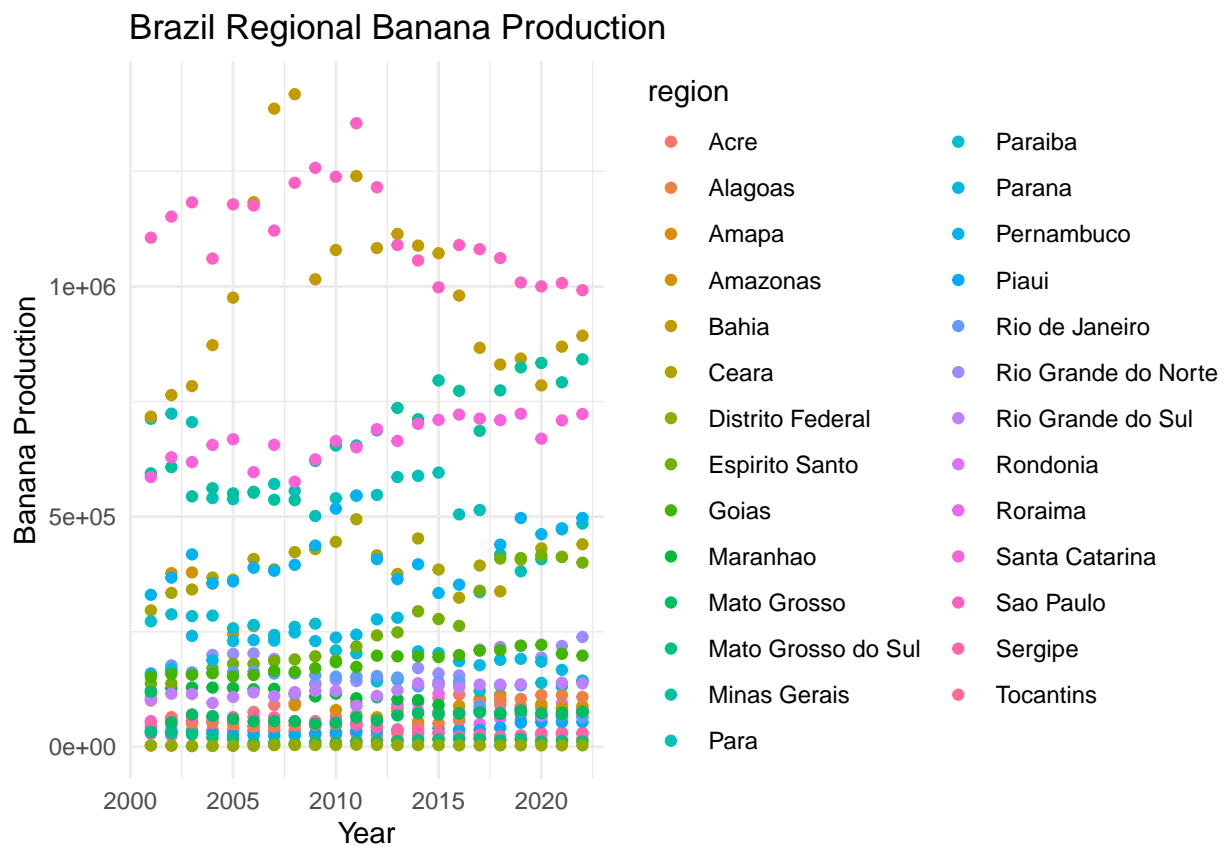


Banana Graphs

2025-11-08

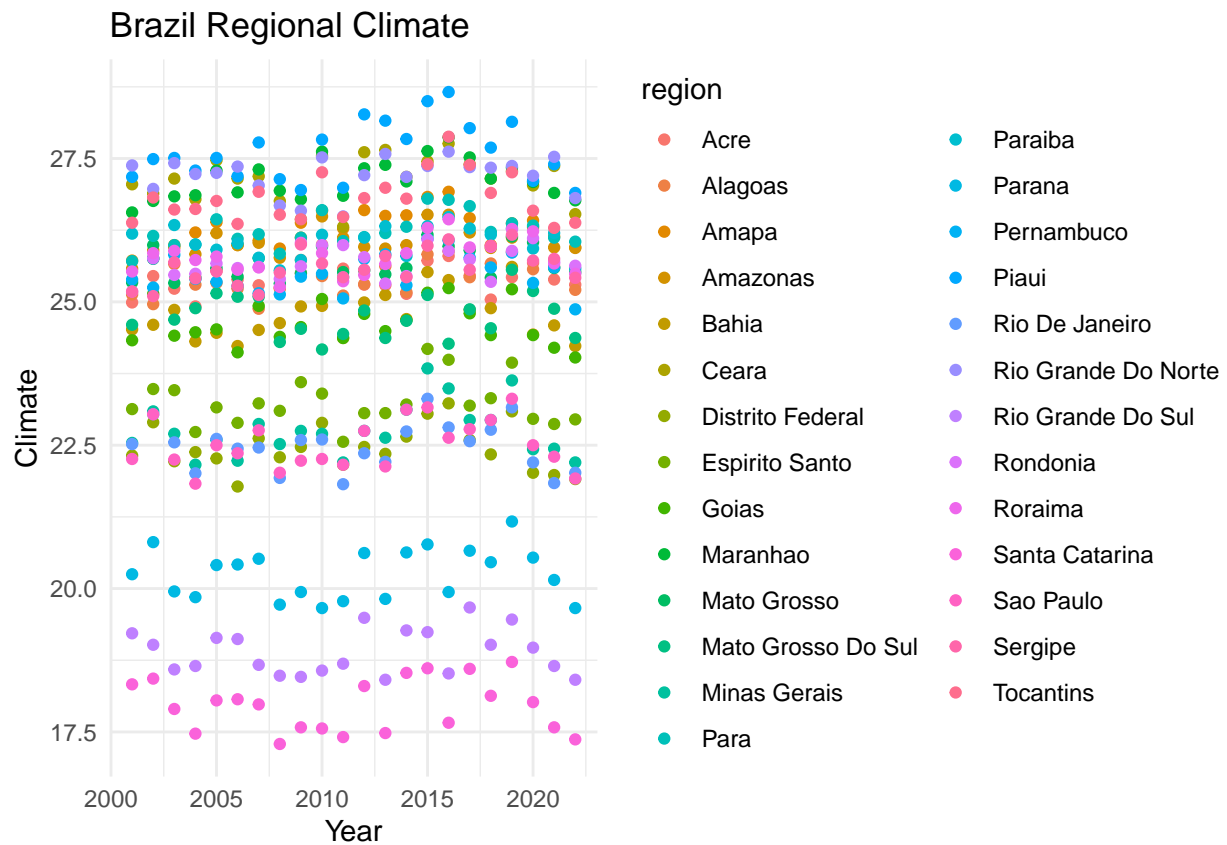
Brazil Regional Banana Production - Initial View of Banana Dataset

```
ggplot(brazilBAN, aes(x = year, y = prod, color = region)) +  
  geom_point() +  
  labs(title = "Brazil Regional Banana Production",  
        x = "Year",  
        y = "Banana Production") +  
  theme_minimal()
```



Brazil Regional Climate - Initial View of Climate Dataset

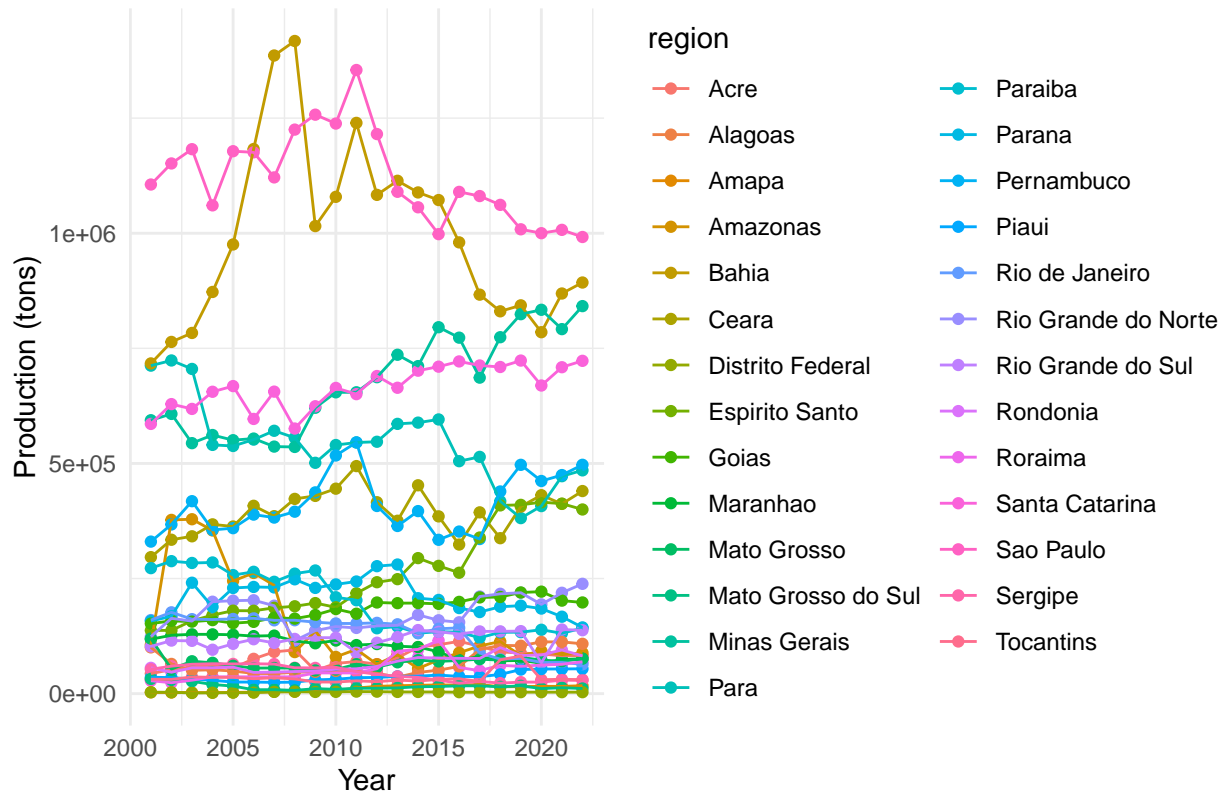
```
ggplot(brazilCLI, aes(x = year, y = climate_Mean, color = region)) +  
  geom_point() +  
  labs(title = "Brazil Regional Climate",  
        x = "Year",  
        y = "Climate") +  
  theme_minimal()
```



Brazil Regional Banana Production (2001-2022)

```
ggplot(brazilALL, aes(year, prod, color = region)) +
  geom_point() +
  geom_line() +
  labs(
    title = "Brazil Regional Banana Production (2001-2022)",
    x = "Year",
    y = "Production (tons)"
  ) +
  theme_minimal()
```

Brazil Regional Banana Production (2001–2022)



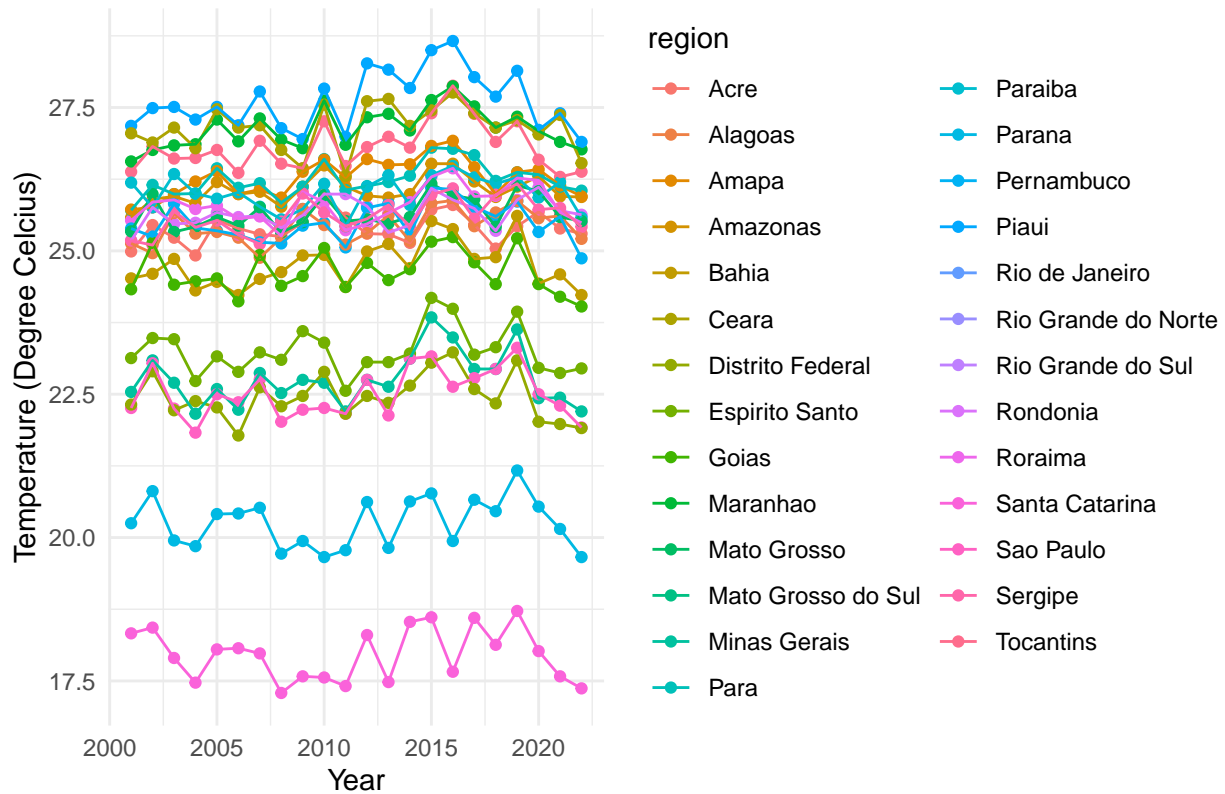
Mean Annual Temperature by Region

```
ggplot(brazilALL, aes(year, climate_Mean, color = region)) +
  geom_point() +
  geom_line() +
  labs(
    title = "Mean Annual Temperature by Region",
    x = "Year",
    y = "Temperature (Degree Celcius)"
  ) +
  theme_minimal()
```

```
## Warning: Removed 88 rows containing missing values or values outside the scale range
## (`geom_point()`).
```

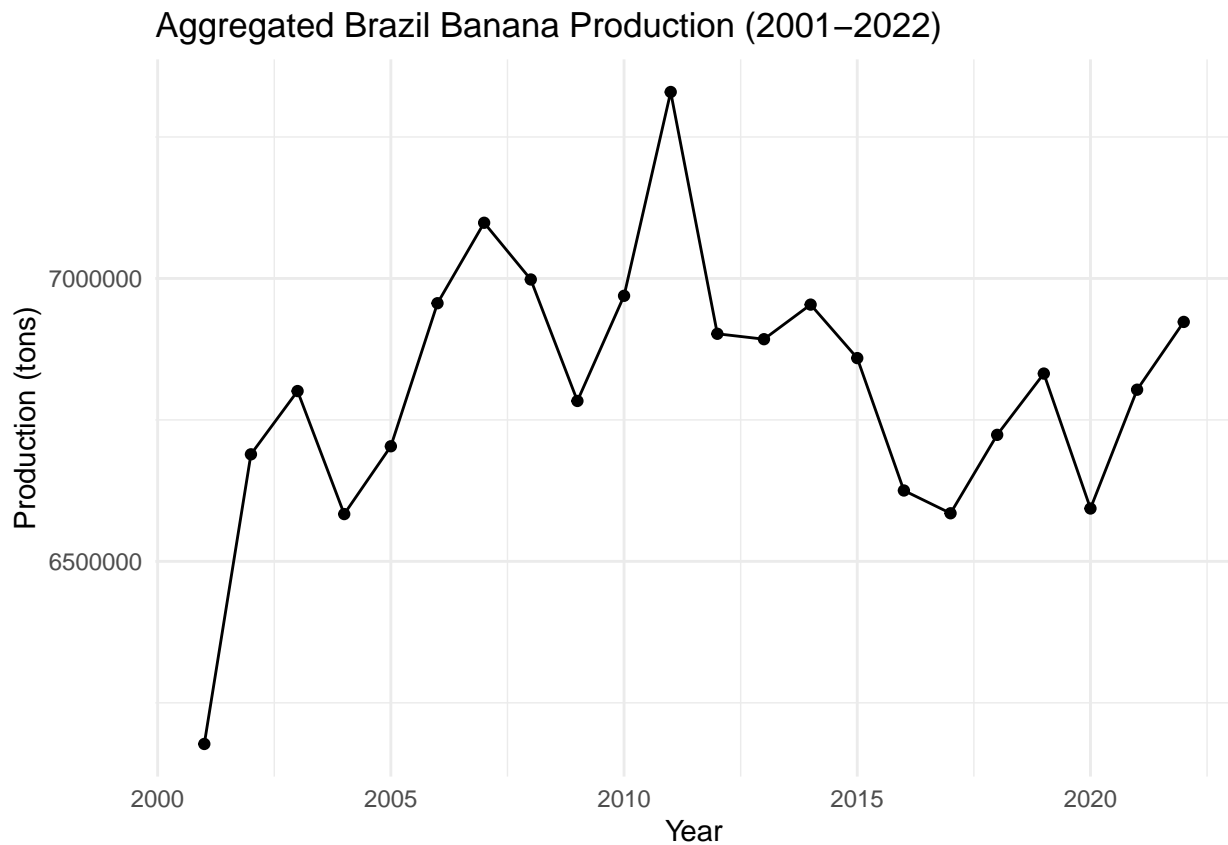
```
## Warning: Removed 88 rows containing missing values or values outside the scale range
## (`geom_line()`).
```

Mean Annual Temperature by Region



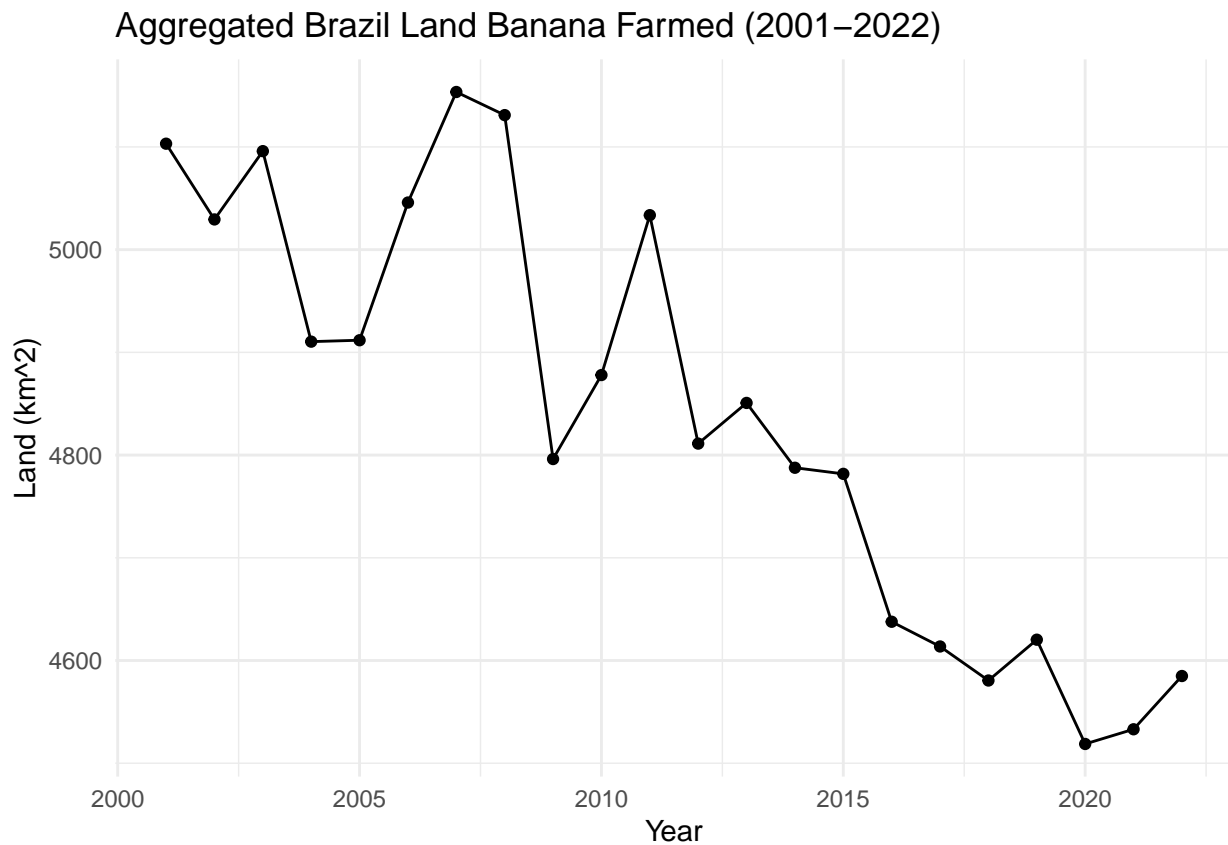
Aggregated Brazil Banana Production (2001-2022)

```
ggplot(brazilTOTAL, aes(year, total_prod)) +
  geom_point() +
  geom_line() +
  labs(
    title = "Aggregated Brazil Banana Production (2001-2022)",
    x = "Year",
    y = "Production (tons)"
  ) +
  theme_minimal()
```



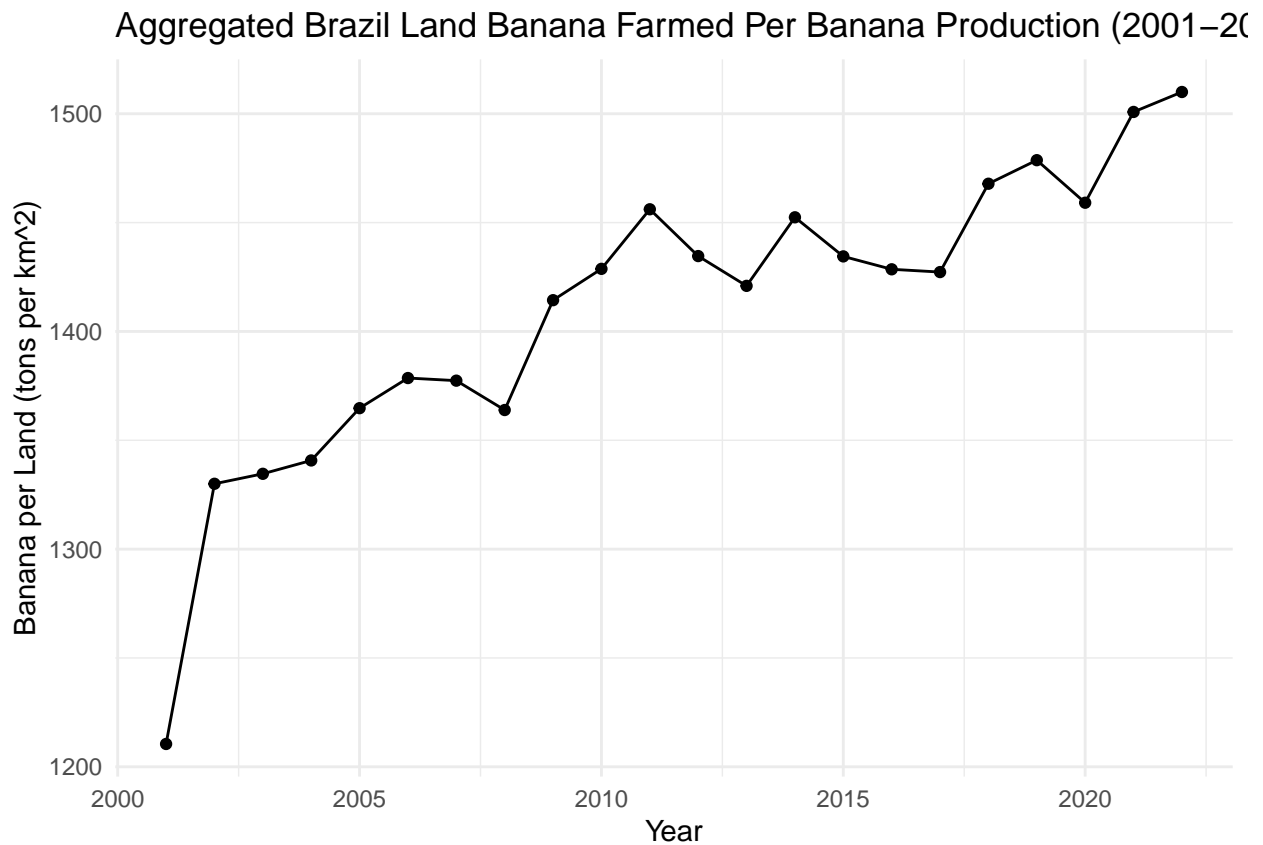
Aggregated Brazil Land Banana Farmed (2001-2022)

```
ggplot(brazilTOTAL, aes(year, total_areaKM)) +  
  geom_point() +  
  geom_line() +  
  labs(  
    title = "Aggregated Brazil Land Banana Farmed (2001-2022)",  
    x = "Year",  
    y = "Land (km^2)"  
  ) +  
  theme_minimal()
```



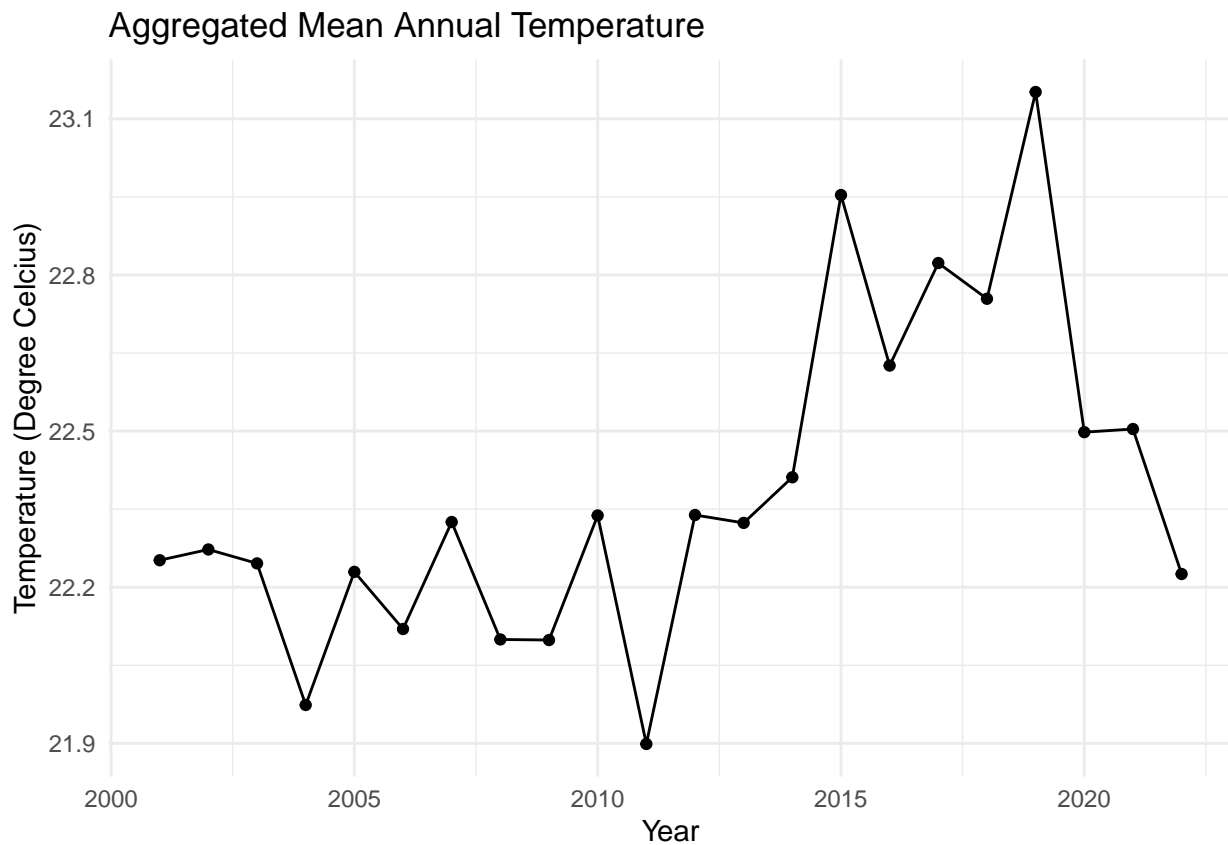
Aggregated Brazil Land Banana Farmed Per Banana Production (2001-2022)

```
ggplot(brazilTOTAL, aes(year, total_producerareaKM)) +
  geom_point() +
  geom_line() +
  labs(
    title = "Aggregated Brazil Land Banana Farmed Per Banana Production (2001-2022)",
    x = "Year",
    y = "Banana per Land (tons per km^2)"
  ) +
  theme_minimal()
```



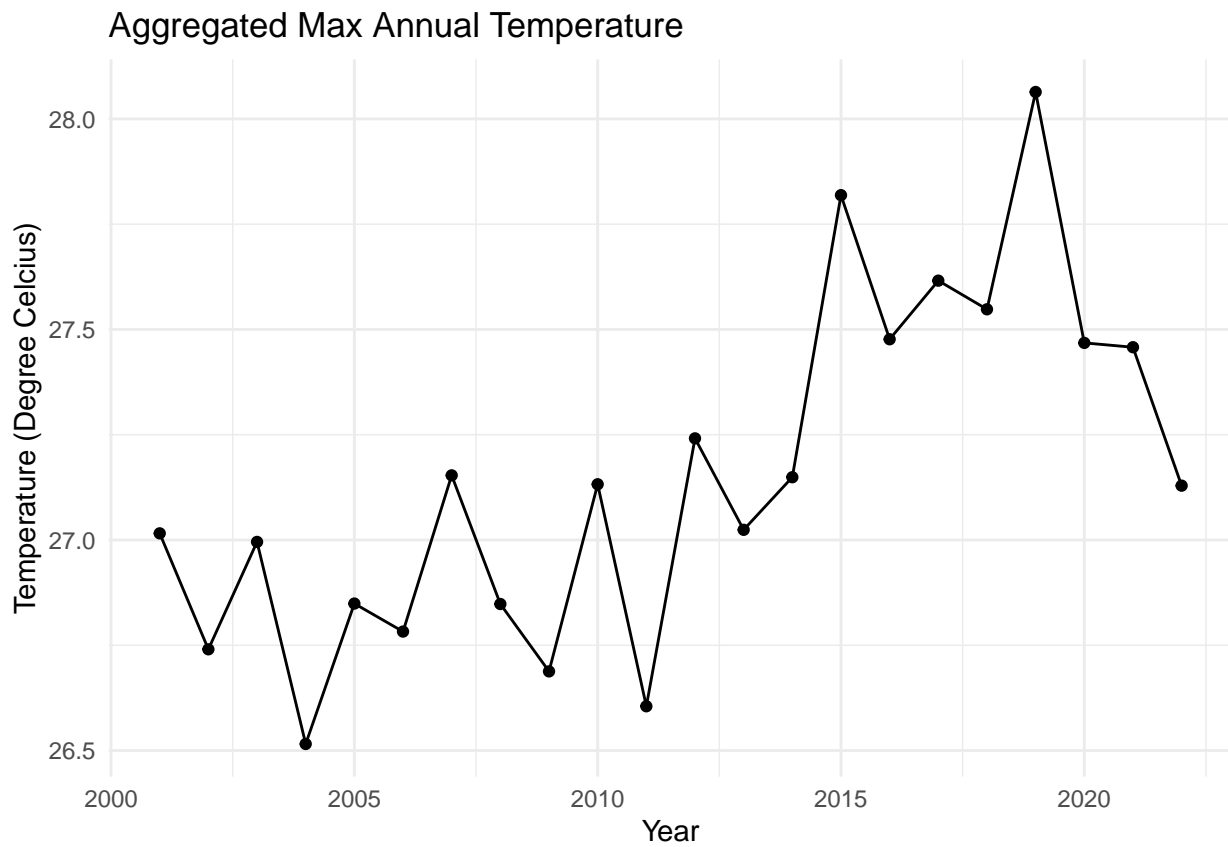
Aggregated Mean Annual Temperature

```
ggplot(brazilTOTAL, aes(year, total_mean)) +  
  geom_point() +  
  geom_line() +  
  labs(  
    title = "Aggregated Mean Annual Temperature",  
    x = "Year",  
    y = "Temperature (Degree Celcius)"  
  ) +  
  theme_minimal()
```



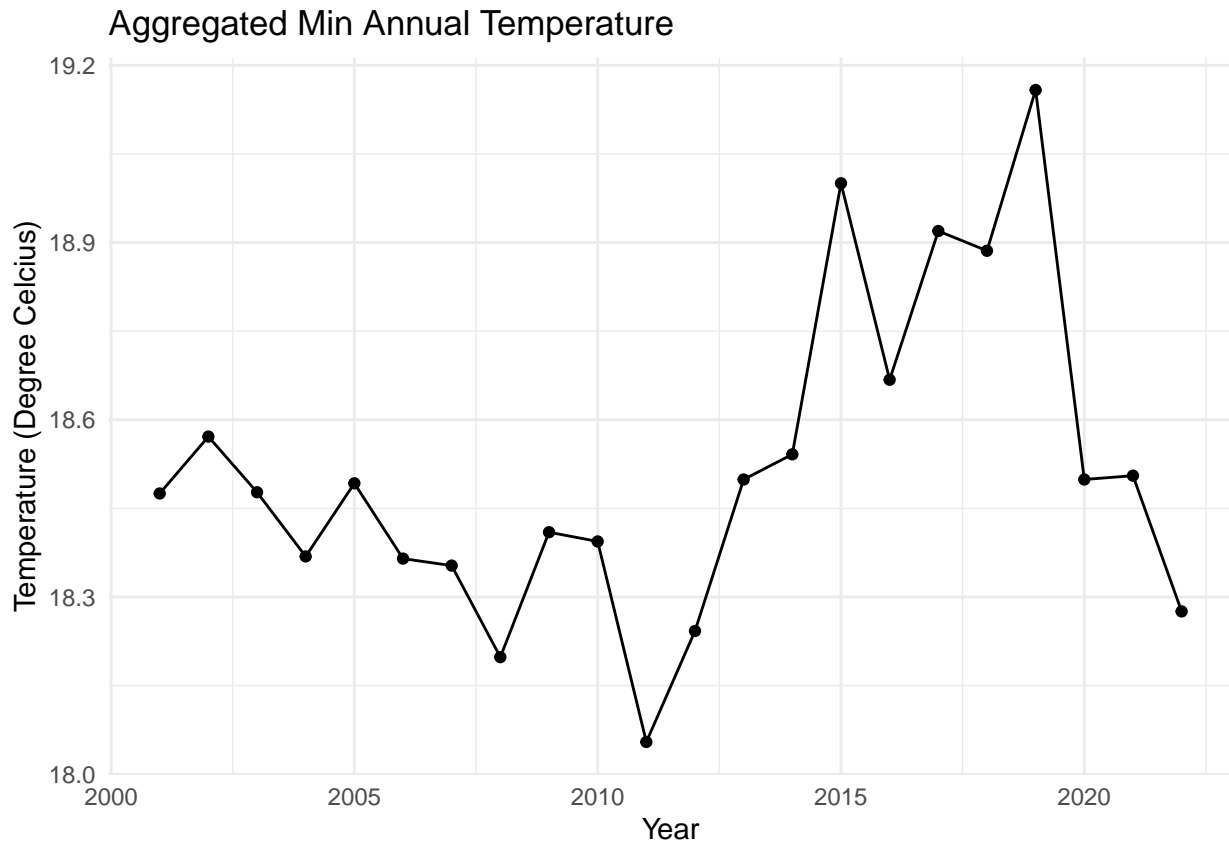
Aggregated Max Annual Temperature

```
ggplot(brazilTOTAL, aes(year, total_max)) +  
  geom_point() +  
  geom_line() +  
  labs(  
    title = "Aggregated Max Annual Temperature",  
    x = "Year",  
    y = "Temperature (Degree Celcius)"  
  ) +  
  theme_minimal()
```

Aggregated Min Annual Temperature

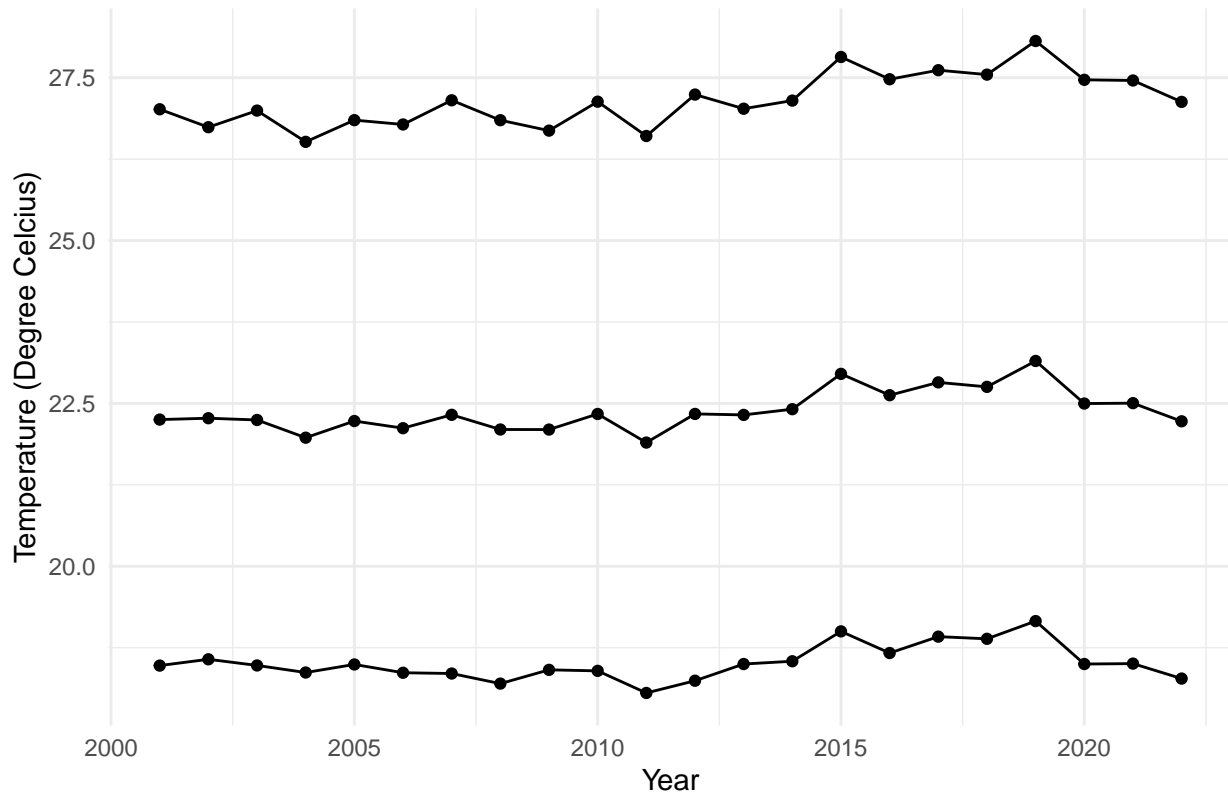
```
ggplot(brazilTOTAL, aes(year, total_min)) +  
  geom_point() +  
  geom_line() +  
  labs(  
    title = "Aggregated Min Annual Temperature",  
    x = "Year",  
    y = "Temperature (Degree Celcius)"  
  ) +  
  theme_minimal()
```



Aggregated Brazil Temperature Trends (2001-2022)

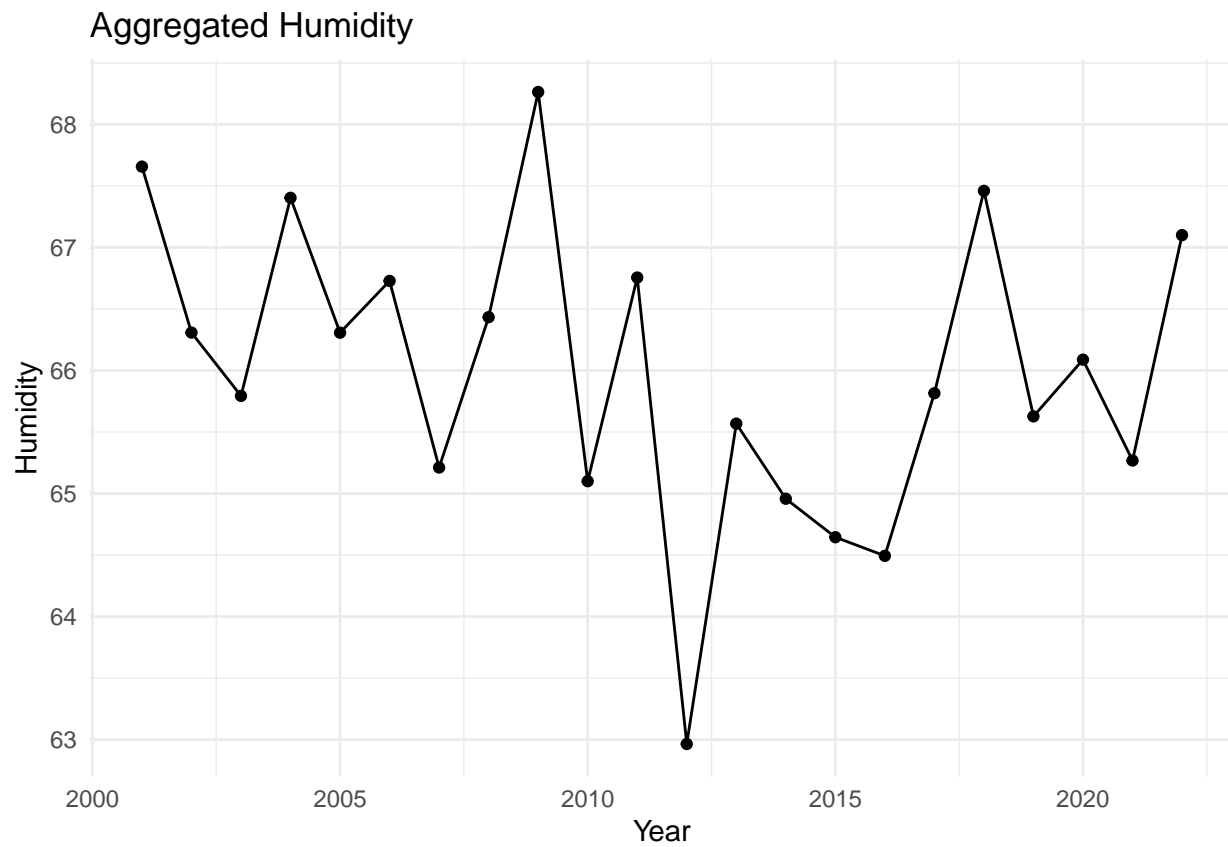
```
ggplot(brazilTOTAL) +
  geom_point(aes(year, total_mean)) +
  geom_line(aes(year, total_mean)) +
  geom_point(aes(year, total_min)) +
  geom_line(aes(year, total_min)) +
  geom_point(aes(year, total_max)) +
  geom_line(aes(year, total_max)) +
  labs(
    title = "Aggregated Brazil Temperature Trends (2001-2022)",
    x = "Year",
    y = "Temperature (Degree Celcius)"
  ) +
  theme_minimal()
```

Aggregated Brazil Temperature Trends (2001–2022)



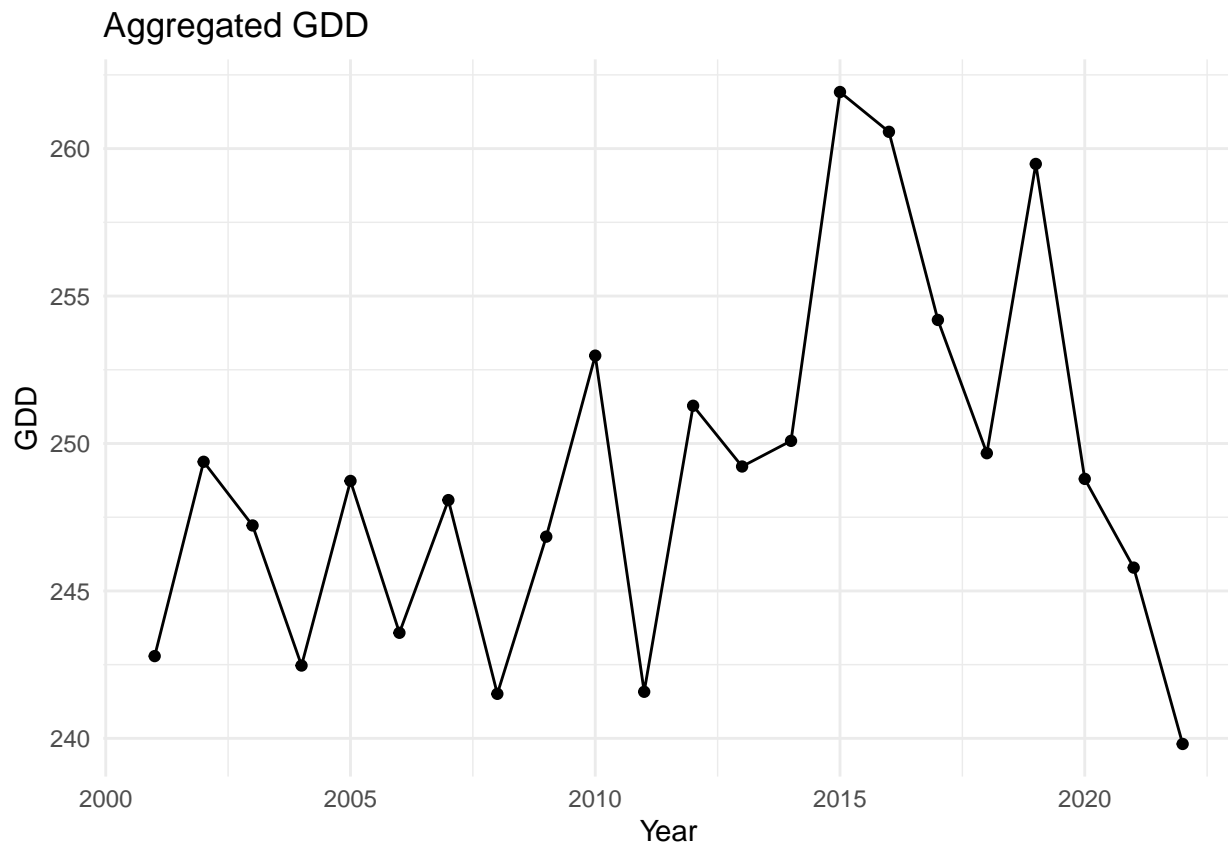
Aggregated Humidity

```
ggplot(brazilTOTAL, aes(year, total_humidity)) +
  geom_point() +
  geom_line() +
  labs(
    title = "Aggregated Humidity",
    x = "Year",
    y = "Humidity"
  ) +
  theme_minimal()
```



Aggregated GDD

```
ggplot(brazilTOTAL, aes(year, total_GDD)) +  
  geom_point() +  
  geom_line() +  
  labs(  
    title = "Aggregated GDD",  
    x = "Year",  
    y = "GDD"  
  ) +  
  theme_minimal()
```



Aggregated Annual Temperature Range

```
ggplot(brazilTOTAL, aes(year, total_range)) +  
  geom_point() +  
  geom_line() +  
  labs(  
    title = "Aggregated Annual Temperature Range",  
    x = "Year",  
    y = "Temperature Range (Degree Celcius)"  
  ) +  
  theme_minimal()
```

