

R Notebook

```
getwd()
```

```
## [1] "/home/audi/practical1_multivariate_data_analysis/2nda_parte"
```

```
countries<-read.table("./ecosystems.txt",sep="\t",header=T)
# countries<-read.table("./2nda_parte/FANGA_TAUFA_del_tab.txt",sep="\t",header=T)
str(countries)
```

```
## 'data.frame': 57 obs. of 7 variables:
## $ Colif_total : int 136 208 247 249 185 166 204 215 114 188 ...
## $ Colif_fecal : int 123 204 231 235 179 154 196 207 119 187 ...
## $ Estrep_fecal : int 80 106 108 110 101 95 113 109 85 101 ...
## $ Cont_mineral : int 49 71 51 25 33 44 40 30 24 37 ...
## $ Conductivitat: int 21 17 22 30 21 18 18 14 22 21 ...
## $ Solids_susp : int 883 1071 1082 881 971 1057 902 997 717 880 ...
## $ DQO_M : int 660 738 744 720 702 726 714 726 660 702 ...
```

```
countries2 <- scale(countries)
countries.D1 = dist(countries2, method = "euclid")
```

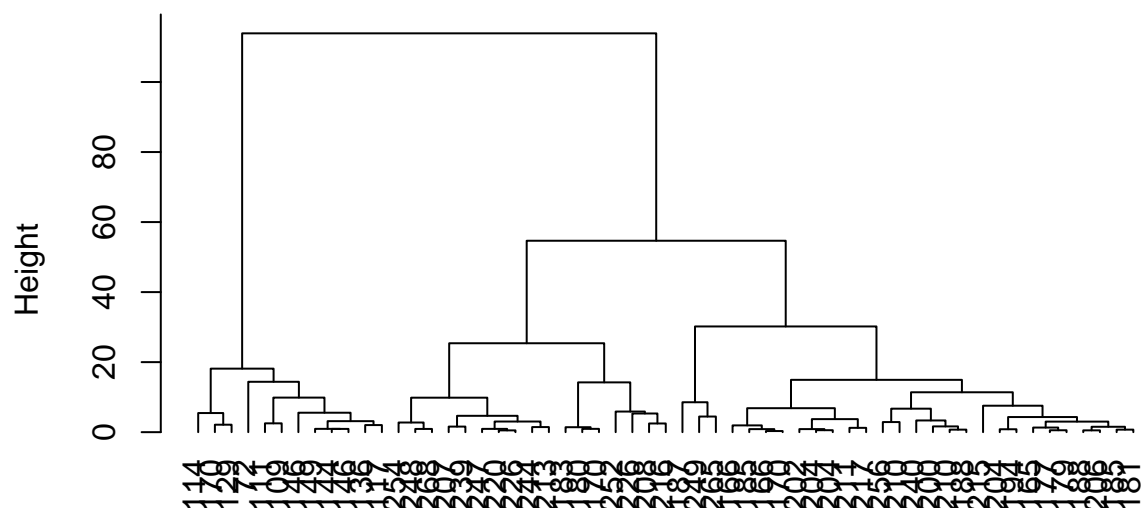
```
#clustering
require(cluster)
```

```
## Loading required package: cluster
```

```
clusterW<-hclust(countries.D1^2, method="ward.D2")
```

```
#Agglomerative clustering, UPGMA
plot(clusterW, hang=-1, labels = countries[,1])
```

Cluster Dendrogram



countries.D1^2
hclust (*, "ward.D2")