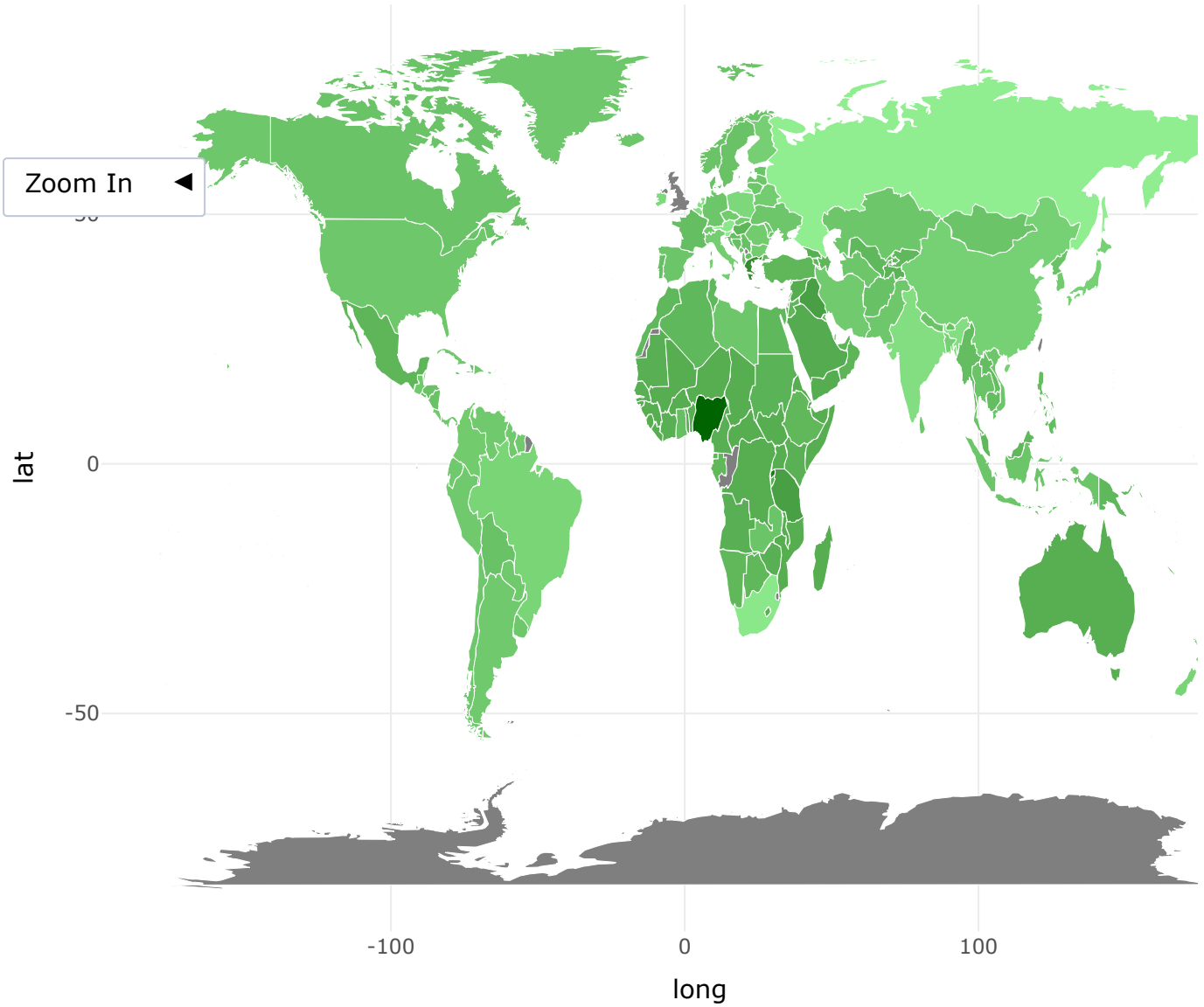


Dataset

```
                waste_type total_waste_generated_tonne
1 Construction & Demolition                    1624000
2            Ferrous Metals                    1269000
3           Paper/Cardboard                    1054000
4                  Plastics                     949000
5                      Food                     763000
6              Wood/Timber                      521000
  total_waste_recycled_tonne year total_waste_not_recycled_tonne recycling_rate
1                    1618000 2018                              6           1.00
2                     126000 2018                           1143           0.10
3                     586000 2018                            468           0.56
4                      41000 2018                            908           0.04
5                     126000 2018                            637           0.17
6                     428000 2018                             93           0.82
  wasting_rate
1         0.00
2         0.90
3         0.44
4         0.96
5         0.83
6         0.18
```

Not Found

#intend to add shiny to allow user to chose the material and then the graph x axis will be the year and y axis will be waste generated, waste recycled and waste not recycled. -> to be able to see the number when u hover over it.

#another shiny interaction to see the recycling rate for each material. x-axis: year; y axis: rate (interactive scatter plot)-> to be able to see the number when u hover over it.

#Column

Chart B

```
# A tibble: 15 × 3
   Material                       Total Waste Generate…¹ Total Waste Recycled…²
   <chr>                                           <dbl>                  <dbl>
 1 Overall                                    131824000               75119000
 2 Paper/Cardboard                             23530000               11504000
 3 Ferrous Metals                              22414000               20472000
 4 Construction & Demolition                   22245000               21970000
 5 Plastics                                    15797000                1280000
 6 Food                                        13681000                1836000
 7 Wood/Timber                                  6608000                4440000
 8 Horticultural                                5521000                3197000
 9 Others (stones, ceramic, rubbe…              5426000                 197000
10 Used Slag                                    5003000                4786000
11 Textile/Leather                              2854000                 199000
12 Non-Ferrous Metals                           2094000                1865000
13 Glass                                        1413000                 236000
14 Used slag                                    1366000                1347000
15 Scrap Tyres                                   502000                 431000
# ℹ abbreviated names: ¹`Total Waste Generated (tonnes)`,
#   ²`Total Waste Recycled (tonnes)`
```

```
# A tibble: 15 × 3
   waste_type                     total_waste_generated total_waste_recycled
   <chr>                                          <dbl>                <dbl>
 1 Overall                                    131824000             75119000
 2 Paper/Cardboard                             23530000             11504000
 3 Ferrous Metals                              22414000             20472000
 4 Construction & Demolition                   22245000             21970000
 5 Plastics                                    15797000              1280000
 6 Food                                        13681000              1836000
 7 Wood/Timber                                  6608000              4440000
 8 Horticultural                                5521000              3197000
 9 Others (stones, ceramic, rubber, …           5426000               197000
10 Used Slag                                    5003000              4786000
11 Textile/Leather                              2854000               199000
12 Non-Ferrous Metals                           2094000              1865000
13 Glass                                        1413000               236000
14 Used slag                                    1366000              1347000
15 Scrap Tyres                                   502000               431000
```

Chart C

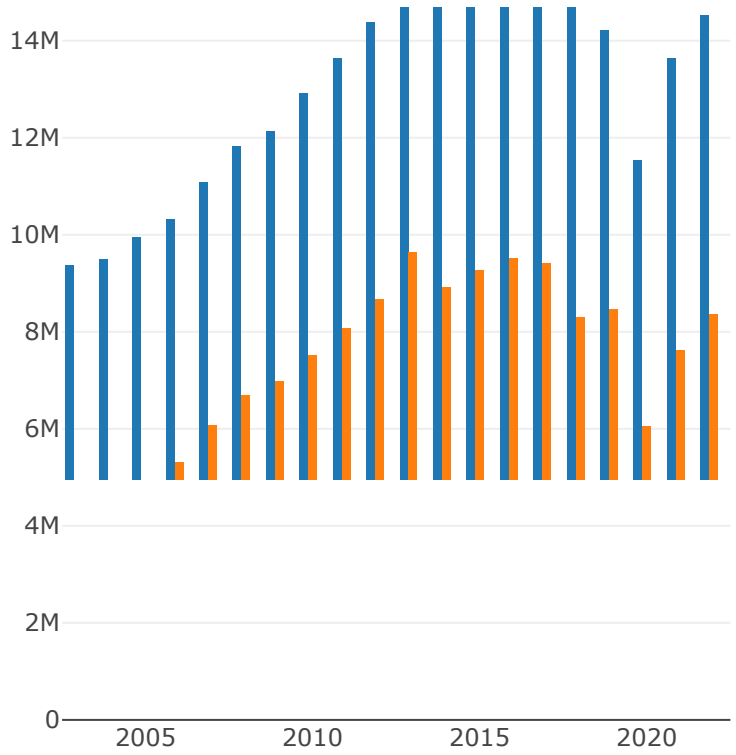
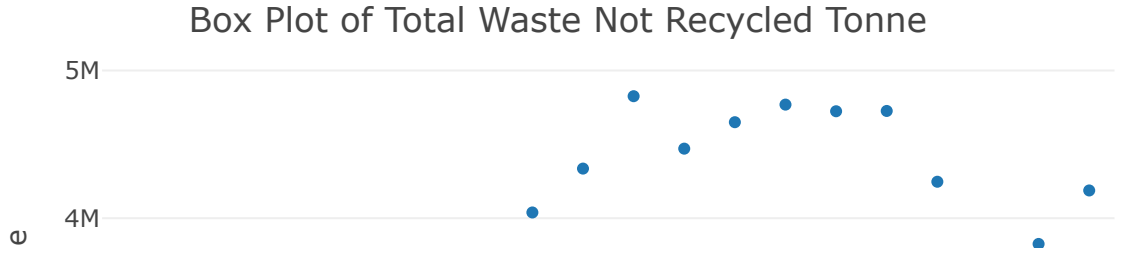
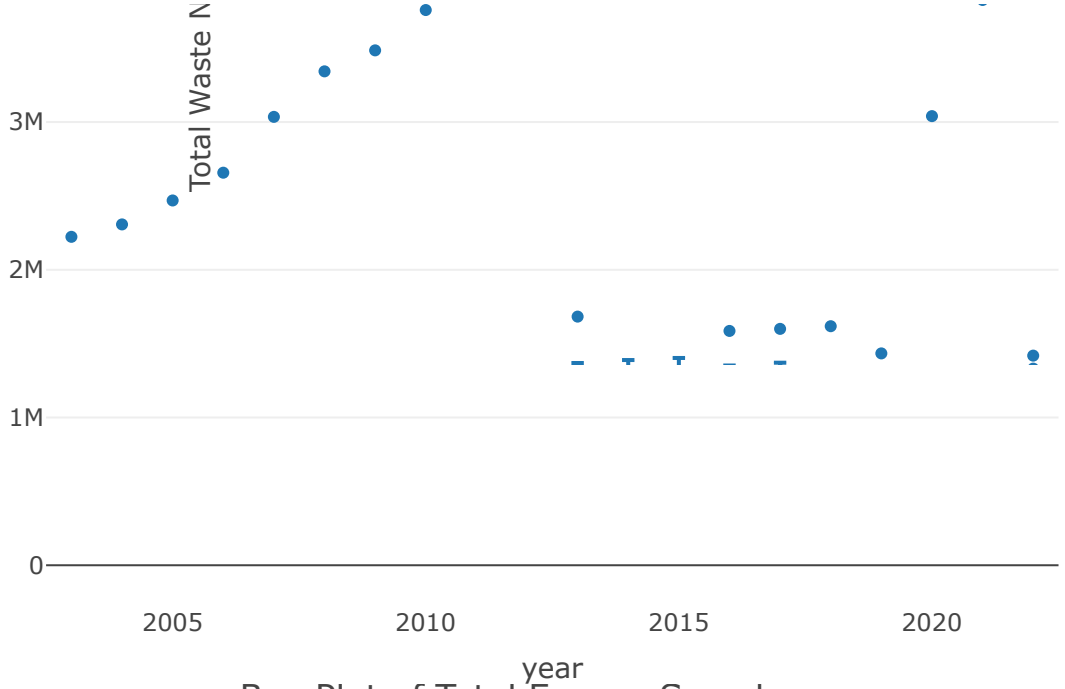
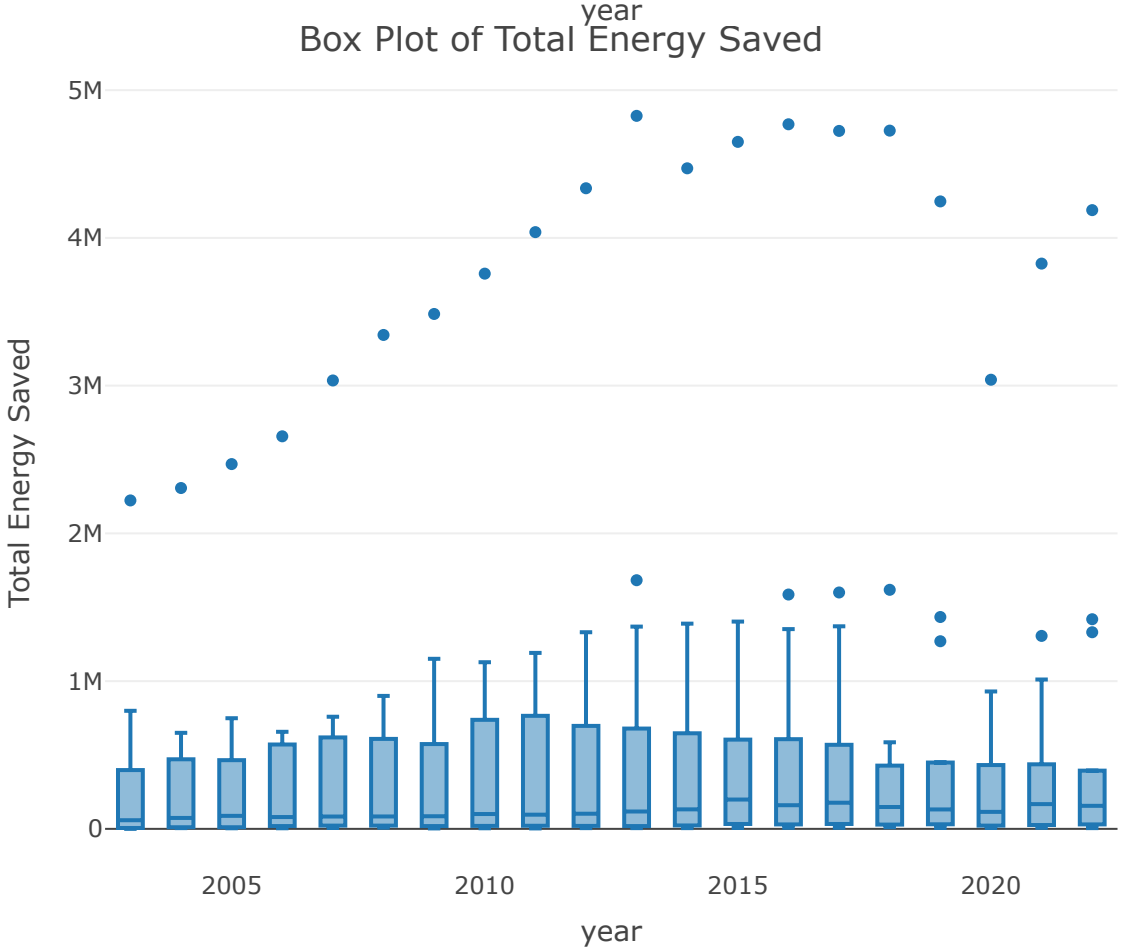


Chart D

	waste_type	total_waste_generated_tonne	total_waste_recycled_tonne	year	total_waste_not_recycled_tonne	energy_saved	crude_oil_saved
1	Construction & Demolition	1624000	1618000	2018	6	34644	96.00
2	Construction & Demolition	1440000	1434000	2019	6	252	0.72
3	Construction & Demolition	825000	822000	2020	3	1926	5.40
4	Construction & Demolition	1013000	1011000	2021	2	28000	80.00
5	Construction & Demolition	1424000	1419000	2022	5	20500	55.00
6	Construction & Demolition	1595000	1586000	2016	9	3600	9.90







========== ### Chart E

#```{r} #scatter plot graph fig <- plot_ly(data = total_data, x = ~year, y = ~energy_saved, size = ~total_waste_generate_tonne, color = ~material, sizes = c(10, 60), type = “scatter”, mode = “markers”)

fig