README for animal_hectares.tif

The file contains 3 layers of information, describing estimated hectares of agricultural land presently producing animal feed and pastures.

Raster values for each 5-arcminute raster grid cell pertain to number hectares under animal feed crop and pasture production within the entire grid cell. Note that to calculate the fraction of animal agriculture hectares in the grid cell relative to the total area, one must divide by the total number of hectares in that cell, which is greatest at the equator and smaller toward the poles. Total hectares can be calculated as:

$$\text{cosine}(\text{latitude} \cdot \pi/180) \cdot 8586.325$$

where latitude is the value in degrees at the center of the grid cell.

The three layers in this multi-band raster—median_c, low_c, and high_c—pertain to hectares in land use scenarios that result in median, low, and high estimates of the global total COC respectively.

Layers

1. The median_c estimate distributes human-edible animal feed over croplands presently used to provide such feed.

2. The low_c estimate distributes human-edible animal feed over croplands consisting of the lowest carbon in potential vegetation.

3. The high_c estimate distributes human-edible animal feed over croplands consisting of the highest carbon in potential vegetation.

This multi-band raster file can be loaded into R using the stack() function using the package "rgdal".