



IO Monitor

## 10m Land Cover Maps

Every IO Monitor 10m Land Cover order includes the following maps in GeoTIFF and PNG format, along with a .CSV file of metrics with the amount of each land cover class in the area of interest.

- **10m Land Cover Map** from the selected date range.
- **10m Land Cover Baseline Map** from the selected date range, the year prior.
- **10m Land Cover Change Map** to highlight differences between years.
- Area of Interest in GeoJSON format.

Access the legend and [read more](#) about the land cover class definitions from our documentation website.

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IO Monitor

AI-powered change monitoring at unprecedented speed and scale

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## 10m Land Cover Map Class Information

### 11 Water Channel Extent

#FFFFFF

Full extent of water under normal circumstances (maximum long-term footprint outside of flooding or other exceptional events). Covers areas like lake beds and arroyos where water might be present regularly, but only seasonally.

### 12 Variable Water

#BFDAF5

Intermittent water flow or standing water, representing seasonal fluctuation in cover, weather events, or human activities. At times this class may occur due to frequent turbidity, algal blooms, ice cover, pollution, or glare.

### 13 Persistent Water

#25579D

Sustained water flow or standing water, representing permanent or sustained seasonal cover.

### 30 Snow/Ice

#A8EBFF

Large, homogenous areas of persistent snow or ice, typically only in mountain areas or high latitudes.

### 40 Bare Ground

#A59B8F

Areas of rock or soil with very sparse to no vegetation for the entire year; large areas of sand with little to no vegetation; examples: exposed rock or soil, desert, dry salt flats, dry lake beds.

### 61 Sparse Rangeland

#F1E9B9

Vegetation that is some mix of grasses and/or dispersed, short, woody scrub, with or without some bare ground cover. May contain small isolated trees. Defined as a rangeland prediction with a maximum NDVI value less than a biome-specific threshold during the given time period.

### 62 Dense Rangeland

#A9A76A

Healthy, closely packed vegetation that is predominantly dense, short (under 5m) woody shrubs with very little to no mixed grass or bare ground cover. May contain small isolated trees. Within and around areas classified as built, this class can also include highly manicured lawns or fields. Defined as a rangeland prediction with a maximum NDVI value greater than or equal to a biome-specific threshold during the given time period.

### 80 Flooded Vegetation

#7A87C6

Areas of vegetation with obvious intermixing of water throughout the majority of the given time period; mostly herbaceous (non-woody) vegetation and/or scattered tree (mangrove)/scrub/shrub cover. Thick mangrove, swamp, or seasonal wetland may fall under their next-best-fit vegetation classes if water is not observed during the given time period.

### 101 Sparse Trees

#AECCA1

Vegetation that is predominantly tree canopy cover (vegetation over 5m high) with some mixing of other vegetation or bare ground due to relatively thin leaf cover and/or dispersed distribution of trees. In some circumstances this class can also indicate trees gaining/losing leaves or dying/growing during the given time period. Defined as a tree prediction with a maximum NDVI value lower than a biome-specific threshold during the given time period.

### 102 Dense Trees

#005E24

Healthy, closely packed tree canopy cover (vegetation over 5m high) with very little to no vegetation or bare ground cover. Defined as a tree prediction with a maximum Normalized Difference Vegetation (NDVI) value greater than or equal to a biome-specific threshold during the given time period.

### 141 Inactive Cropland

#E4B479

Fallow or otherwise inactive fields, sometimes mixed with small infrastructure in close proximity of active crops.

### 142 Active Croplands

#CB852F

Actively growing crops, irrigated pastures, and other vegetation actively managed by humans.

### 172 Low Density Built

#C44D45

Artificial, impervious surfaces, buildings, and structures mixed with vegetation that cannot be easily detangled at 10m-resolution. These areas typically represent low-density residential areas, suburban areas, large path networks or other dispersed human construction. Defined as built area with a maximum NDVI value greater than or equal to a biome-specific threshold.

### 174 High Density Built

#67000D

Artificial, impervious surfaces in the form of individual features, parts of features, or tight clusters of features with little to no mixed vegetation or bare ground. Isolated clusters of these detections represent small buildings or construction, while larger clusters are indicative of commercial, industrial, or high-density residential areas. Defined as built area with a maximum NDVI value less than a biome-specific threshold.

### 235 Change

#F20CCC

Changes between current and previous periods.

### 240 Clouds

#616161

No land cover information due to continual cloud cover.