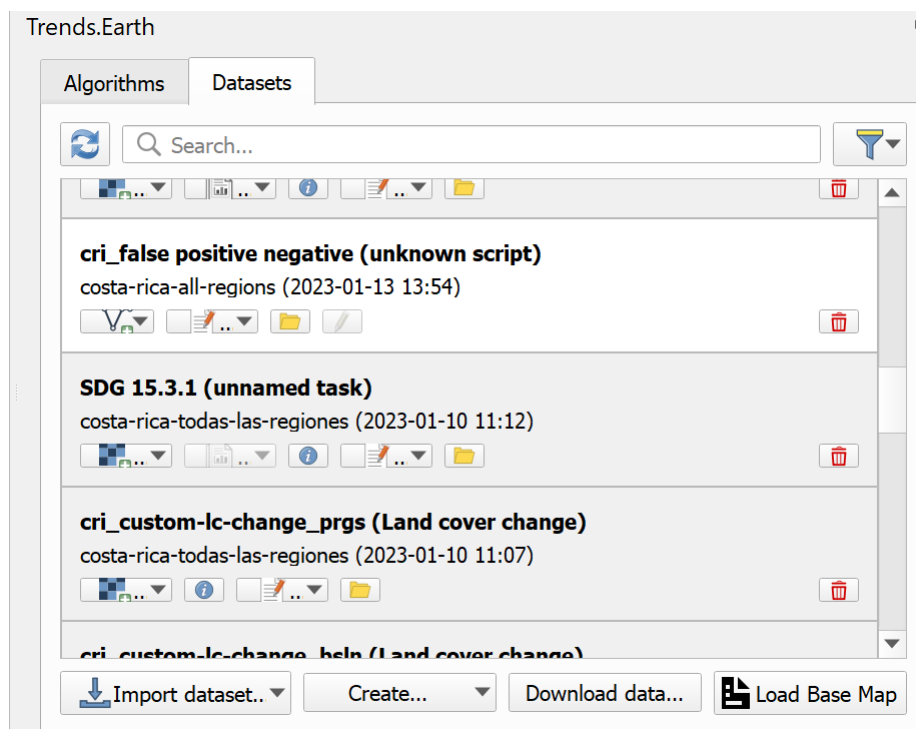
Note

XXXXXXXXXX **X XXXXXXXX XXXXXXXXXX XXXXXXXX XXXXXXXXXXXXXXX,** **XXXXXXXX XXXXXXXX**
XXXXXXXXXX **X XXXXXXXXXX XXXXXXXXXX**

- [REDACTED] [REDACTED], [REDACTED] [REDACTED] [REDACTED].
3. [REDACTED] [REDACTED] [REDACTED] [REDACTED] Trends.Earth, [REDACTED]
[REDACTED] [REDACTED]/[REDACTED]



- [illegible]



-

- Layers
- ☒ **False positive/negative**
- ☒ False negative
 - ☒  False positive
 - ☒  Undefined

-

-
- Dataset selection - False positive/negative
- Current region: costa-rica-all-regions  Change region
- Task name: cri_false positive negatives
- Dataset: costa-rica-todas-las-regiones - SDG 15.3.1 (unnamed task) - 2023-01-10 11:12
- SDG 15.3.1 indicator: costa-rica-todas-las-regiones - SDG 15.3.1 Indicator (2001-2015) - 2023-01-10 11:12
costa-rica-todas-las-regiones - SDG 15.3.1 Indicator (2005-2019) - 2023-01-10 11:12
- Productivity degradation: costa-rica-todas-las-regiones - SDG 15.3.1 Indicator (2001-2015 updated with 2005-2019) - 2023-01-10 11:12
- Land cover degradation: costa-rica-todas-las-regiones - Land cover degradation (2001 to 2015) - 2023-01-10 11:12
- Soil organic carbon degradation: costa-rica-todas-las-regiones - Soil organic carbon degradation (2001 to 2015) - 2023-01-10 11:12
- OK Cancel

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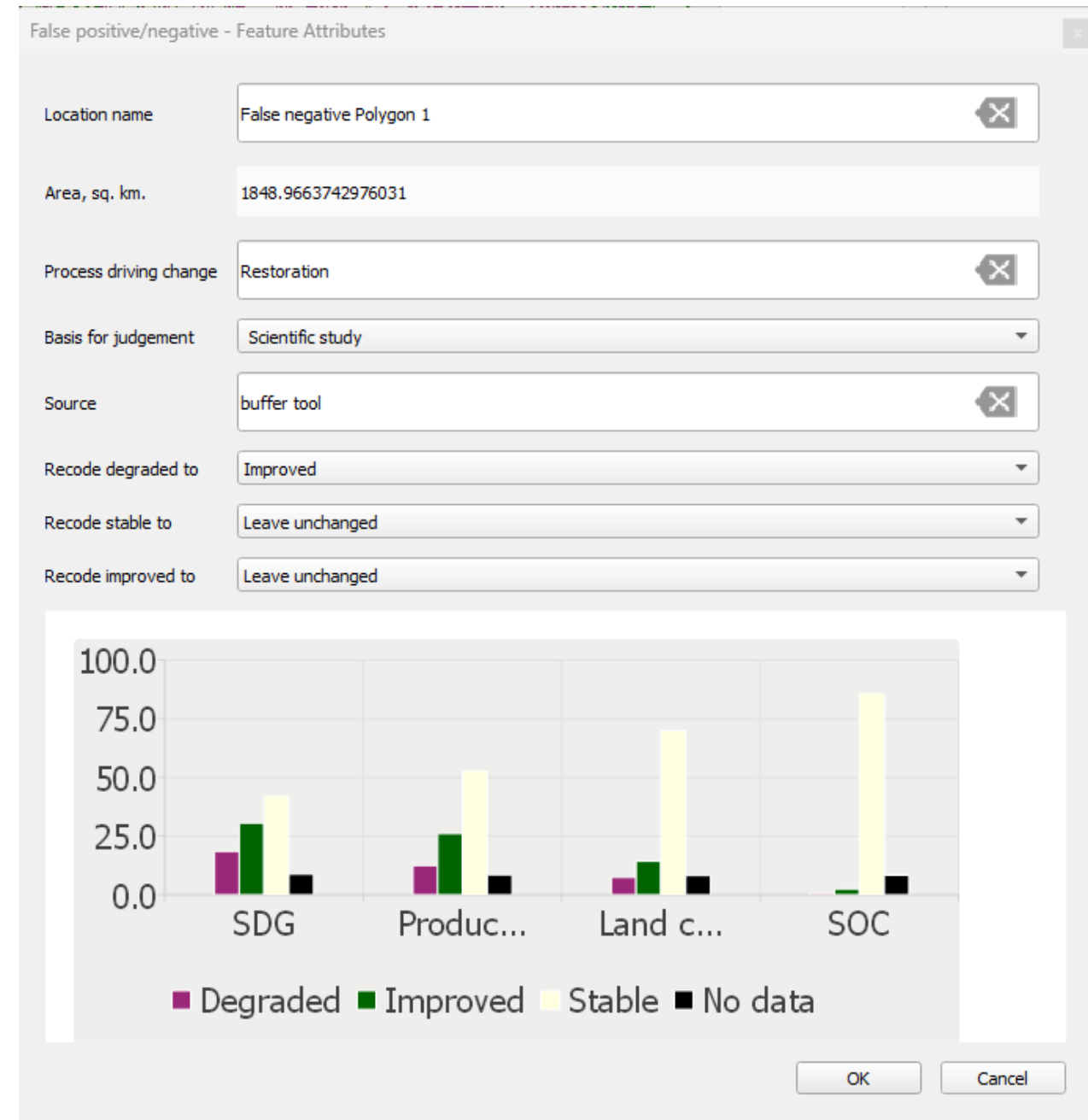
[illegible]

-

- Area 2305.65 km²

- 16.37 ki Radius

- 161

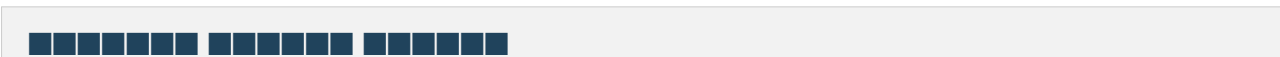
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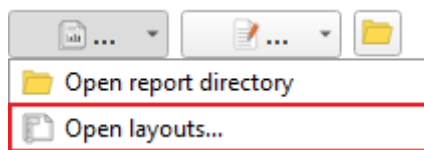


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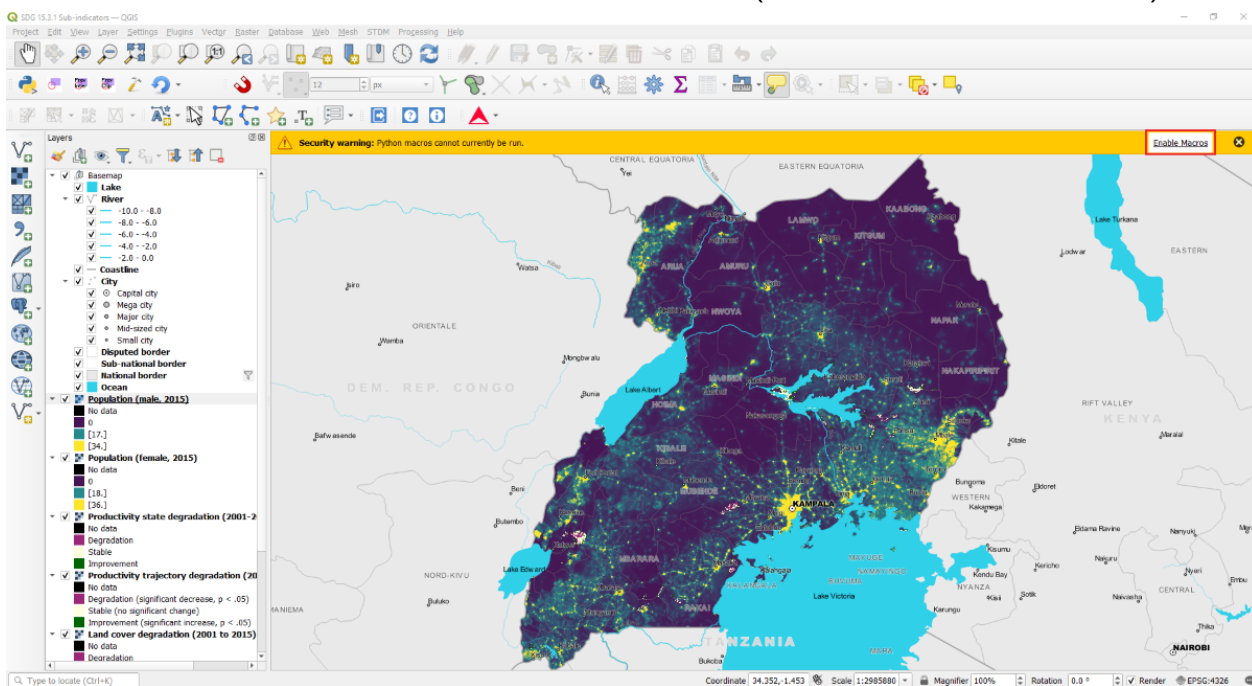
- 15.3.1 ■ 非線形最適化問題の解法**



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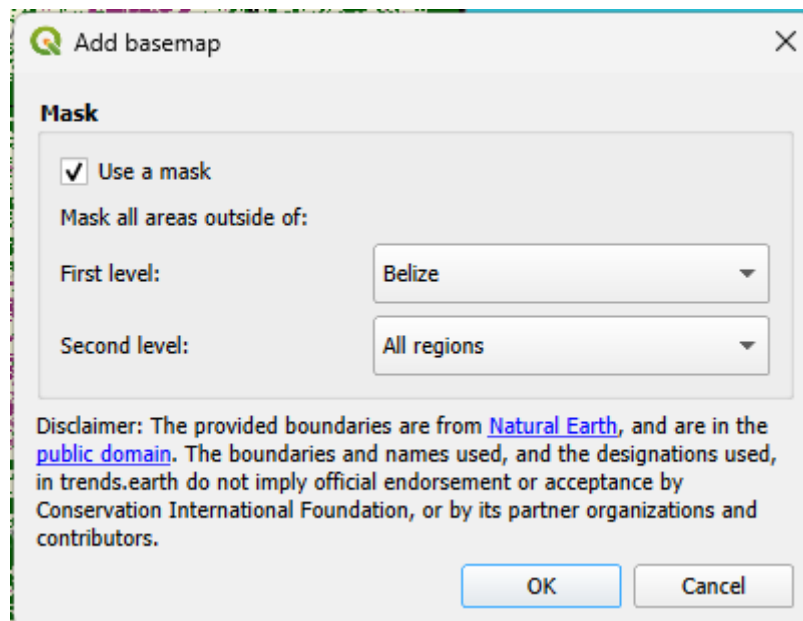
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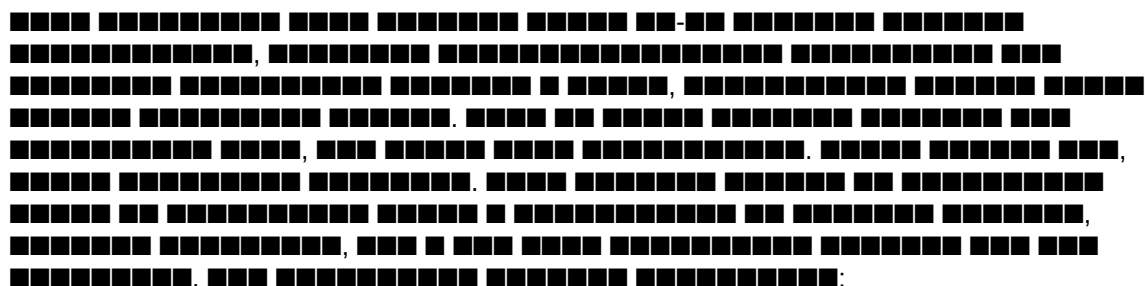
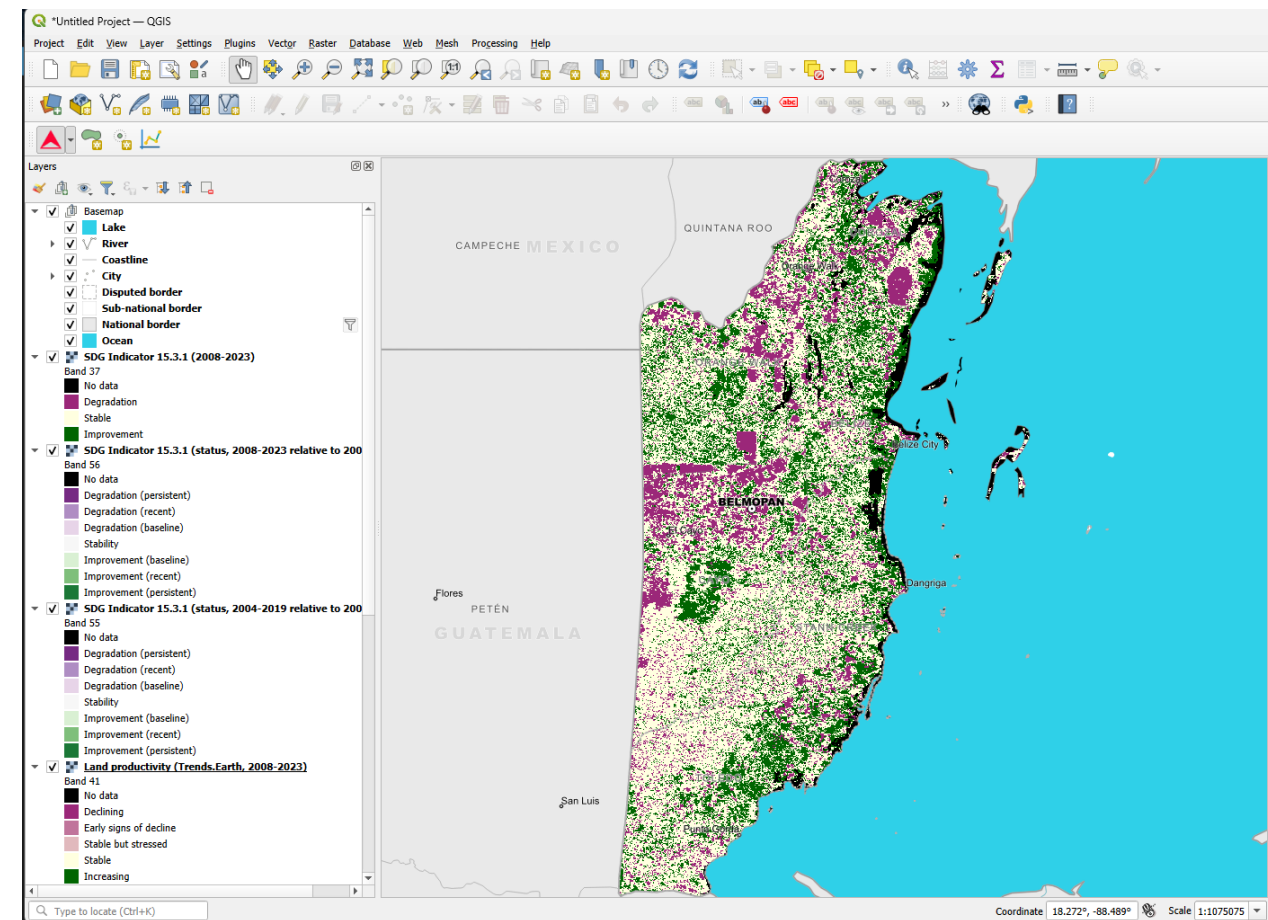
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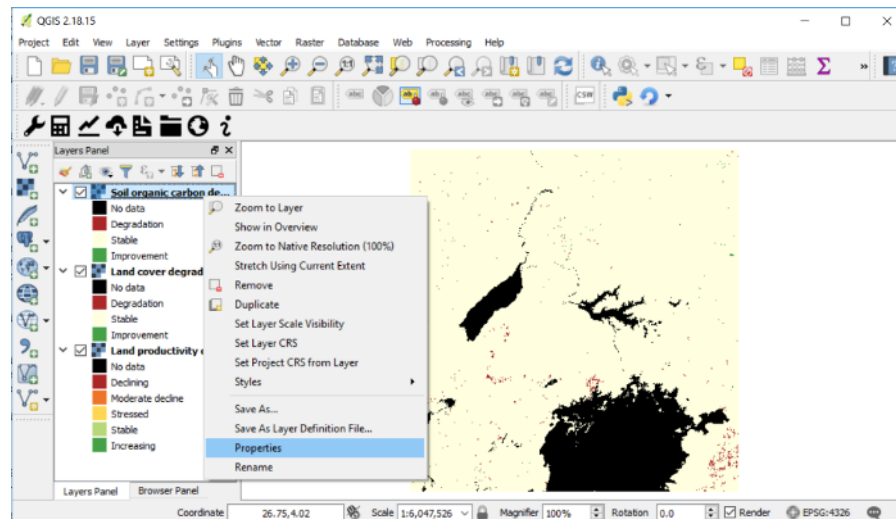


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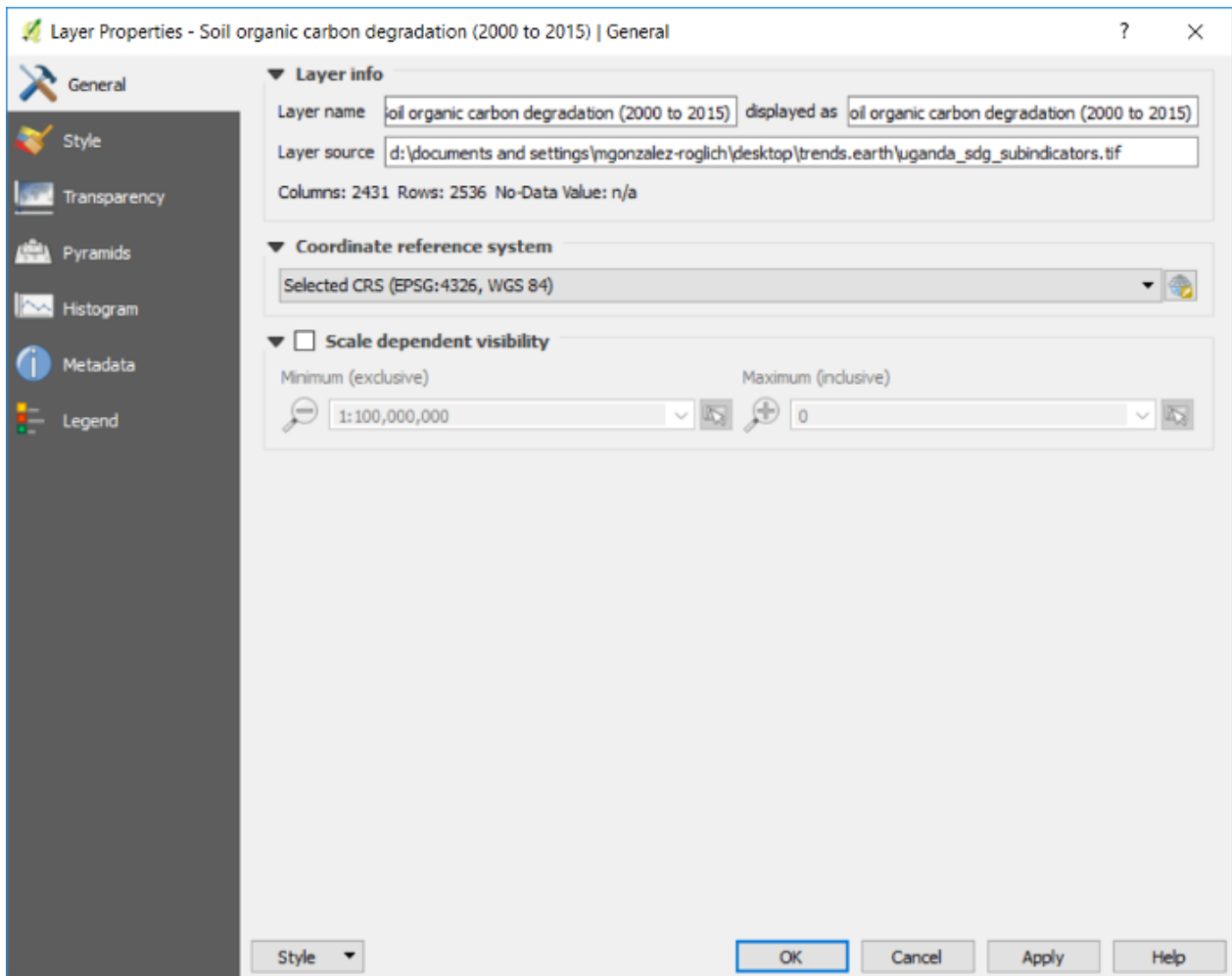
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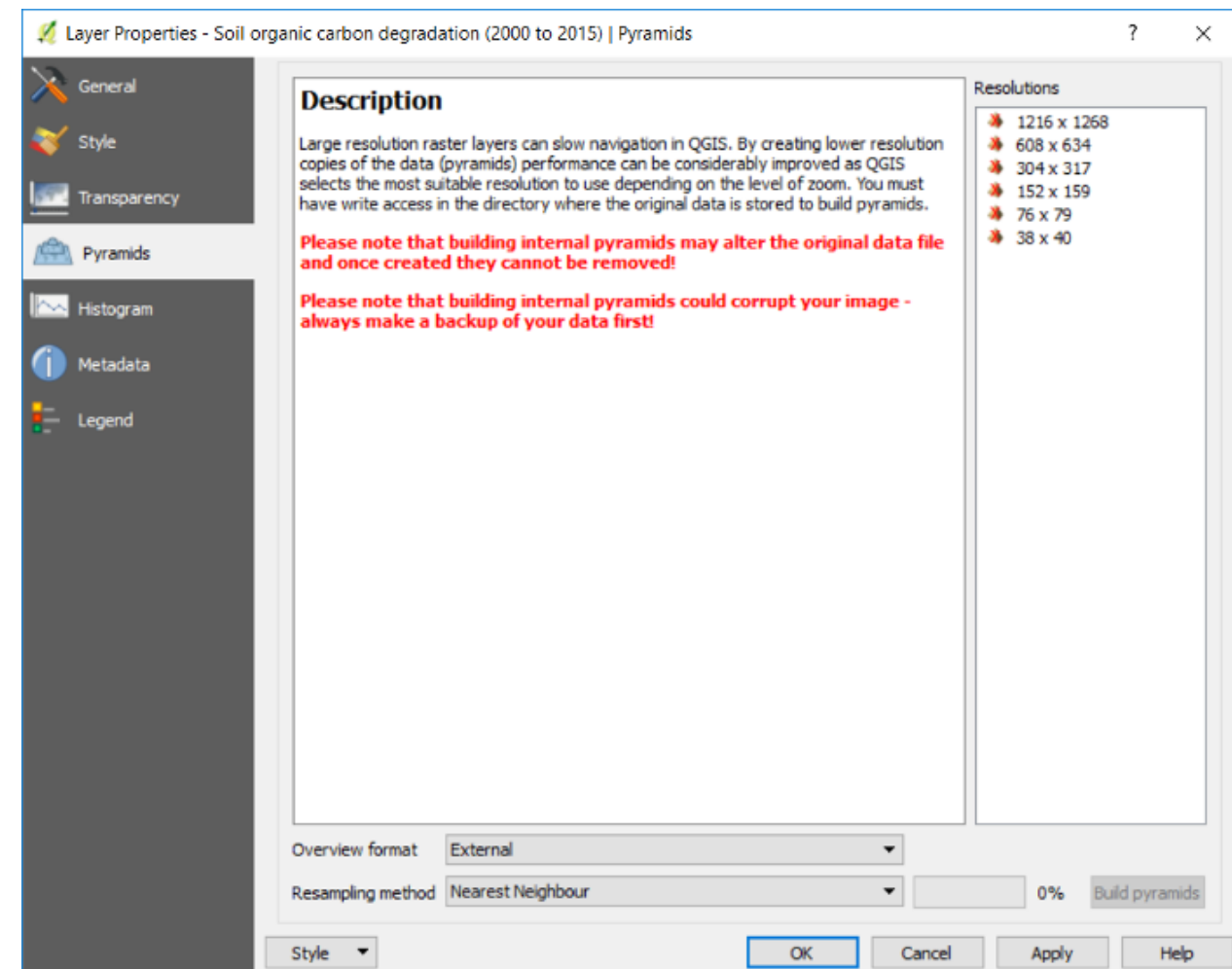
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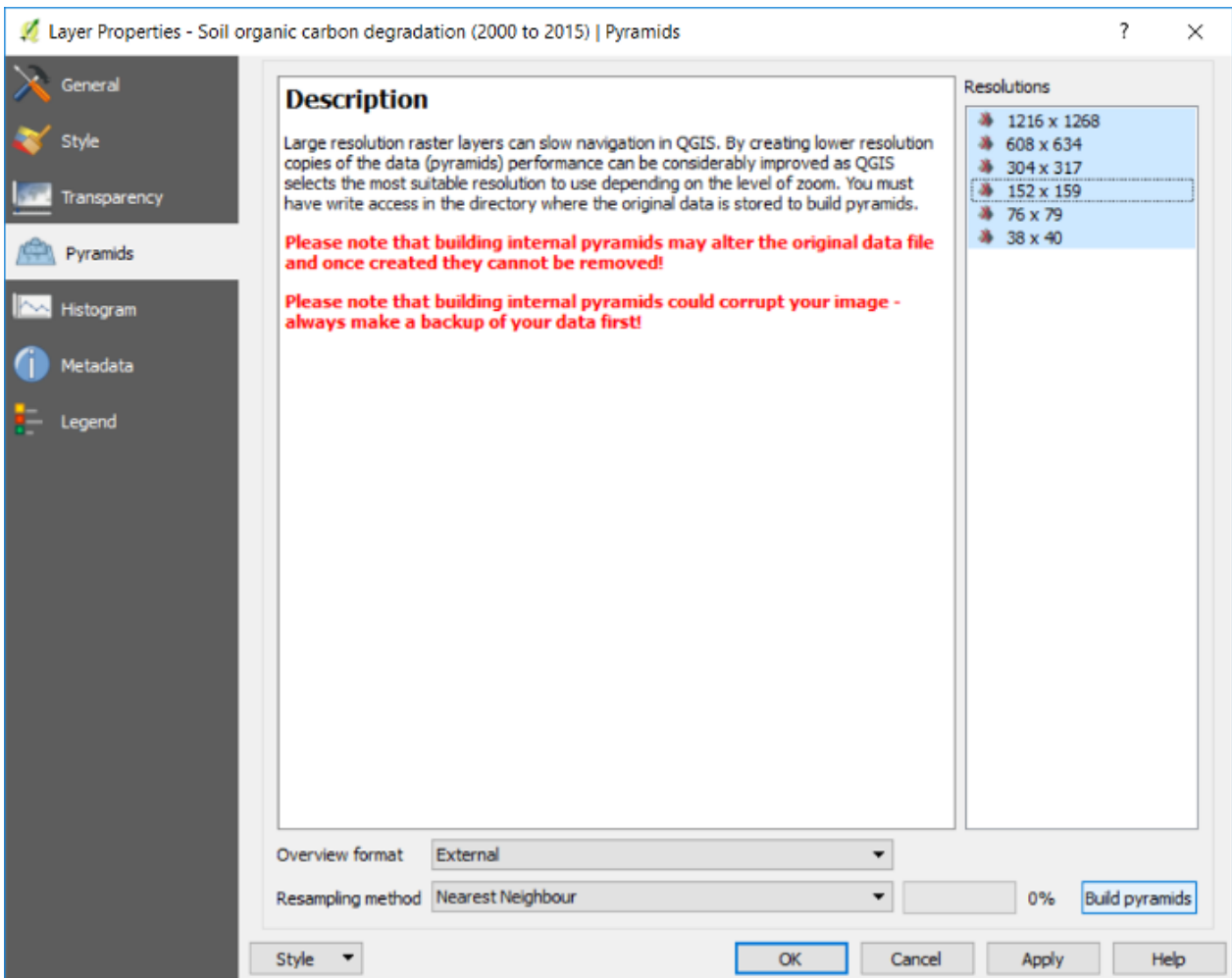
2. **Сформулируйте и обоснуйте свой ответ. Не забывайте указывать, какие именно факты вы используете для обоснования своего ответа.**



- 170



- 171



- | Resolutions | Resolutions |
|---|---|
|  1216 x 1268 |  1216 x 1268 |
|  608 x 634 |  608 x 634 |
|  304 x 317 |  304 x 317 |
|  152 x 159 |  152 x 159 |
|  76 x 79 |  76 x 80 |
|  38 x 40 |  38 x 40 |

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QUESTION

Trends.Earth<https://groups.google.com/forum/#!forum/trends_earth_users>`_,
<https://groups.google.com/forum/#!forum/trends_earth_users/join>`_! !
▲TRENDS.EARTH

[illegible][illegible]

Why is my job stuck in «Pending» status?

When you submit an analysis job, Trends.Earth places it in a queue that processes requests in the order they were received. To ensure fair access to computing resources for all users, each account is limited to running a small number of jobs at the same time (typically three). If you already have several jobs running, any new jobs you submit will remain in «Pending» status until one of your active jobs finishes. Once a slot becomes available, your oldest pending job will automatically start processing. You don't need to take any action - once your earlier jobs complete, your queued jobs will begin shortly afterward.

 Trends.Earth

Quantum GIS (QGIS) ?

QGIS, 2025 Trends.Earth

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[illegible]

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Python. **What is the difference between a list and a tuple?**

[illegible]

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[illegible]

THESE DOCUMENTS SONT DESTINES A L'INFORMATION SEULEMENT. ILS NE DOIVENT PAS ETRE UTILISES POUR PRENDRE DES DECISIONS D'ORDRE MEDICAL.

- [illegible]

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C:\Documents\user\AppData\Roaming\QGIS\QGIS3\profiles\default\pythonplugins
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[illegible]

Trends Earth

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AVHRR (8 ■■■) ■ MODIS (250 ■) ■■■
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 ■■■■■■, ■■■■■■■■ ■■■■■■■■.

QUESTION

175

1. **Установите соответствие между названием страны и ее столицей.**

2. **Укажите название страны, в которой находится столица России.**

Note

1. **Установите соответствие между названием страны и ее столицей.** 15.3.1 **Укажите название страны, в которой находится столица России.** **Trends.Earth.**

3. **Укажите название страны, в которой находится столица России.**

4. **Укажите название страны, в которой находится столица России.**

5. **Укажите название страны, в которой находится столица России.**

6. **Укажите название страны, в которой находится столица России.**

7. **Укажите название страны, в которой находится столица России.**

8. **Укажите название страны, в которой находится столица России.**

9. **Укажите название страны, в которой находится столица России.**

10. **Укажите название страны, в которой находится столица России.**

Какие из следующих данных являются пространственными? Выберите все верные варианты.

1. Координаты точек на карте. 2. Высота точек над уровнем моря. 3. Температура воздуха в конкретном месте. 4. Плотность населения в конкретной области. 5. Цвет неба. 6. Дата рождения человека. 7. Площадь поверхности Земли. 8. Расстояние между двумя городами. 9. Форма рельефа местности. 10. Скорость ветра в конкретном месте.

Trends.Earth – это платформа для анализа данных о климате и окружающей среде. Какие из следующих данных можно получить на этой платформе? Выберите все верные варианты.

Какие из следующих данных являются пространственными? Выберите все верные варианты.

1. Координаты точек на карте. 2. Высота точек над уровнем моря. 3. Температура воздуха в конкретном месте. 4. Плотность населения в конкретной области. 5. Цвет неба. 6. Дата рождения человека. 7. Площадь поверхности Земли. 8. Расстояние между двумя городами. 9. Форма рельефа местности. 10. Скорость ветра в конкретном месте.

2017 年 12 月 1 日，Google 宣布，Google Earth Engine 平台已正式支持 Landsat 8 数据。
 该平台是一个基于云计算的地理空间分析平台，允许用户通过简单的 API 调用，
 对全球范围内的卫星数据进行大规模处理和分析。

QGIS, un logiciel libre de cartographie et d'analyse spatiale, est une solution open source pour la gestion des données géographiques. Il permet de visualiser, éditer et analyser des données vectorielles et raster. QGIS est compatible avec de nombreux formats de données et peut être utilisé sur une large gamme de plateformes.

ArcGIS et ArcPro sont des logiciels propriétaires développés par Esri. Ils offrent des fonctionnalités avancées de cartographie et d'analyse spatiale, mais nécessitent l'achat d'une licence. Ces logiciels sont largement utilisés dans le secteur professionnel de la cartographie.

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| MERRA 2 | 1980–2019 | 0.5° x 0.625° | | |

ERA5-REanalysis (ERA5-REanalysis)

| Dataset / Variable | Period | Resolution | Units | Access |
|--------------------|-----------|---------------|-------|--------|
| ERA I | 1979-2016 | 0.75° x 0.75° | mm | Open |

ERA5-REanalysis (ERA5-REanalysis)

| Dataset / Variable | Period | Resolution | Units | Access |
|--------------------|-----------|-------------|---------|--------|
| GPCP v2.3 1 | 1979-2019 | 2.5° x 2.5° | mm | Open |
| GPCC V6 | 1891-2019 | 1° x 1° | mm | Open |
| CHIRPS | 1981–2024 | 5 | 50 - 50 | Open |
| PERSIANN-CDR | 1983–2024 | 25 | 60 - 60 | Open |

ERA5-REanalysis (ERA5-REanalysis)

| Dataset / Variable | Period | Resolution | Units | Access |
|--------------------|-----------|------------|-------|--------|
| MOD16A2GF | 2000–2024 | 500 | mm | Open |

ERA5-REanalysis (ERA5-REanalysis)

| Dataset / Variable | Period | Resolution | Units | Access |
|--------------------|-----------|------------|-------|-----------|
| ESA CCI Land Cover | 1992–2022 | 300 | mm | CC BY 4.0 |

ERA5-REanalysis (ERA5-REanalysis)

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| Soil Grids (ISRIC) |  | 250  |  | CC by-SA 4.0 |

| | 2000 | 2010 | 2020 | 2030 | 2040 |
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| FAO - IIASA Global Agroecological Zones (GAEZ) | 2000 | 8 | | | |

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geoBoundaries |  | 10/50  |  | CC BY 4.0 |

[geoBoundaries](#), Trends.Earth.
 CC BY 4.0. Trends.Earth
 is a project of the Trends.Earth
 organization, which is a 501(c)(3) non-profit organization. The organization's
 mission is to provide free, open access to the world's largest
 collection of geospatial data. The organization is committed to
 transparency, accountability, and the highest standards of data quality.
 For more information, please visit [www.trends.earth](#).

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WorldPop 100m (2000–2020)

| WorldPop 100m (2000–2020) | 2000–2020 | 100m | CC BY 4.0 |
|---------------------------|-----------|------|-----------|
| WorldPop 100m (2000–2020) | 2000–2020 | 100m | CC BY 4.0 |

Note

WorldPop 100m (2000–2020) is a global population dataset derived from satellite imagery and ground survey data. It is available in GeoTIFF format and can be accessed via S3 (trends.earth-shared, us-east-1). The dataset is organized by year and resolution (100m, 300m, 1200m). For more information, visit Trends.Earth.

WorldPop 100m (2000–2020) is a global population dataset derived from satellite imagery and ground survey data. It is available in GeoTIFF format and can be accessed via S3 (trends.earth-shared, us-east-1). The dataset is organized by year and resolution (100m, 300m, 1200m). For more information, visit Trends.Earth.

- s3://trends.earth-shared/worldpop/100m
- s3://trends.earth-shared/worldpop/300m
- shared

WorldPop 100m (2000–2020) Trends.Earth

WorldPop 100m (2000–2020) is a global population dataset derived from satellite imagery and ground survey data. It is available in GeoTIFF format and can be accessed via S3 (trends.earth-shared, us-east-1). The dataset is organized by year and resolution (100m, 300m, 1200m). For more information, visit Trends.Earth.

WorldPop 100m (2000–2020) is a global population dataset derived from satellite imagery and ground survey data. It is available in GeoTIFF format and can be accessed via S3 (trends.earth-shared, us-east-1). The dataset is organized by year and resolution (100m, 300m, 1200m). For more information, visit Trends.Earth.

WorldPop 100m (2000–2020) is a global population dataset derived from satellite imagery and ground survey data. It is available in GeoTIFF format and can be accessed via S3 (trends.earth-shared, us-east-1). The dataset is organized by year and resolution (100m, 300m, 1200m). For more information, visit Trends.Earth.

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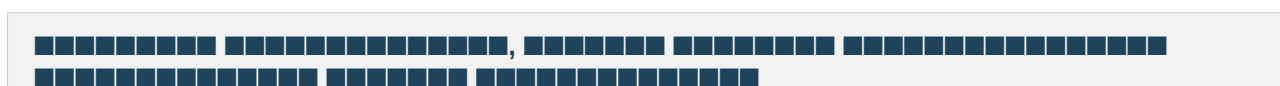
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| 5 | ■■■■■■■■■■■■■■■■■■ - ■■■■■■■■■■■■■■■■■ (■■■■ ■■■■■■■■■■) |
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| 13 | ■■■■ - ■■■■■■■■■■ ■■■■■■ |
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Page 10 of 10

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- ■■■■■■ ■■■■■■ JSON

Таблица 1. Структура таблицы jobs

Таблица 2. Структура таблицы current_layer

Таблица jobs содержит информацию о заданиях (jobs), которые выполняются на сервере. В таблице хранятся следующие данные: идентификатор задания (te_job_id), дата создания задания (te_job_creation_date), статус задания (te_job_status), имя задания (te_job_name), комментарии к заданию (te_job_comments), пути к файлам (te_job_paths), алгоритм задания (te_job_alg_name), параметры задания (te_job_input_params). Таблица current_layer содержит информацию о текущем слое (te_current_layer_name).

Таблица Trends.Earth содержит информацию о трендах. В таблице хранятся следующие данные: идентификатор тренда (te_trend_id), дата создания тренда (te_trend_creation_date), статус тренда (te_trend_status), имя тренда (te_trend_name), комментарии к тренду (te_trend_comments), пути к файлам (te_trend_paths), алгоритм тренда (te_trend_alg_name), параметры тренда (te_trend_input_params).

Таблица 3. Структура таблицы trends

Таблица trends содержит информацию о трендах (trends). В таблице хранятся следующие данные: идентификатор тренда (te_trend_id), дата создания тренда (te_trend_creation_date), статус тренда (te_trend_status), имя тренда (te_trend_name), комментарии к тренду (te_trend_comments), пути к файлам (te_trend_paths), алгоритм тренда (te_trend_alg_name), параметры тренда (te_trend_input_params).

| Имя поля | Тип данных | Описание |
|----------------------|------------|--|
| te_job_id | INTEGER | Идентификатор задания, уникальный идентификатор (UUID) |
| te_job_input_params | JSON | Параметры задания |
| te_job_paths | TEXT | Пути к файлам (-) задания |
| te_job_alg_name | TEXT | Алгоритм задания |
| te_job_creation_date | DATE | Дата создания задания (%Y-%m-%d %H:%M) |
| te_job_status | TEXT | Статус задания, возможные значения: 'pending', 'running', 'finished', 'failed', 'cancelled', 'paused', 'resumed', 'unknown'. |
| te_job_name | TEXT | Имя задания |
| te_job_comments | TEXT | Комментарии к заданию |

Таблица 4. Структура таблицы trends

Таблица trends содержит информацию о трендах (trends). В таблице хранятся следующие данные: идентификатор тренда (te_trend_id), дата создания тренда (te_trend_creation_date), статус тренда (te_trend_status), имя тренда (te_trend_name), комментарии к тренду (te_trend_comments), пути к файлам (te_trend_paths), алгоритм тренда (te_trend_alg_name), параметры тренда (te_trend_input_params).

| Имя поля | Тип данных | Описание |
|-----------------------|------------|-------------------|
| te_current_layer_name | TEXT | Имя текущего слоя |

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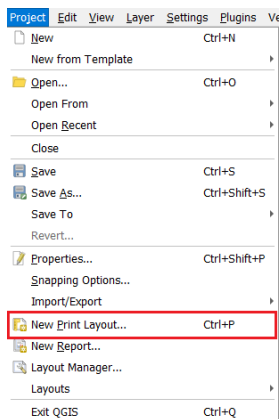
[illegible]

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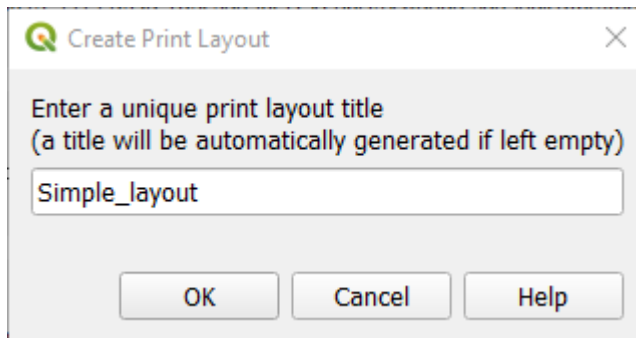
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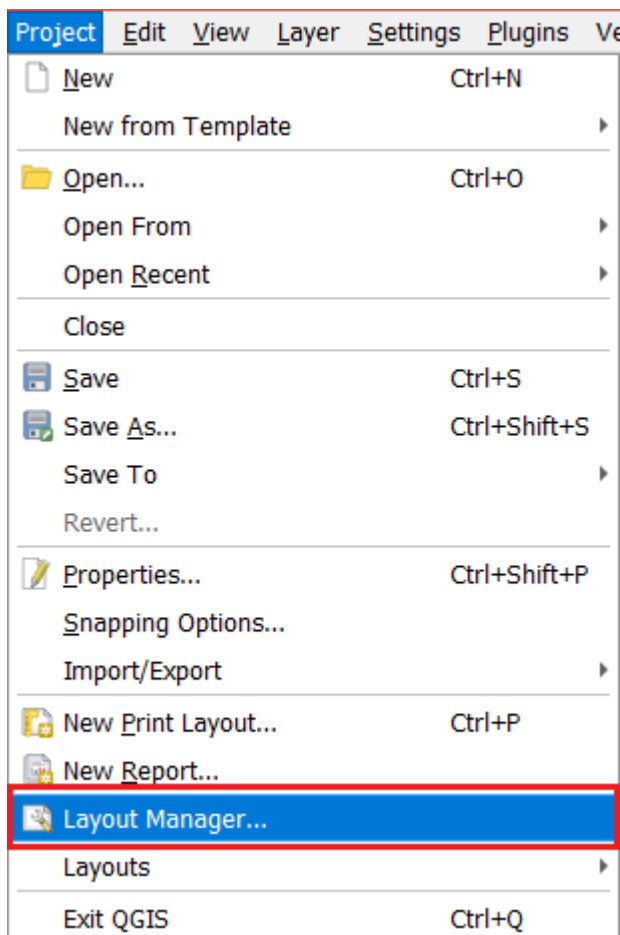
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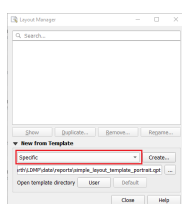
2. ■■■■■■■■ ■■■■■■■■ ■■■ ■■■ ■■■■■■■■.



1. **■■■■■■■■■■ ■■■■■■ > ■■■■■■■■■■ ■■■■■■■■■■....**



- 2.**

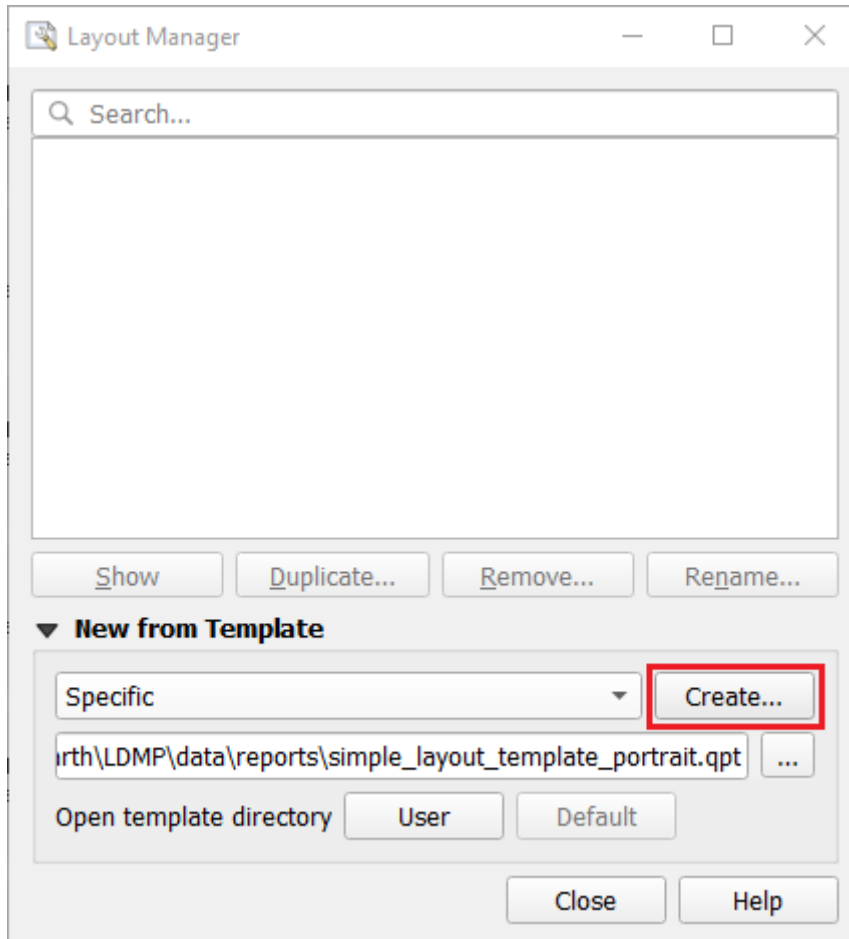


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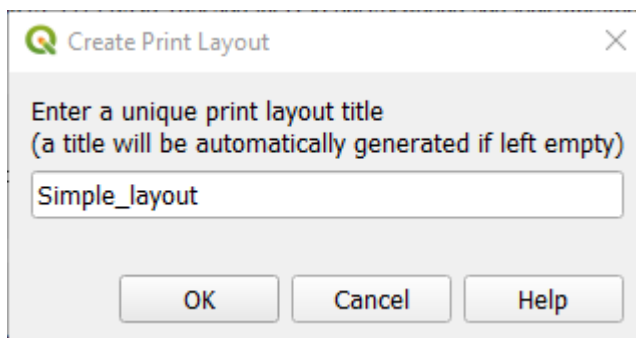
3. `REPORTS_DIRECTORY` (the directory), `REPORTS_TEMPLATE_PATH` (the path to the template file) and `REPORTS_FILENAME` (the filename). The default values are `qpt.`, `REPORTS_DIRECTORY` and `REPORTS_FILENAME`.
`[base_data_directory]/reports/templates`.`



4. ■■■■■■■■ ■■■■■■■■ ■■■■■■■■....



5. ■■■■■■■■ ■■■■■■■■ ■■■ ■■■ ■■■■■■■■.



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- [illegible]

- [illegible]

▼ **Item ID**

Id

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The `template` directory contains the `templates.json` file, which is used to generate the `reports/templates` directory. The `template` directory is located in the `reports/templates` directory.

templates.json — **Будет использоваться для хранения шаблонов, которые будут использоваться для генерации документов. Шаблон должен быть в формате JSON. Шаблон должен быть в формате JSON. Шаблон должен быть в формате JSON.**

- **template_info** — **QGIS**, **QGIS**.
- **output_options** — **QGIS**.

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```
{
  "template_info":{
    "id":"70ca4be7-839e-4248-be14-34ba8665ed98",
    "name":"Land Productivity",
    "description":"Overview of land productivity indicator.",
    "simple_portrait_path":"simple_layout_template_portrait.qpt",
    "simple_landscape_path":"simple_layout_template_landscape.qpt",
    "full_portrait_path":"full_layout_template_portrait.qpt",
    "full_landscape_path":"full_layout_template_landscape.qpt",
    "item_scopes":[
      {
        "name":"productivity",
        "type_id_mapping":{
          "map":["map.main"],
          "label":["label.layer_title"]
        }
      }
    ]
  },
  "output_options":{
```


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```

"template_type": "ALL",
"formats": [
  {
    "format_type": "PDF"
  },
  {
    "format_type": "IMAGE",
    "params": {
      "image_type": "png"
    }
  }
]
}
}

```

template_info

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Note

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output_options

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|--------------------|---|--|
| <i>format_type</i> | <p> 1. 如果格式为 PDF，则返回 PDF 格式。 2. 如果格式为 IMAGE，则返回 IMAGE 格式。 3. 如果格式为其他，则返回其他格式。 4. 如果格式为其他，则返回其他格式。 5. 如果格式为其他，则返回其他格式。 </p> | <div> <div></div> <div></div> </div> |
| <i>params</i> | <p> 1. 如果格式为 PDF，则返回 PDF 格式。 2. 如果格式为 IMAGE，则返回 IMAGE 格式。 3. 如果格式为其他，则返回其他格式。 4. 如果格式为其他，则返回其他格式。 5. 如果格式为其他，则返回其他格式。 6. 如果格式为其他，则返回其他格式。 7. 如果格式为其他，则返回其他格式。 8. 如果格式为其他，则返回其他格式。 9. 如果格式为其他，则返回其他格式。 10. 如果格式为其他，则返回其他格式。 </p> | <div> <div></div> <div></div> <div></div> </div> |

THE UNIVERSITY OF CHICAGO

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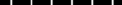
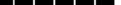
1. `QGIS, [base_data_directory]/reports/templates`.
2. `templates` `QGIS`.

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The [Trends.Earth](#) website, which is part of the [Google Earth](#) ecosystem, provides a platform for users to explore and analyze global trends and data. It offers a comprehensive overview of various environmental and social indicators, including climate change, land use, and population growth.

Zip-         Trends.Earth                        

15.3.1. **Verfahren zur Ermittlung der zu berücksichtigenden Kosten**
 Die Ermittlung der zu berücksichtigenden Kosten erfolgt auf Basis der Kosten der letzten drei Jahre vor dem Stichtag. Die Kosten der letzten drei Jahre vor dem Stichtag sind die Kosten, die in den Jahren 2019, 2020 und 2021 in der Bilanz der letzten drei Jahre vor dem Stichtag ausgewiesen sind. Die Kosten der letzten drei Jahre vor dem Stichtag sind die Kosten, die in den Jahren 2019, 2020 und 2021 in der Bilanz der letzten drei Jahre vor dem Stichtag ausgewiesen sind.

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15.3.1
(LPD),
LPD
(Trends.Earth (), FAO-WOCAT & JRC).

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| BEL | BEL (Trends.Earth LPD) | BEL (FAO-WOCAT LPD) | BEL (JRC LPD) |
| BEN | BEN (Trends.Earth LPD) | BEN (FAO-WOCAT LPD) | BEN (JRC LPD) |
| BES | BES (Trends.Earth LPD) | BES (FAO-WOCAT LPD) | BES (JRC LPD) |
| BFA | BFA (Trends.Earth LPD) | BFA (FAO-WOCAT LPD) | BFA (JRC LPD) |
| BGD | BGD (Trends.Earth LPD) | BGD (FAO-WOCAT LPD) | BGD (JRC LPD) |
| BGR | BGR (Trends.Earth LPD) | BGR (FAO-WOCAT LPD) | BGR (JRC LPD) |
| BHR | BHR (Trends.Earth LPD) | BHR (FAO-WOCAT LPD) | BHR (JRC LPD) |
| BHS | BHS (Trends.Earth LPD) | BHS (FAO-WOCAT LPD) | BHS (JRC LPD) |
| BIH | BIH (Trends.Earth LPD) | BIH (FAO-WOCAT LPD) | BIH (JRC LPD) |
| BLM | BLM (Trends.Earth LPD) | BLM (FAO-WOCAT LPD) | BLM (JRC LPD) |
| BLR | BLR (Trends.Earth LPD) | BLR (FAO-WOCAT LPD) | BLR (JRC LPD) |
| BLZ | BLZ (Trends.Earth LPD) | BLZ (FAO-WOCAT LPD) | BLZ (JRC LPD) |
| BMU | BMU (Trends.Earth LPD) | BMU (FAO-WOCAT LPD) | BMU (JRC LPD) |
| BOL | BOL (Trends.Earth LPD) | BOL (FAO-WOCAT LPD) | BOL (JRC LPD) |
| BRA | BRA (Trends.Earth LPD) | BRA (FAO-WOCAT LPD) | BRA (JRC LPD) |
| BRB | BRB (Trends.Earth LPD) | BRB (FAO-WOCAT LPD) | BRB (JRC LPD) |
| BRN | BRN (Trends.Earth LPD) | BRN (FAO-WOCAT LPD) | BRN (JRC LPD) |
| BTN | BTN (Trends.Earth LPD) | BTN (FAO-WOCAT LPD) | BTN (JRC LPD) |
| BWA | BWA (Trends.Earth LPD) | BWA (FAO-WOCAT LPD) | BWA (JRC LPD) |



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■■■■■ LPD
FAO-WOCAT | ■■■ 15.3.1 ■■
■■■■■ JRC LPD |
|-------|--|---|--------------------------------|
| CAF | CAF (Trends.Earth LPD) | CAF (FAO-WOCAT LPD) | CAF (JRC LPD) |
| CAN | CAN (Trends.Earth LPD) | CAN (FAO-WOCAT LPD) | CAN (JRC LPD) |
| CHE | CHE (Trends.Earth LPD) | CHE (FAO-WOCAT LPD) | CHE (JRC LPD) |
| CHL | CHL (Trends.Earth LPD) | CHL (FAO-WOCAT LPD) | CHL (JRC LPD) |
| CHN | CHN (Trends.Earth LPD) | CHN (FAO-WOCAT LPD) | CHN (JRC LPD) |
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| CMR | CMR (Trends.Earth LPD) | CMR (FAO-WOCAT LPD) | CMR (JRC LPD) |
| COD | COD (Trends.Earth LPD) | COD (FAO-WOCAT LPD) | COD (JRC LPD) |
| COG | COG (Trends.Earth LPD) | COG (FAO-WOCAT LPD) | COG (JRC LPD) |
| COK | COK (Trends.Earth LPD) | COK (FAO-WOCAT LPD) | COK (JRC LPD) |
| COL | COL (Trends.Earth LPD) | COL (FAO-WOCAT LPD) | COL (JRC LPD) |
| COM | COM (Trends.Earth LPD) | COM (FAO-WOCAT LPD) | COM (JRC LPD) |
| CPV | CPV (Trends.Earth LPD) | CPV (FAO-WOCAT LPD) | CPV (JRC LPD) |
| CRI | CRI (Trends.Earth LPD) | CRI (FAO-WOCAT LPD) | CRI (JRC LPD) |
| CUB | CUB (Trends.Earth LPD) | CUB (FAO-WOCAT LPD) | CUB (JRC LPD) |
| CUW | CUW (Trends.Earth LPD) | CUW (FAO-WOCAT LPD) | CUW (JRC LPD) |
| CYM | CYM (Trends.Earth LPD) | CYM (FAO-WOCAT LPD) | CYM (JRC LPD) |
| CYP | CYP (Trends.Earth LPD) | CYP (FAO-WOCAT LPD) | CYP (JRC LPD) |
| CZE | CZE (Trends.Earth LPD) | CZE (FAO-WOCAT LPD) | CZE (JRC LPD) |
| DEU | DEU (Trends.Earth LPD) | DEU (FAO-WOCAT LPD) | DEU (JRC LPD) |







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FAO-WOCAT</div> | <div> <div>15.3.1</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div>JRC LPD</div> |
|--|--|---|---|
| IMN | IMN (Trends.Earth LPD) | IMN (FAO-WOCAT LPD) | IMN (JRC LPD) |
| IND | IND (Trends.Earth LPD) | IND (FAO-WOCAT LPD) | IND (JRC LPD) |
| IRL | IRL (Trends.Earth LPD) | IRL (FAO-WOCAT LPD) | IRL (JRC LPD) |
| IRN | IRN (Trends.Earth LPD) | IRN (FAO-WOCAT LPD) | IRN (JRC LPD) |
| IRQ | IRQ (Trends.Earth LPD) | IRQ (FAO-WOCAT LPD) | IRQ (JRC LPD) |
| ISL | ISL (Trends.Earth LPD) | ISL (FAO-WOCAT LPD) | ISL (JRC LPD) |
| ISR | ISR (Trends.Earth LPD) | ISR (FAO-WOCAT LPD) | ISR (JRC LPD) |
| ITA | ITA (Trends.Earth LPD) | ITA (FAO-WOCAT LPD) | ITA (JRC LPD) |
| JAM | JAM (Trends.Earth LPD) | JAM (FAO-WOCAT LPD) | JAM (JRC LPD) |
| JOR | JOR (Trends.Earth LPD) | JOR (FAO-WOCAT LPD) | JOR (JRC LPD) |
| JPN | JPN (Trends.Earth LPD) | JPN (FAO-WOCAT LPD) | JPN (JRC LPD) |
| KAZ | KAZ (Trends.Earth LPD) | KAZ (FAO-WOCAT LPD) | KAZ (JRC LPD) |
| KEN | KEN (Trends.Earth LPD) | KEN (FAO-WOCAT LPD) | KEN (JRC LPD) |
| KGZ | KGZ (Trends.Earth LPD) | KGZ (FAO-WOCAT LPD) | KGZ (JRC LPD) |
| KHM | KHM (Trends.Earth LPD) | KHM (FAO-WOCAT LPD) | KHM (JRC LPD) |
| KIR | KIR (Trends.Earth LPD) | KIR (FAO-WOCAT LPD) | KIR (JRC LPD) |
| KNA | KNA (Trends.Earth LPD) | KNA (FAO-WOCAT LPD) | KNA (JRC LPD) |
| KOR | KOR (Trends.Earth LPD) | KOR (FAO-WOCAT LPD) | KOR (JRC LPD) |
| KWT | KWT (Trends.Earth LPD) | KWT (FAO-WOCAT LPD) | KWT (JRC LPD) |
| LAO | LAO (Trends.Earth LPD) | LAO (FAO-WOCAT LPD) | LAO (JRC LPD) |



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■■■■■
Trends.Earth LPD | ■■■ 15.3.1 ■■
■■■■■ LPD
FAO-WOCAT | ■■■ 15.3.1 ■■
■■■■■ JRC LPD |
|-------|--|---|--------------------------------|
| LBN | LBN (Trends.Earth LPD) | LBN (FAO-WOCAT LPD) | LBN (JRC LPD) |
| LBR | LBR (Trends.Earth LPD) | LBR (FAO-WOCAT LPD) | LBR (JRC LPD) |
| LBY | LBY (Trends.Earth LPD) | LBY (FAO-WOCAT LPD) | LBY (JRC LPD) |
| LCA | LCA (Trends.Earth LPD) | LCA (FAO-WOCAT LPD) | LCA (JRC LPD) |
| LIE | LIE (Trends.Earth LPD) | LIE (FAO-WOCAT LPD) | LIE (JRC LPD) |
| LKA | LKA (Trends.Earth LPD) | LKA (FAO-WOCAT LPD) | LKA (JRC LPD) |
| LSO | LSO (Trends.Earth LPD) | LSO (FAO-WOCAT LPD) | LSO (JRC LPD) |
| LTU | LTU (Trends.Earth LPD) | LTU (FAO-WOCAT LPD) | LTU (JRC LPD) |
| LUX | LUX (Trends.Earth LPD) | LUX (FAO-WOCAT LPD) | LUX (JRC LPD) |
| LVA | LVA (Trends.Earth LPD) | LVA (FAO-WOCAT LPD) | LVA (JRC LPD) |
| MAR | MAR (Trends.Earth LPD) | MAR (FAO-WOCAT LPD) | MAR (JRC LPD) |
| MCO | MCO (Trends.Earth LPD) | MCO (FAO-WOCAT LPD) | MCO (JRC LPD) |
| MDA | MDA (Trends.Earth LPD) | MDA (FAO-WOCAT LPD) | MDA (JRC LPD) |
| MDG | MDG (Trends.Earth LPD) | MDG (FAO-WOCAT LPD) | MDG (JRC LPD) |
| MDV | MDV (Trends.Earth LPD) | MDV (FAO-WOCAT LPD) | MDV (JRC LPD) |
| MEX | MEX (Trends.Earth LPD) | MEX (FAO-WOCAT LPD) | MEX (JRC LPD) |
| MHL | MHL (Trends.Earth LPD) | MHL (FAO-WOCAT LPD) | MHL (JRC LPD) |
| MKD | MKD (Trends.Earth LPD) | MKD (FAO-WOCAT LPD) | MKD (JRC LPD) |
| MLI | MLI (Trends.Earth LPD) | MLI (FAO-WOCAT LPD) | MLI (JRC LPD) |
| MLT | MLT (Trends.Earth LPD) | MLT (FAO-WOCAT LPD) | MLT (JRC LPD) |



| | 15.3.1
Trends.Earth LPD | 15.3.1
FAO-WOCAT LPD | 15.3.1
JRC LPD |
|-----|----------------------------|-------------------------|-------------------|
| MMR | MMR (Trends.Earth LPD) | MMR (FAO-WOCAT LPD) | MMR (JRC LPD) |
| MNE | MNE (Trends.Earth LPD) | MNE (FAO-WOCAT LPD) | MNE (JRC LPD) |
| MNG | MNG (Trends.Earth LPD) | MNG (FAO-WOCAT LPD) | MNG (JRC LPD) |
| MNP | MNP (Trends.Earth LPD) | MNP (FAO-WOCAT LPD) | MNP (JRC LPD) |
| MOZ | MOZ (Trends.Earth LPD) | MOZ (FAO-WOCAT LPD) | MOZ (JRC LPD) |
| MRT | MRT (Trends.Earth LPD) | MRT (FAO-WOCAT LPD) | MRT (JRC LPD) |
| MSR | MSR (Trends.Earth LPD) | MSR (FAO-WOCAT LPD) | MSR (JRC LPD) |
| MTQ | MTQ (Trends.Earth LPD) | MTQ (FAO-WOCAT LPD) | MTQ (JRC LPD) |
| MUS | MUS (Trends.Earth LPD) | MUS (FAO-WOCAT LPD) | MUS (JRC LPD) |
| MWI | MWI (Trends.Earth LPD) | MWI (FAO-WOCAT LPD) | MWI (JRC LPD) |
| MYS | MYS (Trends.Earth LPD) | MYS (FAO-WOCAT LPD) | MYS (JRC LPD) |
| MYT | MYT (Trends.Earth LPD) | MYT (FAO-WOCAT LPD) | MYT (JRC LPD) |
| NAM | NAM (Trends.Earth LPD) | NAM (FAO-WOCAT LPD) | NAM (JRC LPD) |
| NCL | NCL (Trends.Earth LPD) | NCL (FAO-WOCAT LPD) | NCL (JRC LPD) |
| NER | NER (Trends.Earth LPD) | NER (FAO-WOCAT LPD) | NER (JRC LPD) |
| NGA | NGA (Trends.Earth LPD) | NGA (FAO-WOCAT LPD) | NGA (JRC LPD) |
| NIC | NIC (Trends.Earth LPD) | NIC (FAO-WOCAT LPD) | NIC (JRC LPD) |
| NIU | NIU (Trends.Earth LPD) | NIU (FAO-WOCAT LPD) | NIU (JRC LPD) |
| NLD | NLD (Trends.Earth LPD) | NLD (FAO-WOCAT LPD) | NLD (JRC LPD) |
| NOR | NOR (Trends.Earth LPD) | NOR (FAO-WOCAT LPD) | NOR (JRC LPD) |



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|--|---|--|---|
| NPL | NPL (Trends.Earth LPD) | NPL (FAO-WOCAT LPD) | NPL (JRC LPD) |
| NRU | NRU (Trends.Earth LPD) | NRU (FAO-WOCAT LPD) | NRU (JRC LPD) |
| NZL | NZL (Trends.Earth LPD) | NZL (FAO-WOCAT LPD) | NZL (JRC LPD) |
| OMN | OMN (Trends.Earth LPD) | OMN (FAO-WOCAT LPD) | OMN (JRC LPD) |
| PAK | PAK (Trends.Earth LPD) | PAK (FAO-WOCAT LPD) | PAK (JRC LPD) |
| PAN | PAN (Trends.Earth LPD) | PAN (FAO-WOCAT LPD) | PAN (JRC LPD) |
| PCN | PCN (Trends.Earth LPD) | PCN (FAO-WOCAT LPD) | PCN (JRC LPD) |
| PER | PER (Trends.Earth LPD) | PER (FAO-WOCAT LPD) | PER (JRC LPD) |
| PHL | PHL (Trends.Earth LPD) | PHL (FAO-WOCAT LPD) | PHL (JRC LPD) |
| PLW | PLW (Trends.Earth LPD) | PLW (FAO-WOCAT LPD) | PLW (JRC LPD) |
| PNG | PNG (Trends.Earth LPD) | PNG (FAO-WOCAT LPD) | PNG (JRC LPD) |
| POL | POL (Trends.Earth LPD) | POL (FAO-WOCAT LPD) | POL (JRC LPD) |
| PRK | PRK (Trends.Earth LPD) | PRK (FAO-WOCAT LPD) | PRK (JRC LPD) |
| PRT | PRT (Trends.Earth LPD) | PRT (FAO-WOCAT LPD) | PRT (JRC LPD) |
| PRY | PRY (Trends.Earth LPD) | PRY (FAO-WOCAT LPD) | PRY (JRC LPD) |
| PSE | PSE (Trends.Earth LPD) | PSE (FAO-WOCAT LPD) | PSE (JRC LPD) |
| PYF | PYF (Trends.Earth LPD) | PYF (FAO-WOCAT LPD) | PYF (JRC LPD) |
| QAT | QAT (Trends.Earth LPD) | QAT (FAO-WOCAT LPD) | QAT (JRC LPD) |
| REU | REU (Trends.Earth LPD) | REU (FAO-WOCAT LPD) | REU (JRC LPD) |
| ROU | ROU (Trends.Earth LPD) | ROU (FAO-WOCAT LPD) | ROU (JRC LPD) |



| ■■■■■ | ■■■ 15.3.1 ■■
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Trends.Earth LPD | ■■■ 15.3.1 ■■
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FAO-WOCAT | ■■■ 15.3.1 ■■
■■■■■ JRC LPD |
|-------|--|---|--------------------------------|
| RUS | RUS (Trends.Earth LPD) | RUS (FAO-WOCAT LPD) | RUS (JRC LPD) |
| RWA | RWA (Trends.Earth LPD) | RWA (FAO-WOCAT LPD) | RWA (JRC LPD) |
| SAU | SAU (Trends.Earth LPD) | SAU (FAO-WOCAT LPD) | SAU (JRC LPD) |
| SDN | SDN (Trends.Earth LPD) | SDN (FAO-WOCAT LPD) | SDN (JRC LPD) |
| SEN | SEN (Trends.Earth LPD) | SEN (FAO-WOCAT LPD) | SEN (JRC LPD) |
| SGP | SGP (Trends.Earth LPD) | SGP (FAO-WOCAT LPD) | SGP (JRC LPD) |
| SHN | SHN (Trends.Earth LPD) | SHN (FAO-WOCAT LPD) | SHN (JRC LPD) |
| SLB | SLB (Trends.Earth LPD) | SLB (FAO-WOCAT LPD) | SLB (JRC LPD) |
| SLE | SLE (Trends.Earth LPD) | SLE (FAO-WOCAT LPD) | SLE (JRC LPD) |
| SLV | SLV (Trends.Earth LPD) | SLV (FAO-WOCAT LPD) | SLV (JRC LPD) |
| SMR | SMR (Trends.Earth LPD) | SMR (FAO-WOCAT LPD) | SMR (JRC LPD) |
| SOM | SOM (Trends.Earth LPD) | SOM (FAO-WOCAT LPD) | SOM (JRC LPD) |
| SRB | SRB (Trends.Earth LPD) | SRB (FAO-WOCAT LPD) | SRB (JRC LPD) |
| SSD | SSD (Trends.Earth LPD) | SSD (FAO-WOCAT LPD) | SSD (JRC LPD) |
| STP | STP (Trends.Earth LPD) | STP (FAO-WOCAT LPD) | STP (JRC LPD) |
| SUR | SUR (Trends.Earth LPD) | SUR (FAO-WOCAT LPD) | SUR (JRC LPD) |
| SVK | SVK (Trends.Earth LPD) | SVK (FAO-WOCAT LPD) | SVK (JRC LPD) |
| SVN | SVN (Trends.Earth LPD) | SVN (FAO-WOCAT LPD) | SVN (JRC LPD) |
| SWE | SWE (Trends.Earth LPD) | SWE (FAO-WOCAT LPD) | SWE (JRC LPD) |
| SWZ | SWZ (Trends.Earth LPD) | SWZ (FAO-WOCAT LPD) | SWZ (JRC LPD) |



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|---|--|---|--|---|
| USA | USA (Trends.Earth LPD) | USA (FAO-WOCAT LPD) | USA (JRC LPD) | |
| UZB | UZB (Trends.Earth LPD) | UZB (FAO-WOCAT LPD) | UZB (JRC LPD) | |
| VAT | VAT (Trends.Earth LPD) | VAT (FAO-WOCAT LPD) | VAT (JRC LPD) | |
| VCT | VCT (Trends.Earth LPD) | VCT (FAO-WOCAT LPD) | VCT (JRC LPD) | |
| VEN | VEN (Trends.Earth LPD) | VEN (FAO-WOCAT LPD) | VEN (JRC LPD) | |
| VGB | VGB (Trends.Earth LPD) | VGB (FAO-WOCAT LPD) | VGB (JRC LPD) | |
| VIR | VIR (Trends.Earth LPD) | VIR (FAO-WOCAT LPD) | VIR (JRC LPD) | |
| VNM | VNM (Trends.Earth LPD) | VNM (FAO-WOCAT LPD) | VNM (JRC LPD) | |
| VUT | VUT (Trends.Earth LPD) | VUT (FAO-WOCAT LPD) | VUT (JRC LPD) | |
| WLF | WLF (Trends.Earth LPD) | WLF (FAO-WOCAT LPD) | WLF (JRC LPD) | |
| WSM | WSM (Trends.Earth LPD) | WSM (FAO-WOCAT LPD) | WSM (JRC LPD) | |
| XKX | XKX (Trends.Earth LPD) | XKX (FAO-WOCAT LPD) | XKX (JRC LPD) | |
| YEM | YEM (Trends.Earth LPD) | YEM (FAO-WOCAT LPD) | YEM (JRC LPD) | |
| ZAF | ZAF (Trends.Earth LPD) | ZAF (FAO-WOCAT LPD) | ZAF (JRC LPD) | |
| ZMB | ZMB (Trends.Earth LPD) | ZMB (FAO-WOCAT LPD) | ZMB (JRC LPD) | |
| ZWE | ZWE (Trends.Earth LPD) | ZWE (FAO-WOCAT LPD) | ZWE (JRC LPD) | |

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3] (<https://www.unccd.int/resources/manuals-and-guides/good-practice-guidance-national-reporting-unccd-strategic-objective-3>). (SPI) 12- Global Multi-Index Drought (GMID) UK-CEH, — SPI, Trends.Earth CHIRPS.

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|---|---|---|
| ABW | ABW (UK-CEH) | ABW (CHIRPS) |
| AFG | AFG (UK-CEH) | AFG (CHIRPS) |
| AGO | AGO (UK-CEH) | AGO (CHIRPS) |
| AIA | AIA (UK-CEH) | AIA (CHIRPS) |
| ALB | ALB (UK-CEH) | ALB (CHIRPS) |
| AND | AND (UK-CEH) | AND (CHIRPS) |
| ARE | ARE (UK-CEH) | ARE (CHIRPS) |
| ARG | ARG (UK-CEH) | ARG (CHIRPS) |
| ARM | ARM (UK-CEH) | ARM (CHIRPS) |
| ASM | ASM (UK-CEH) | ASM (CHIRPS) |
| ATG | ATG (UK-CEH) | ATG (CHIRPS) |
| AUS | AUS (UK-CEH) | AUS (CHIRPS) |
| AUT | AUT (UK-CEH) | AUT (CHIRPS) |
| AZE | AZE (UK-CEH) | AZE (CHIRPS) |
| BDI | BDI (UK-CEH) | BDI (CHIRPS) |
| BEL | BEL (UK-CEH) | BEL (CHIRPS) |
| BEN | BEN (UK-CEH) | BEN (CHIRPS) |
| BES | BES (UK-CEH) | BES (CHIRPS) |
| BFA | BFA (UK-CEH) | BFA (CHIRPS) |
| BGD | BGD (UK-CEH) | BGD (CHIRPS) |
| BGR | BGR (UK-CEH) | BGR (CHIRPS) |
| BHR | BHR (UK-CEH) | BHR (CHIRPS) |
| BHS | BHS (UK-CEH) | BHS (CHIRPS) |
| BIH | BIH (UK-CEH) | BIH (CHIRPS) |
| BLM | BLM (UK-CEH) | BLM (CHIRPS) |
| BLR | BLR (UK-CEH) | BLR (CHIRPS) |
| BLZ | BLZ (UK-CEH) | BLZ (CHIRPS) |



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|--|--|--|
| BMU | BMU (UK-CEH) | BMU (CHIRPS) |
| BOL | BOL (UK-CEH) | BOL (CHIRPS) |
| BRA | BRA (UK-CEH) | BRA (CHIRPS) |
| BRB | BRB (UK-CEH) | BRB (CHIRPS) |
| BRN | BRN (UK-CEH) | BRN (CHIRPS) |
| BTN | BTN (UK-CEH) | BTN (CHIRPS) |
| BWA | BWA (UK-CEH) | BWA (CHIRPS) |
| CAF | CAF (UK-CEH) | CAF (CHIRPS) |
| CAN | CAN (UK-CEH) | CAN (CHIRPS) |
| CHE | CHE (UK-CEH) | CHE (CHIRPS) |
| CHL | CHL (UK-CEH) | CHL (CHIRPS) |
| CHN | CHN (UK-CEH) | CHN (CHIRPS) |
| CIV | CIV (UK-CEH) | CIV (CHIRPS) |
| CMR | CMR (UK-CEH) | CMR (CHIRPS) |
| COD | COD (UK-CEH) | COD (CHIRPS) |
| COG | COG (UK-CEH) | COG (CHIRPS) |
| COK | COK (UK-CEH) | COK (CHIRPS) |
| COL | COL (UK-CEH) | COL (CHIRPS) |
| COM | COM (UK-CEH) | COM (CHIRPS) |
| CPV | CPV (UK-CEH) | CPV (CHIRPS) |
| CRI | CRI (UK-CEH) | CRI (CHIRPS) |
| CUB | CUB (UK-CEH) | CUB (CHIRPS) |
| CUW | CUW (UK-CEH) | CUW (CHIRPS) |
| CYM | CYM (UK-CEH) | CYM (CHIRPS) |
| CYP | CYP (UK-CEH) | CYP (CHIRPS) |
| CZE | CZE (UK-CEH) | CZE (CHIRPS) |
| DEU | DEU (UK-CEH) | DEU (CHIRPS) |
| DJI | DJI (UK-CEH) | DJI (CHIRPS) |
| DMA | DMA (UK-CEH) | DMA (CHIRPS) |
| DNK | DNK (UK-CEH) | DNK (CHIRPS) |
| DOM | DOM (UK-CEH) | DOM (CHIRPS) |
| DZA | DZA (UK-CEH) | DZA (CHIRPS) |
| ECU | ECU (UK-CEH) | ECU (CHIRPS) |
| EGY | EGY (UK-CEH) | EGY (CHIRPS) |
| ERI | ERI (UK-CEH) | ERI (CHIRPS) |



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|---|--|--|
| ESP | ESP (UK-CEH) | ESP (CHIRPS) |
| EST | EST (UK-CEH) | EST (CHIRPS) |
| ETH | ETH (UK-CEH) | ETH (CHIRPS) |
| FIN | FIN (UK-CEH) | FIN (CHIRPS) |
| FJI | FJI (UK-CEH) | FJI (CHIRPS) |
| FLK | FLK (UK-CEH) | FLK (CHIRPS) |
| FRA | FRA (UK-CEH) | FRA (CHIRPS) |
| FRO | FRO (UK-CEH) | FRO (CHIRPS) |
| FSM | FSM (UK-CEH) | FSM (CHIRPS) |
| GAB | GAB (UK-CEH) | GAB (CHIRPS) |
| GBR | GBR (UK-CEH) | GBR (CHIRPS) |
| GEO | GEO (UK-CEH) | GEO (CHIRPS) |
| GGY | GGY (UK-CEH) | GGY (CHIRPS) |
| GHA | GHA (UK-CEH) | GHA (CHIRPS) |
| GIB | GIB (UK-CEH) | GIB (CHIRPS) |
| GIN | GIN (UK-CEH) | GIN (CHIRPS) |
| GLP | GLP (UK-CEH) | GLP (CHIRPS) |
| GMB | GMB (UK-CEH) | GMB (CHIRPS) |
| GNB | GNB (UK-CEH) | GNB (CHIRPS) |
| GNQ | GNQ (UK-CEH) | GNQ (CHIRPS) |
| GRC | GRC (UK-CEH) | GRC (CHIRPS) |
| GRD | GRD (UK-CEH) | GRD (CHIRPS) |
| GRL | GRL (UK-CEH) | GRL (CHIRPS) |
| GTM | GTM (UK-CEH) | GTM (CHIRPS) |
| GUF | GUF (UK-CEH) | GUF (CHIRPS) |
| GUM | GUM (UK-CEH) | GUM (CHIRPS) |
| GUY | GUY (UK-CEH) | GUY (CHIRPS) |
| HND | HND (UK-CEH) | HND (CHIRPS) |
| HRV | HRV (UK-CEH) | HRV (CHIRPS) |
| HTI | HTI (UK-CEH) | HTI (CHIRPS) |
| HUN | HUN (UK-CEH) | HUN (CHIRPS) |
| IDN | IDN (UK-CEH) | IDN (CHIRPS) |
| IMN | IMN (UK-CEH) | IMN (CHIRPS) |
| IND | IND (UK-CEH) | IND (CHIRPS) |
| IRL | IRL (UK-CEH) | IRL (CHIRPS) |



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|--|--|--|
| IRN | IRN (UK-CEH) | IRN (CHIRPS) |
| IRQ | IRQ (UK-CEH) | IRQ (CHIRPS) |
| ISL | ISL (UK-CEH) | ISL (CHIRPS) |
| ISR | ISR (UK-CEH) | ISR (CHIRPS) |
| ITA | ITA (UK-CEH) | ITA (CHIRPS) |
| JAM | JAM (UK-CEH) | JAM (CHIRPS) |
| JOR | JOR (UK-CEH) | JOR (CHIRPS) |
| JPN | JPN (UK-CEH) | JPN (CHIRPS) |
| KAZ | KAZ (UK-CEH) | KAZ (CHIRPS) |
| KEN | KEN (UK-CEH) | KEN (CHIRPS) |
| KGZ | KGZ (UK-CEH) | KGZ (CHIRPS) |
| KHM | KHM (UK-CEH) | KHM (CHIRPS) |
| KIR | KIR (UK-CEH) | KIR (CHIRPS) |
| KNA | KNA (UK-CEH) | KNA (CHIRPS) |
| KOR | KOR (UK-CEH) | KOR (CHIRPS) |
| KWT | KWT (UK-CEH) | KWT (CHIRPS) |
| LAO | LAO (UK-CEH) | LAO (CHIRPS) |
| LBN | LBN (UK-CEH) | LBN (CHIRPS) |
| LBR | LBR (UK-CEH) | LBR (CHIRPS) |
| LBY | LBY (UK-CEH) | LBY (CHIRPS) |
| LCA | LCA (UK-CEH) | LCA (CHIRPS) |
| LIE | LIE (UK-CEH) | LIE (CHIRPS) |
| LKA | LKA (UK-CEH) | LKA (CHIRPS) |
| LSO | LSO (UK-CEH) | LSO (CHIRPS) |
| LTU | LTU (UK-CEH) | LTU (CHIRPS) |
| LUX | LUX (UK-CEH) | LUX (CHIRPS) |
| LVA | LVA (UK-CEH) | LVA (CHIRPS) |
| MAR | MAR (UK-CEH) | MAR (CHIRPS) |
| MCO | MCO (UK-CEH) | MCO (CHIRPS) |
| MDA | MDA (UK-CEH) | MDA (CHIRPS) |
| MDG | MDG (UK-CEH) | MDG (CHIRPS) |
| MDV | MDV (UK-CEH) | MDV (CHIRPS) |
| MEX | MEX (UK-CEH) | MEX (CHIRPS) |
| MHL | MHL (UK-CEH) | MHL (CHIRPS) |
| MKD | MKD (UK-CEH) | MKD (CHIRPS) |



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|--|--|--|
| MLI | MLI (UK-CEH) | MLI (CHIRPS) |
| MLT | MLT (UK-CEH) | MLT (CHIRPS) |
| MMR | MMR (UK-CEH) | MMR (CHIRPS) |
| MNE | MNE (UK-CEH) | MNE (CHIRPS) |
| MNG | MNG (UK-CEH) | MNG (CHIRPS) |
| MNP | MNP (UK-CEH) | MNP (CHIRPS) |
| MOZ | MOZ (UK-CEH) | MOZ (CHIRPS) |
| MRT | MRT (UK-CEH) | MRT (CHIRPS) |
| MSR | MSR (UK-CEH) | MSR (CHIRPS) |
| MTQ | MTQ (UK-CEH) | MTQ (CHIRPS) |
| MUS | MUS (UK-CEH) | MUS (CHIRPS) |
| MWI | MWI (UK-CEH) | MWI (CHIRPS) |
| MYS | MYS (UK-CEH) | MYS (CHIRPS) |
| MYT | MYT (UK-CEH) | MYT (CHIRPS) |
| NAM | NAM (UK-CEH) | NAM (CHIRPS) |
| NCL | NCL (UK-CEH) | NCL (CHIRPS) |
| NER | NER (UK-CEH) | NER (CHIRPS) |
| NGA | NGA (UK-CEH) | NGA (CHIRPS) |
| NIC | NIC (UK-CEH) | NIC (CHIRPS) |
| NIU | NIU (UK-CEH) | NIU (CHIRPS) |
| NLD | NLD (UK-CEH) | NLD (CHIRPS) |
| NOR | NOR (UK-CEH) | NOR (CHIRPS) |
| NPL | NPL (UK-CEH) | NPL (CHIRPS) |
| NRU | NRU (UK-CEH) | NRU (CHIRPS) |
| NZL | NZL (UK-CEH) | NZL (CHIRPS) |
| OMN | OMN (UK-CEH) | OMN (CHIRPS) |
| PAK | PAK (UK-CEH) | PAK (CHIRPS) |
| PAN | PAN (UK-CEH) | PAN (CHIRPS) |
| PCN | PCN (UK-CEH) | PCN (CHIRPS) |
| PER | PER (UK-CEH) | PER (CHIRPS) |
| PHL | PHL (UK-CEH) | PHL (CHIRPS) |
| PLW | PLW (UK-CEH) | PLW (CHIRPS) |
| PNG | PNG (UK-CEH) | PNG (CHIRPS) |
| POL | POL (UK-CEH) | POL (CHIRPS) |
| PRK | PRK (UK-CEH) | PRK (CHIRPS) |



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|---|--|--|
| PRT | PRT (UK-CEH) | PRT (CHIRPS) |
| PRY | PRY (UK-CEH) | PRY (CHIRPS) |
| PSE | PSE (UK-CEH) | PSE (CHIRPS) |
| PYF | PYF (UK-CEH) | PYF (CHIRPS) |
| QAT | QAT (UK-CEH) | QAT (CHIRPS) |
| REU | REU (UK-CEH) | REU (CHIRPS) |
| ROU | ROU (UK-CEH) | ROU (CHIRPS) |
| RUS | RUS (UK-CEH) | RUS (CHIRPS) |
| RWA | RWA (UK-CEH) | RWA (CHIRPS) |
| SAU | SAU (UK-CEH) | SAU (CHIRPS) |
| SDN | SDN (UK-CEH) | SDN (CHIRPS) |
| SEN | SEN (UK-CEH) | SEN (CHIRPS) |
| SGP | SGP (UK-CEH) | SGP (CHIRPS) |
| SHN | SHN (UK-CEH) | SHN (CHIRPS) |
| SLB | SLB (UK-CEH) | SLB (CHIRPS) |
| SLE | SLE (UK-CEH) | SLE (CHIRPS) |
| SLV | SLV (UK-CEH) | SLV (CHIRPS) |
| SMR | SMR (UK-CEH) | SMR (CHIRPS) |
| SOM | SOM (UK-CEH) | SOM (CHIRPS) |
| SRB | SRB (UK-CEH) | SRB (CHIRPS) |
| SSD | SSD (UK-CEH) | SSD (CHIRPS) |
| STP | STP (UK-CEH) | STP (CHIRPS) |
| SUR | SUR (UK-CEH) | SUR (CHIRPS) |
| SVK | SVK (UK-CEH) | SVK (CHIRPS) |
| SVN | SVN (UK-CEH) | SVN (CHIRPS) |
| SWE | SWE (UK-CEH) | SWE (CHIRPS) |
| SWZ | SWZ (UK-CEH) | SWZ (CHIRPS) |
| SYC | SYC (UK-CEH) | SYC (CHIRPS) |
| SYR | SYR (UK-CEH) | SYR (CHIRPS) |
| TCA | TCA (UK-CEH) | TCA (CHIRPS) |
| TCD | TCD (UK-CEH) | TCD (CHIRPS) |
| TGO | TGO (UK-CEH) | TGO (CHIRPS) |
| THA | THA (UK-CEH) | THA (CHIRPS) |
| TJK | TJK (UK-CEH) | TJK (CHIRPS) |
| TKL | TKL (UK-CEH) | TKL (CHIRPS) |



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|---|---|---|
| TKM | TKM (UK-CEH) | TKM (CHIRPS) |
| TLS | TLS (UK-CEH) | TLS (CHIRPS) |
| TON | TON (UK-CEH) | TON (CHIRPS) |
| TTO | TTO (UK-CEH) | TTO (CHIRPS) |
| TUN | TUN (UK-CEH) | TUN (CHIRPS) |
| TUR | TUR (UK-CEH) | TUR (CHIRPS) |
| TUV | TUV (UK-CEH) | TUV (CHIRPS) |
| TWN | TWN (UK-CEH) | TWN (CHIRPS) |
| TZA | TZA (UK-CEH) | TZA (CHIRPS) |
| UGA | UGA (UK-CEH) | UGA (CHIRPS) |
| UKR | UKR (UK-CEH) | UKR (CHIRPS) |
| URY | URY (UK-CEH) | URY (CHIRPS) |
| USA | USA (UK-CEH) | USA (CHIRPS) |
| UZB | UZB (UK-CEH) | UZB (CHIRPS) |
| VAT | VAT (UK-CEH) | VAT (CHIRPS) |
| VCT | VCT (UK-CEH) | VCT (CHIRPS) |
| VEN | VEN (UK-CEH) | VEN (CHIRPS) |
| VGB | VGB (UK-CEH) | VGB (CHIRPS) |
| VIR | VIR (UK-CEH) | VIR (CHIRPS) |
| VNM | VNM (UK-CEH) | VNM (CHIRPS) |
| VUT | VUT (UK-CEH) | VUT (CHIRPS) |
| WLF | WLF (UK-CEH) | WLF (CHIRPS) |
| WSM | WSM (UK-CEH) | WSM (CHIRPS) |
| XKX | XKX (UK-CEH) | XKX (CHIRPS) |
| YEM | YEM (UK-CEH) | YEM (CHIRPS) |
| ZAF | ZAF (UK-CEH) | ZAF (CHIRPS) |
| ZMB | ZMB (UK-CEH) | ZMB (CHIRPS) |
| ZWE | ZWE (UK-CEH) | ZWE (CHIRPS) |

Advanced

Installing Numba for local calculations

Numba can speed up some local Trends.Earth calculations. It is not included by default with the Trends.Earth installer given limitations on packaging binaries for distribution via the standard QGIS repositories. To use it, install it in the Python environment used by QGIS. Close QGIS before installing packages, and restart it afterward.

Windows

Open the **OSGeo4W Shell** installed with your QGIS installation (use the shell for the same QGIS version you run Trends.Earth in). Run:

```
python -m pip install --user numba
```

If the shell reports that pip is unavailable, or the installation conflicts with packages supplied by QGIS, consult your QGIS distribution's package manager rather than replacing its bundled packages.

macOS

Open **Plugins > Python Console** in QGIS and run:

```
import sys
print(sys.executable)
```

Quit QGIS. If the printed path points to a Python executable, use that exact path in Terminal (substitute your own path for `/path/to/qgis/python3`):

```
"/path/to/qgis/python3" -m pip install --user numba
```

If the path points to the QGIS application instead of Python, use the Python interpreter provided by your QGIS installation. For example, with a Homebrew installation, use the Python from the same Homebrew environment as QGIS; with a standalone QGIS app, check the app bundle for its Python interpreter.

Linux

For QGIS installed from your distribution's package manager, install the matching Numba package from that same distribution. For example, on Debian/Ubuntu:

```
sudo apt install python3-numba
```

If QGIS instead uses a separate Python environment, activate that environment and install Numba there:

```
python -m pip install numba
```

To check the result on any platform, restart QGIS and run this in **Plugins > Python Console**:

```
import numba
print(numba.__version__)
```

If this raises `ModuleNotFoundError`, Numba was installed in a different Python environment. Check `sys.executable` and `sys.prefix` in the QGIS Python Console and select the Python environment associated with that QGIS installation before trying again.