Week 4 Pre-Lecture Instructions

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Preparing for Week 4

Before we start working with the Week 4 materials, make sure your folder and project are correctly set up. This ensures that all file paths work with the `here()` package and that your code runs smoothly when knitted.

1. Create a Week 4 Folder

Inside your main project directory - **`R-ecology-workshop`** - create a new folder called **`Week 4`**.

Your directory should now look like this:

R-ecology-workshop/
|
____ Week 1/
|
____ Week 2/
|
____ Week 3/
|
____ Week 4/ <- *move downloaded files into here*

> *Important:* Move your downloaded files **directly into this Week 4 folder** - do **not** leave them inside a nested "Downloads" or "Week 4" subfolder.

2. Download the Week 4 Materials

All Week 4 files are available in the shared *Google Drive Week 4 folder*.

Download and save the following **five files** into your new **`R-ecology-workshop/Week 4/`** folder:

- `climate.csv`
- `forest_area.csv`
- `country_area.csv`
- `countries_continents.csv`
- `Week 4 Joining and Reshaping BLANK.Rmd` *(blank file to get you started)*

3. Open Your Project and File

1. In RStudio, open your main project: **`R-ecology-workshop.Rproj`**
2. In the *Files* pane, navigate to your new **Week 4** folder.

3. Open the file **`Week 4 Joining and Reshaping BLANK.Rmd`** - this is where we'll work today.

4. Load the Week 4 Datasets

Once each dataset has been placed inside your Week 4 folder, load them with:

```
library(tidyverse)
library(here)
library(janitor)

climate <- read_csv(here("Week 4/climate.csv")) %>% janitor::clean_names()
forest <- read_csv(here("Week 4/forest_area.csv")) %>% janitor::clean_names()
area <- read_csv(here("Week 4/country_area.csv")) %>% janitor::clean_names()
cont <- read_csv(here("Week 4/countries_continents.csv")) %>% janitor::clean_names()
```

About the datasets

- `climate.csv` - Annual mean temperature per country (long format).
- `forest_area.csv` - Forested area per country by year (wide format; columns are years).
- `country_area.csv` - Static total land area (km^2) per country (two columns).
- `countries_continents.csv` - Lookup table linking each country to its continent.

Once everything is loaded, we are ready to start joining the datasets together!

Important! Knitting to PDF

If you've had issues with knitting to PDF, try running the following two commands in your console:

```
install.packages("tinytex")
tinytex::install_tinytex()
```

. . . one line at a time. The second line (`install_tinytex()`) will take some time (approx. 30-60 minutes! depending on the internet connection), so be patient and let it finish installing.