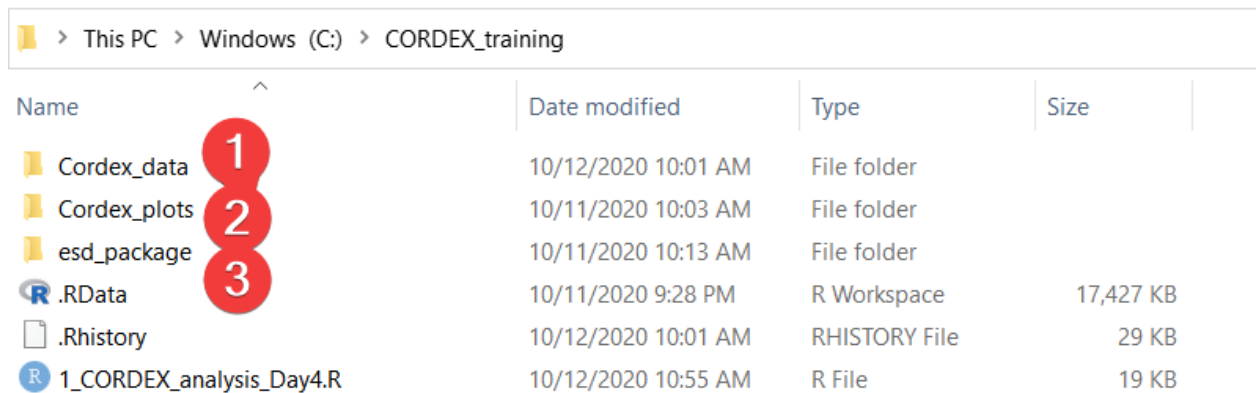


## Setting up R packages for CORDEX data analysis (Windows OS)

This document provides information on loading required packages to run CORDEX datasets and setting up the workspace directory.

1. Download the **CORDEX\_training.zip** from the given link  
<https://www.dropbox.com/t/HL5jIJu0UXlDiFj5>
2. Unzip the **CORDEX\_training.zip** and keep the folder in **C drive**:



Name	Date modified	Type	Size
Cordex_data	10/12/2020 10:01 AM	File folder	
Cordex_plots	10/11/2020 10:03 AM	File folder	
esd_package	10/11/2020 10:13 AM	File folder	
.RData	10/11/2020 9:28 PM	R Workspace	17,427 KB
.Rhistory	10/12/2020 10:01 AM	RHISTORY File	29 KB
1_CORDEX_analysis_Day4.R	10/12/2020 10:55 AM	R File	19 KB

1. **Cordex\_data**: CORDEX data is here
2. **Cordex\_plots**: All the output plots are here
3. **esd\_package**: This package to be installed locally

Open >> **1\_CORDEX\_analysis\_Day4.R** in RStudio. You will see the following window:

```
6
7 #remove all previous variables in the R environment
8 rm(list=ls())
9
10 install.packages("devtools")
11 library(devtools)
12
13 #packages to be installed
14 install.packages(c("Kendall","trend","zyp"), dependencies=T)
15 install_local("C:\\CORDEX_training\\esd_package\\esd-master.zip")
16
17
18 #packages to be loaded
19 library(esd)
20 library(Kendall)
21 library(trend)
22 library(zyp)
```

1. Install the package devtools (line 11, select the line>Run (shortcut: select the line and Ctrl+Enter)
2. Load the package devtools (line 12, select the line>Run)
3. Install the packages: Kendall, Trend, zyp (line 14)
4. Package 'esd' needs to be installed locally. Make sure the esd\_package is in **C:/CORDEX\_training folder/esd\_package** (or give the location where it is located) (line 15)
5. After the package is installed, you will need to load the package (line 19-22)

## Cleaning up and setting the input and output directory

```

6
7 #remove all previous variables in the R environment
8 rm(list=ls())
9
10 #install.packages("devtools")
11 library(devtools)
12
13 #packages to be installed
14 #install.packages(c("Kendall", "trend", "zyp"), dependencies=T)
15 #install_local("C:\\CORDEX_training\\esd_package\\esd-master.zip")
16
17
18 #packages to be loaded
19 library(esd)
20 library(Kendall)
21 library(trend)
22 library(zyp)

```

1. Once the package is installed in R, you can comment out the line by putting '#' before the lines (eg. line 10, 13 and 14). The packages do not need to be installed second time in the same computer, but the libraries need to be loaded every time you run the script.

```

22
23 #Setting Start
24 indir <- "C:\\CORDEX_training\\Cordex_data\\"
25 outdir <- "C:\\CORDEX_training\\Cordex_plots\\Day4\\"
26

```

1. Your CORDEX data need to be in the *indir* (input directory. Eg. C:\\CORDEX\_training\\Cordex\_data\\") in our case
2. All of your map lots and tables will be stored in *outdir* (output directory. Eg. C:\\CORDEX\_training\\Cordex\_plots\\Day4\\) in our case

----End of the documentation----