```
#install tmap to upgrade it each time when reopen the file
#install.packages('tmap')
library(fs)
library(terra)
```

```
## terra 1.7.55
```

```
library(tidyverse)
```

```
## -- Attaching core tidyverse packages ------------------------ tidyverse 2.0.0 --
## v dplyr     1.1.4     v readr     2.1.4
## v forcats   1.0.0     v stringr   1.5.1
## v ggplot2   3.4.4     v tibble    3.2.1
## v lubridate 1.9.3     v tidyr     1.3.0
## v purrr     1.0.2
```

```
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x tidyr::extract() masks terra::extract()
## x dplyr::filter()  masks stats::filter()
## x dplyr::lag()     masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors
```

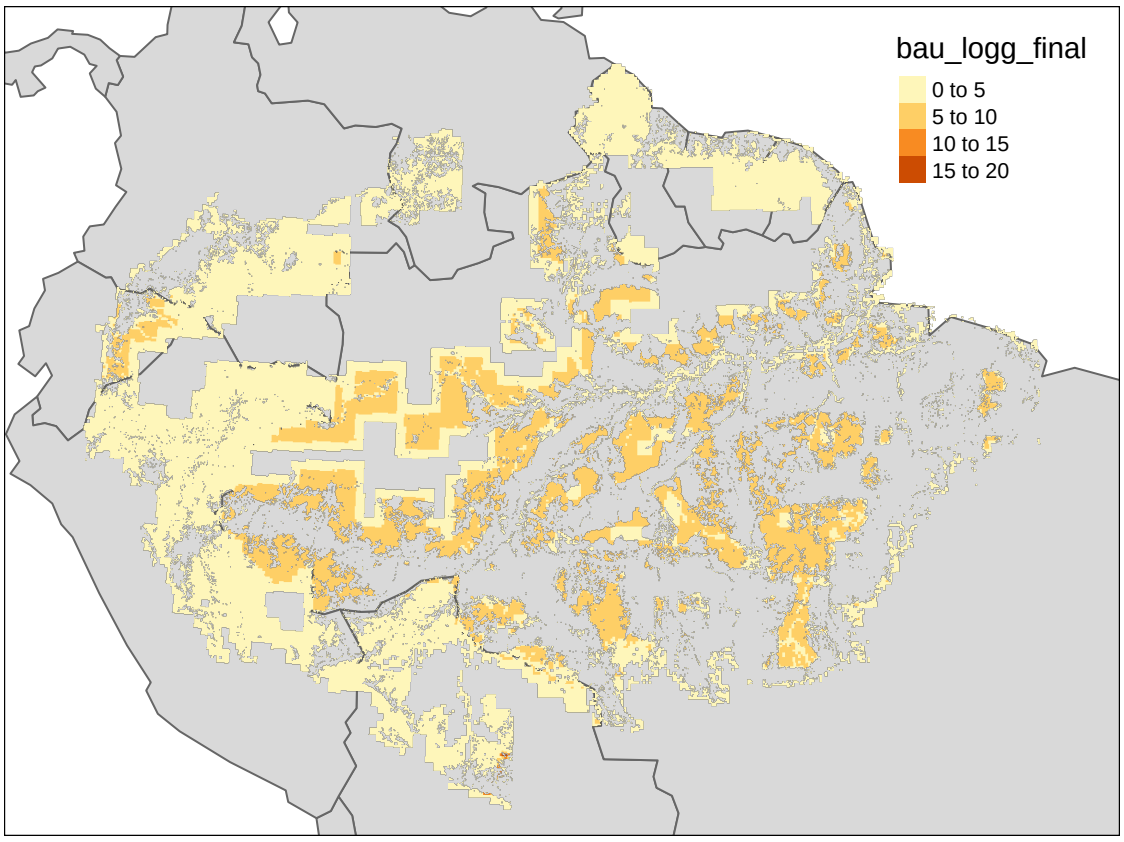
```
library(tmap)
```

```
## Breaking News: tmap 3.x is retiring. Please test v4, e.g. with
## remotes::install_github('r-tmap/tmap')
```

```
# flist <- dir_ls("data")
baulogg <-rast("bau_logg_final.tif")
baufire <-rast("bau_fire_final.tif")
fire <- rast("fire.tif")
drought <- rast("drought.tif")
edge <- rast("edge.tif")
logging <- rast("logging.tif")
```

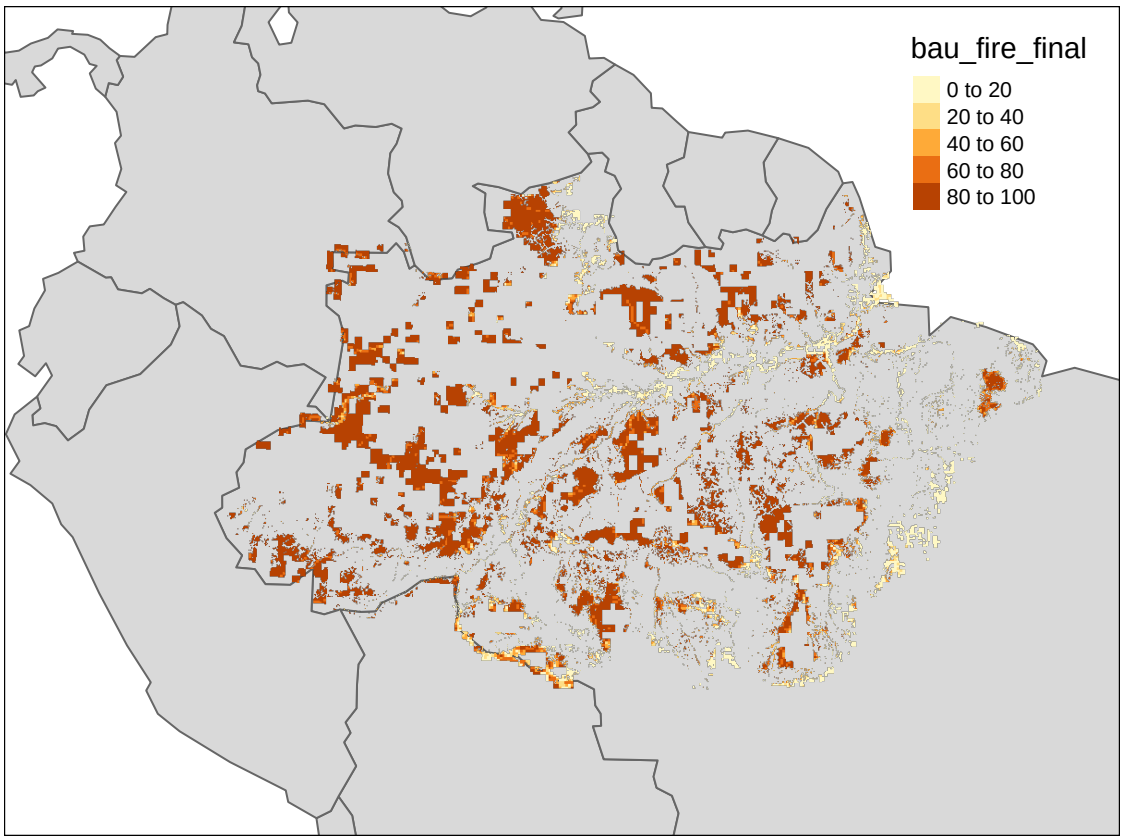
```
#tm_shape(baulogg)+tm_raster()+tm_basemap()
data("World")
baulogg[baulogg < 0] <- NA
logmap <- tm_shape(World,bbox = stars::st_as_stars(baulogg))+tm_polygons() +
  tm_shape(baulogg)+tm_raster()
print(logmap)
```

```
## stars object downsampled to 1140 by 877 cells. See tm_shape manual (argument raster.downsample)
```

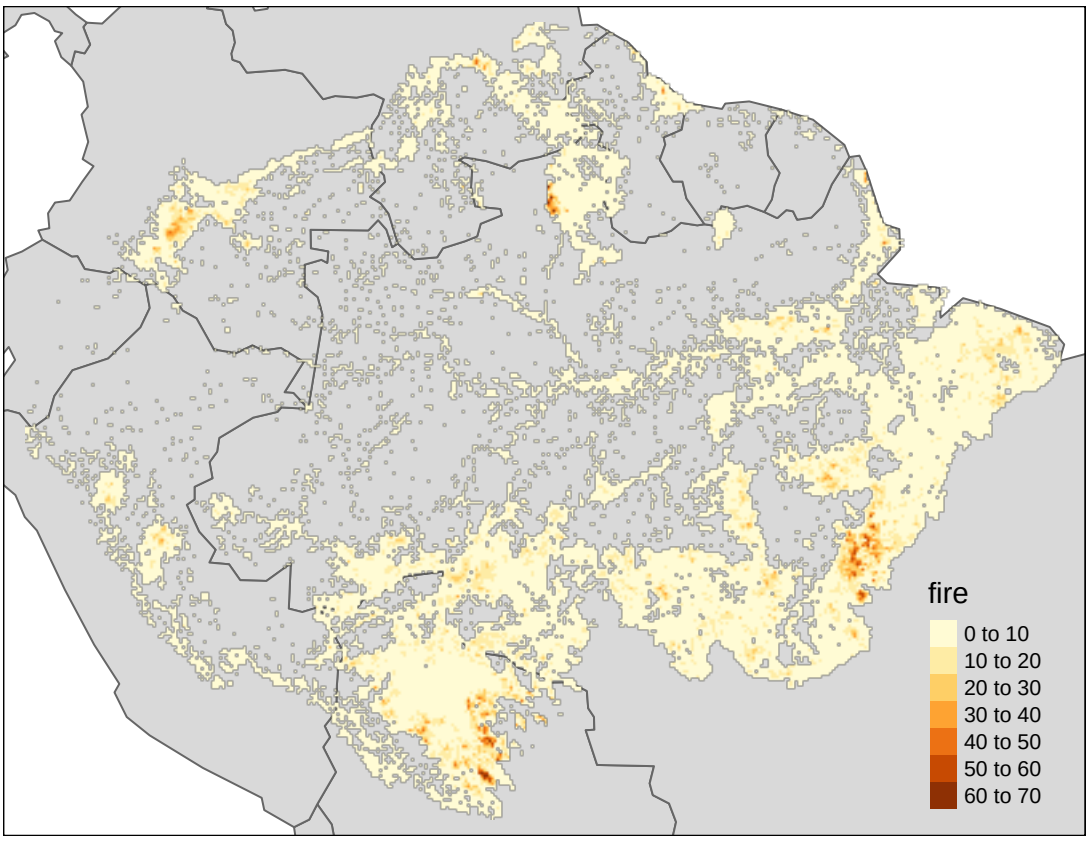



```
baufire[baufire < 0] <- NA
tm_shape(World,bbox = stars::st_as_stars(baufire))+tm_polygons() +
  tm_shape(baufire)+tm_raster()
```

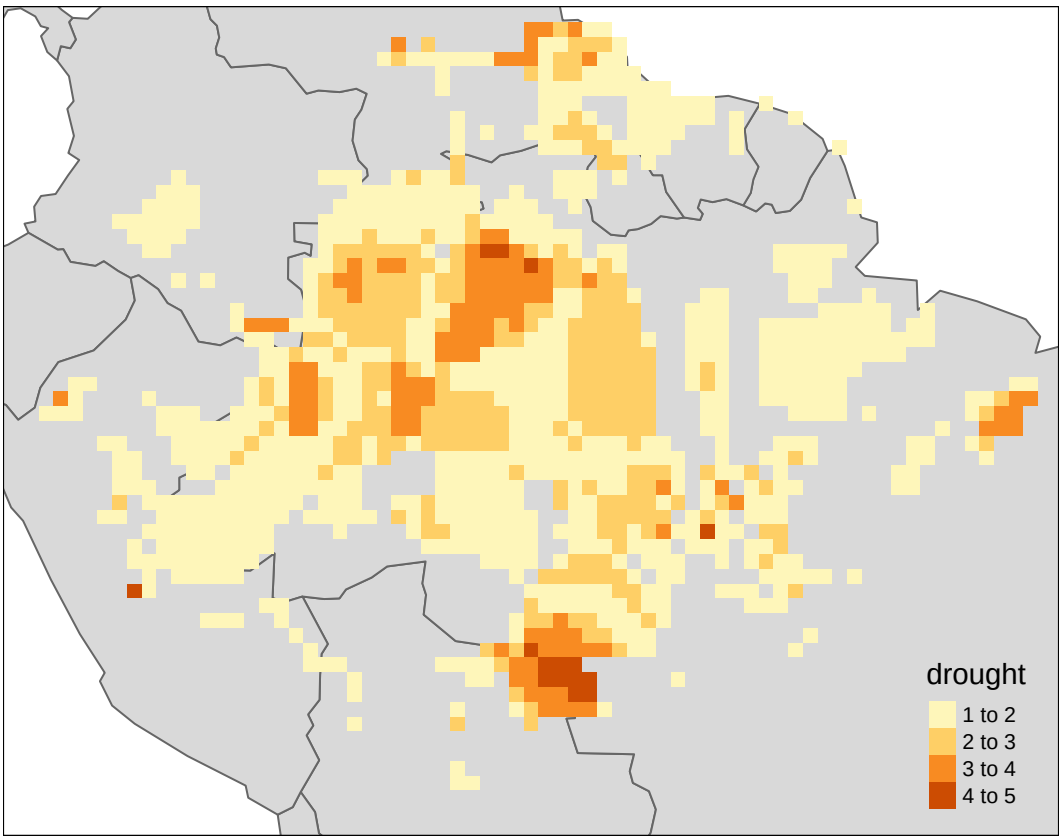
```
## stars object downsampled to 1140 by 877 cells. See tm_shape manual (argument raster.downsample)
```



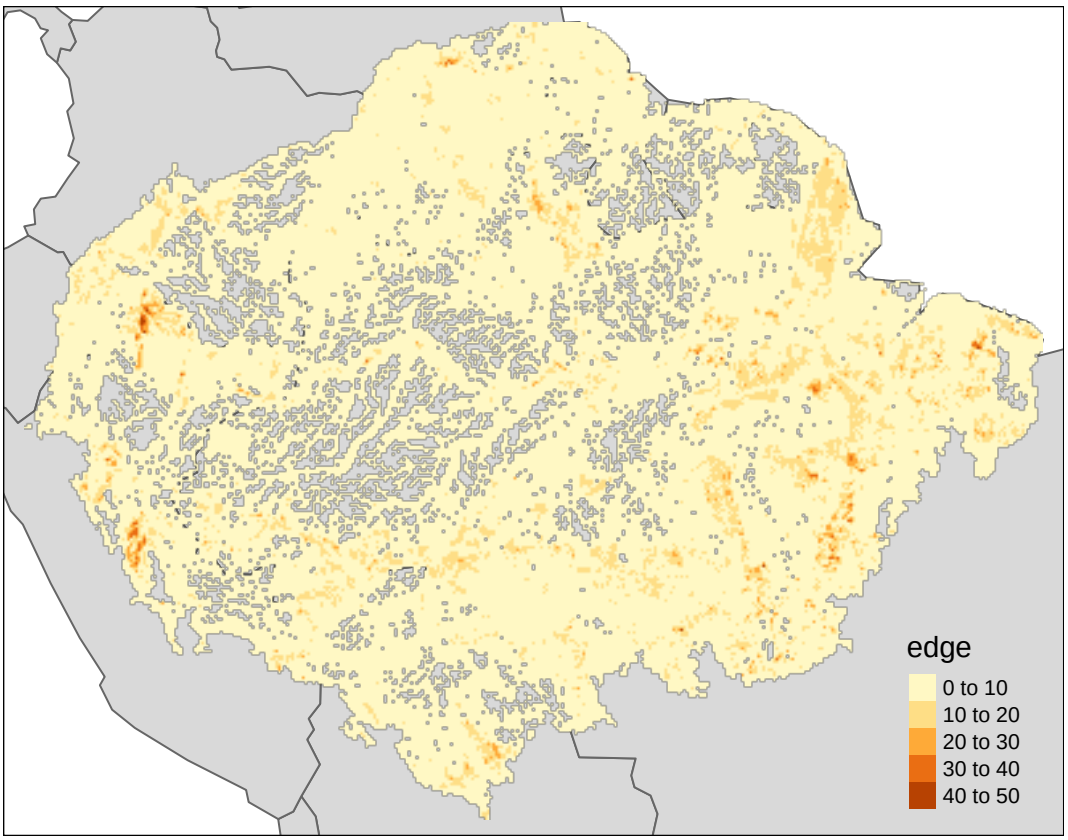

```
fire[fire == 0] <- NA
tm_shape(World,bbox = stars::st_as_stars(fire))+tm_polygons() +
  tm_shape(fire)+tm_raster(n=6)
```



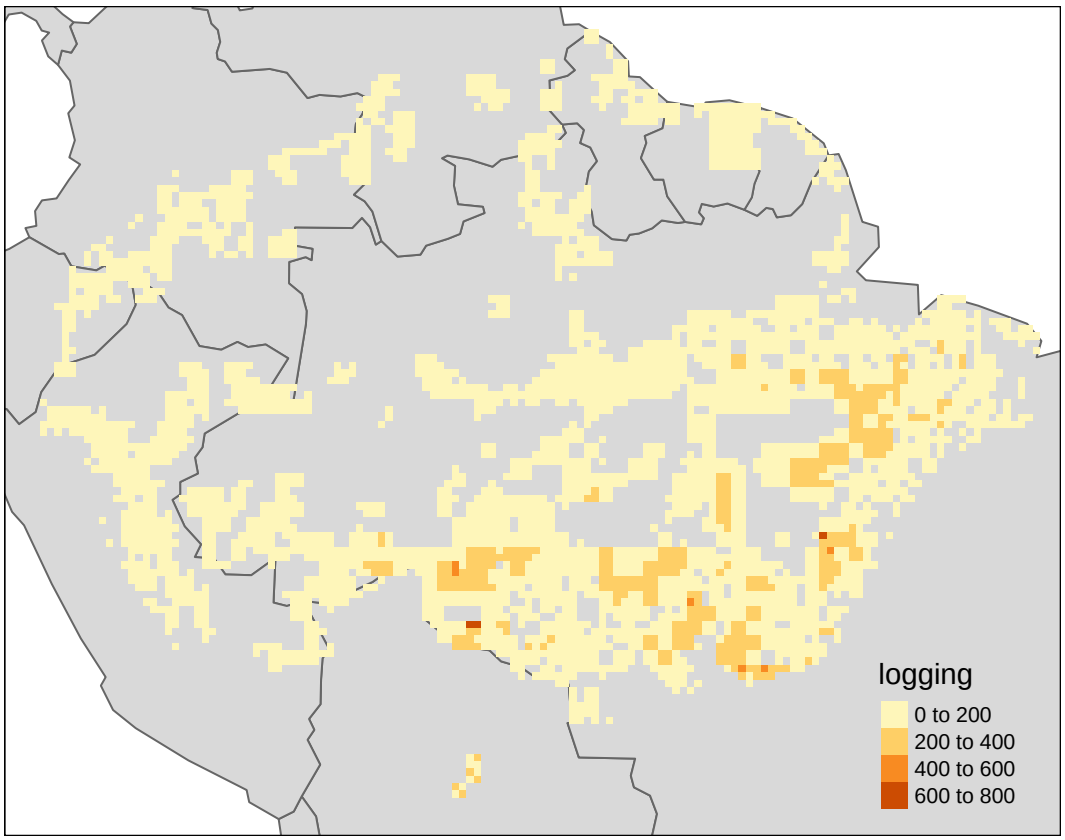

```
drought[drought == 0] <- NA
tm_shape(World,bbox = stars::st_as_stars(drought))+tm_polygons() +
  tm_shape(drought)+tm_raster(n=4)
```




```
edge[edge == 0] <- NA
tm_shape(World,bbox = stars::st_as_stars(edge))+tm_polygons() +
  tm_shape(edge)+tm_raster(n=4)
```




```
logging[logging == 0] <- NA
tm_shape(World,bbox = stars::st_as_stars(logging))+tm_polygons() +
  tm_shape(logging)+tm_raster(n=4)
```


logging
0 to 200
200 to 400
400 to 600
600 to 800