Report: Carbon Dioxide Emissions in East Asia

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Abstract

East Asia is one of the most significant contributors to global carbon dioxide emissions, accounting for almost 40% of the world's total emissions. This region has experienced rapid economic growth and industrialization over the past few decades, leading to an increase in energy consumption and greenhouse gas emissions. This paper examines the trends and drivers of carbon dioxide emissions in East Asia, including China, Japan, South Korea, and Taiwan, from 1990 to 2019.

Using data from the World Bank Agency and other sources, we find that carbon dioxide emissions in East Asia have more than doubled since 1990, reaching over 13 billion metric tons in 2020. China is by far the largest emitter in the region, accounting for more than 75% of East Asia's total emissions.

The growth in carbon dioxide emissions in East Asia can be attributed to several factors, including the region's heavy reliance on coal for energy generation, the expansion of energy-intensive industries, and the increasing demand for transportation. In recent years, some countries in East Asia have made significant efforts to reduce their carbon footprint by investing in renewable energy sources and implementing energy efficiency measures. However, much more needs to be done to address the challenge of climate change in the region.

This paper concludes with a discussion of the policy implications of the findings, economics growth, and calls for greater cooperation among East Asian countries to tackle the shared challenge of reducing carbon emissions and mitigating climate change.

Keyword : Carbon Capture, Carbon Dioxide, Economics, Economic Growth.

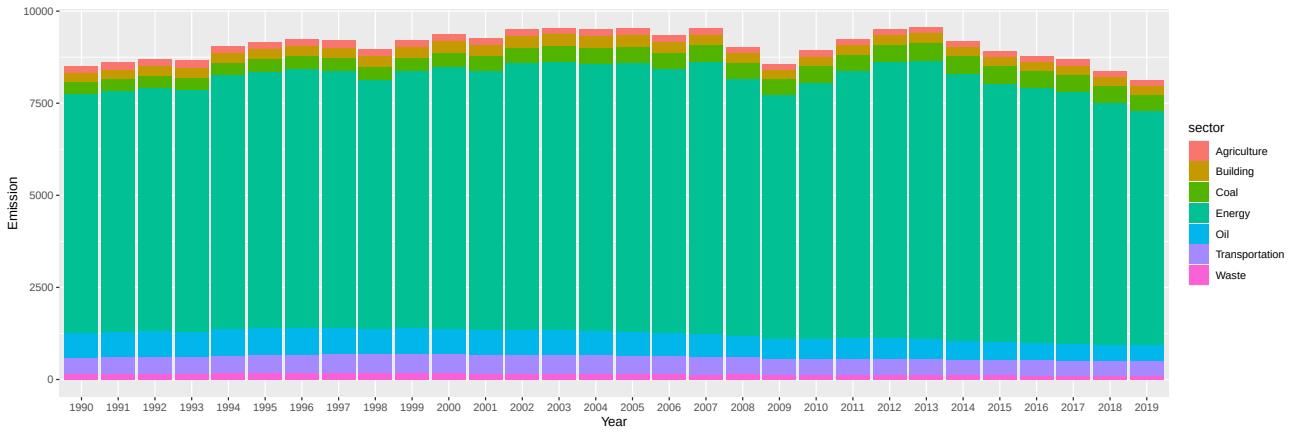


Figure 1: CO_2 emissions in Japan.

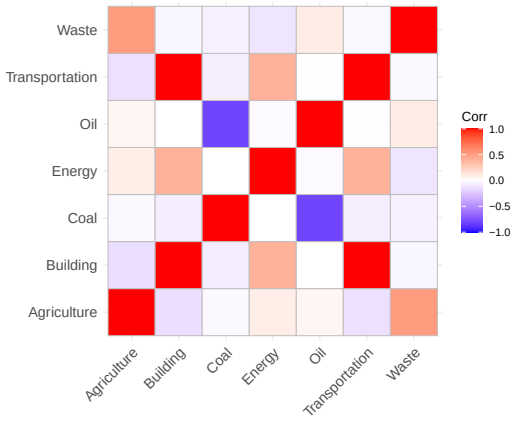


Figure 2: Correlation of CO_2 emissions between sectors in Japan.

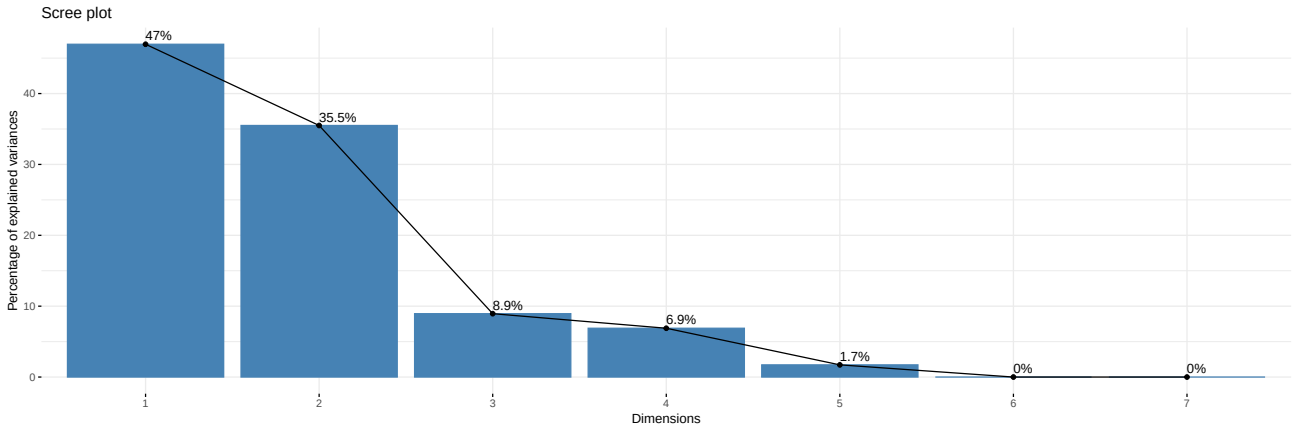


Figure 3: PCA eigen values of CO_2 emissions in Japan.

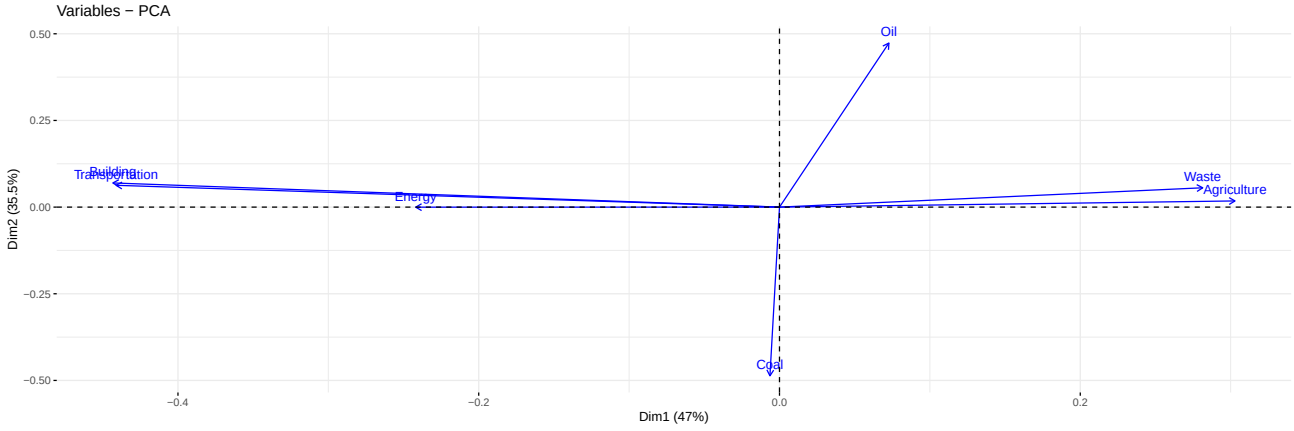


Figure 4: PCA vector correlation values of CO_2 emissions in Japan.

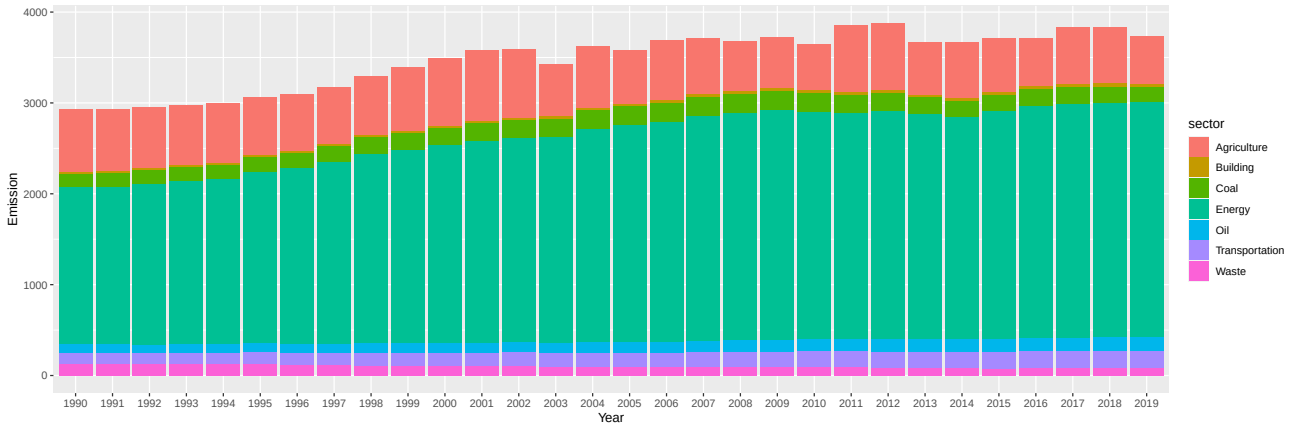


Figure 5: CO_2 emissions in Australia.

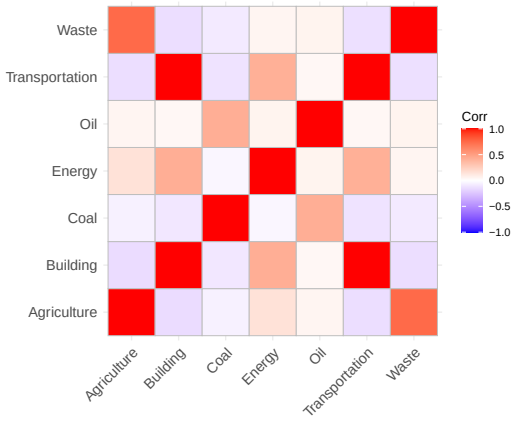


Figure 6: Correlation of CO_2 emissions between sectors in Australia.

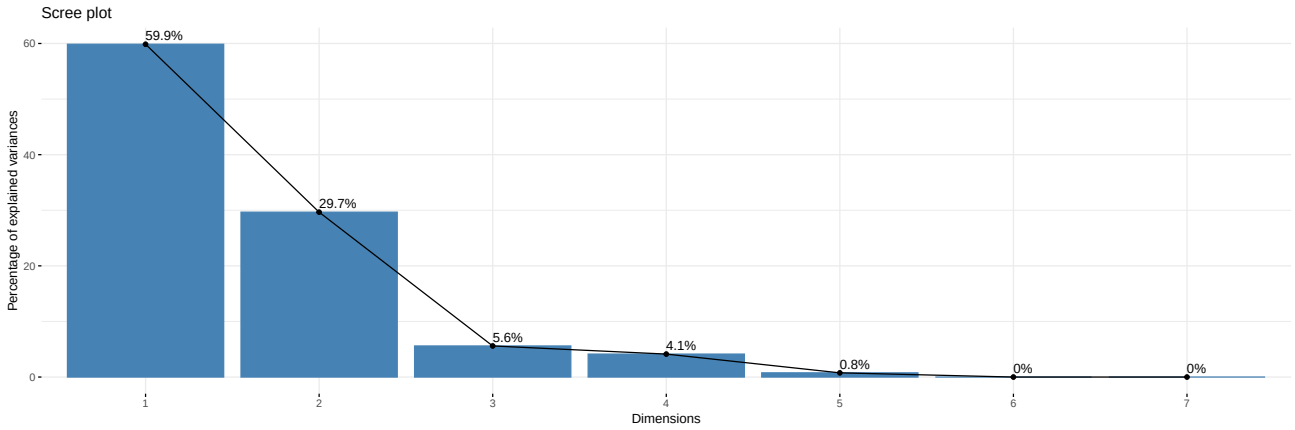


Figure 7: PCA eigen values of CO_2 emissions in Australia.

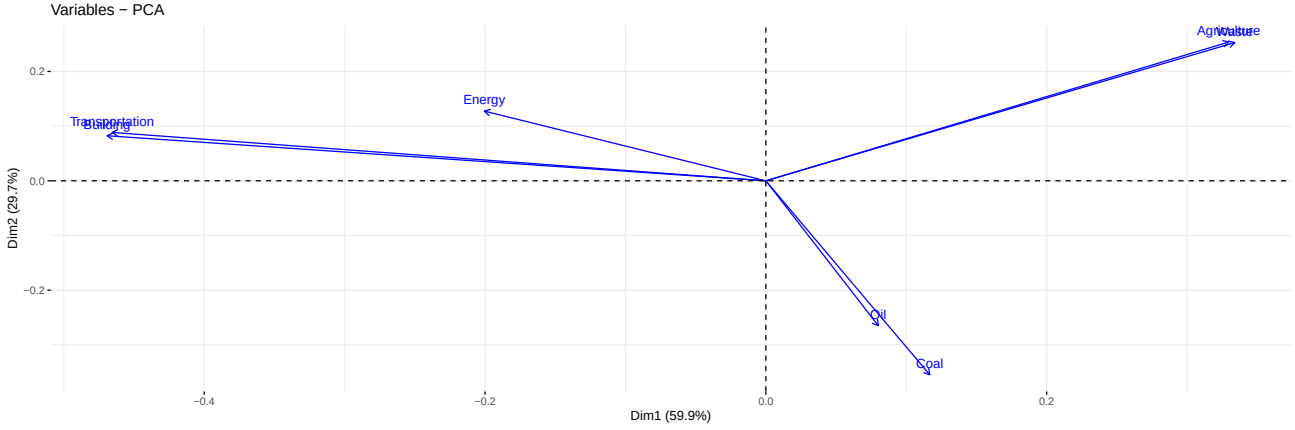


Figure 8: PCA vector correlation values of CO_2 emissions in Australia.

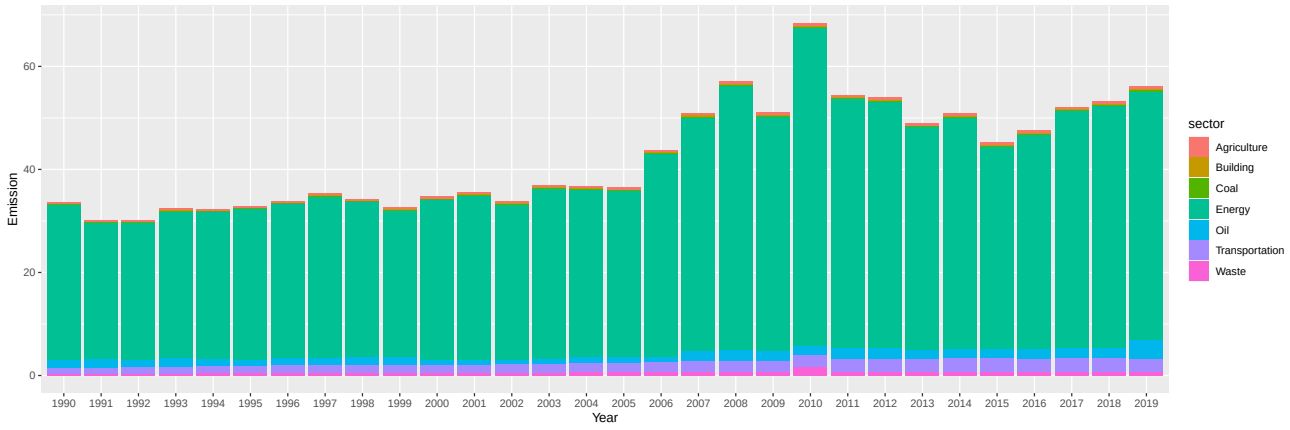


Figure 9: CO_2 emissions in Brunei.

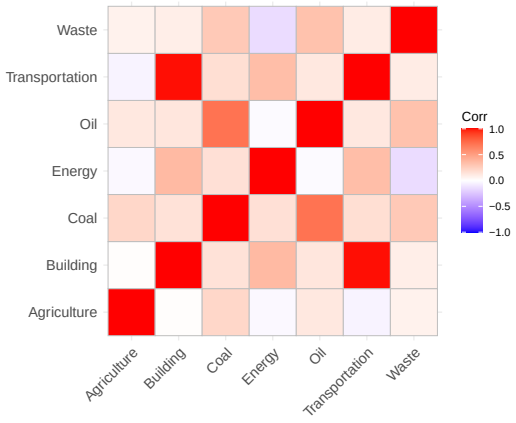


Figure 10: Correlation of CO_2 emissions between sectors in Brunei.

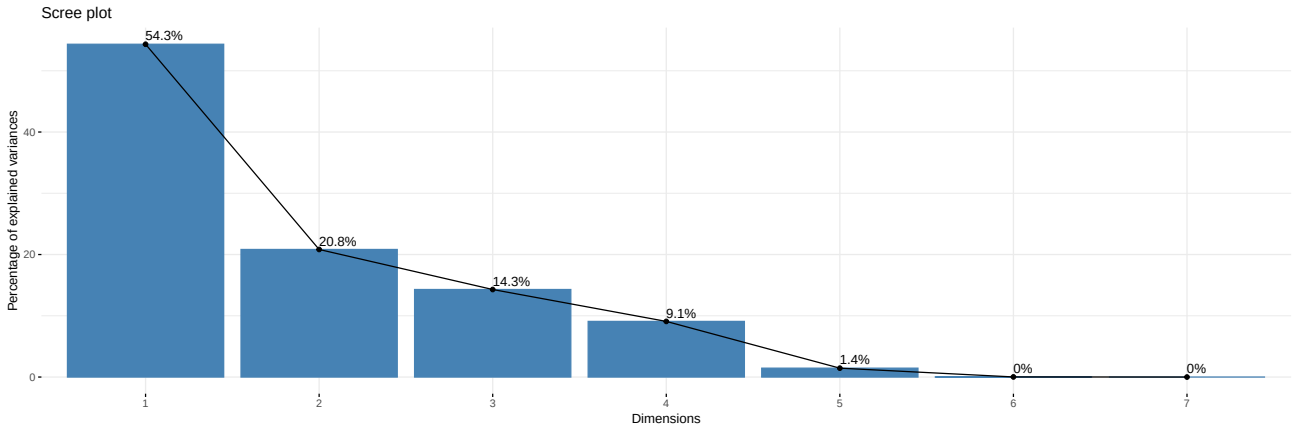


Figure 11: PCA eigen values of CO_2 emissions in Brunei.

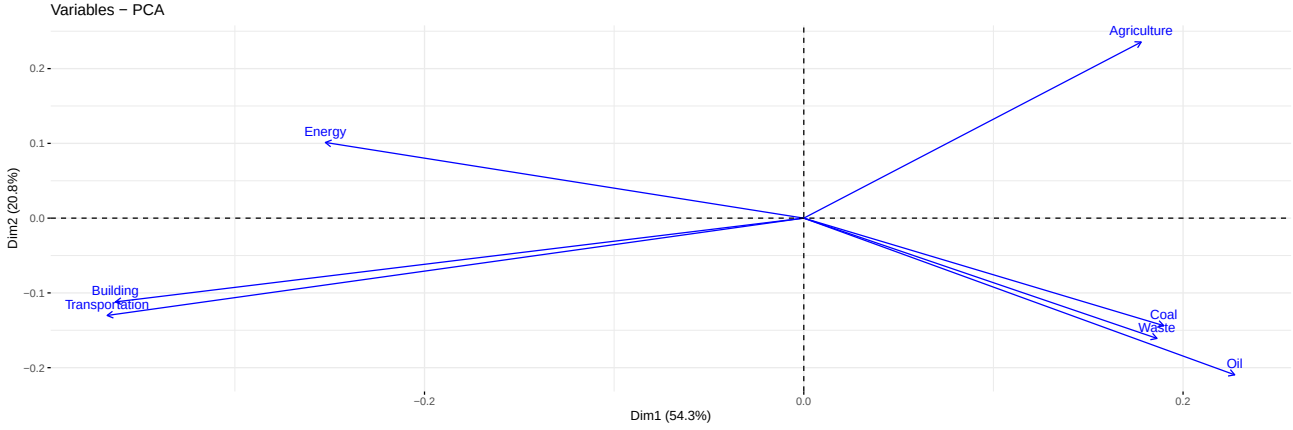


Figure 12: PCA vector correlation values of CO_2 emissions in Brunei.

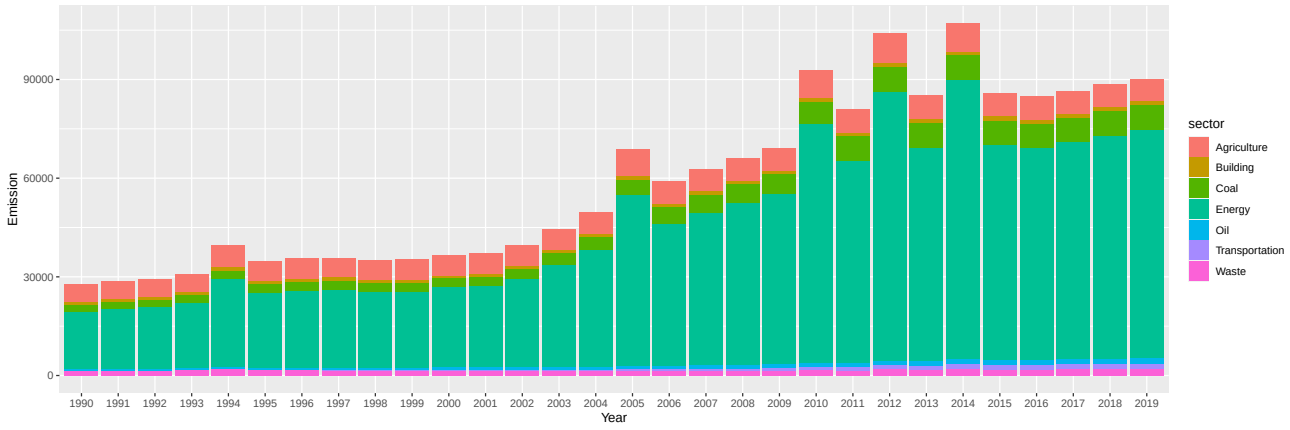


Figure 13: CO_2 emissions in China.

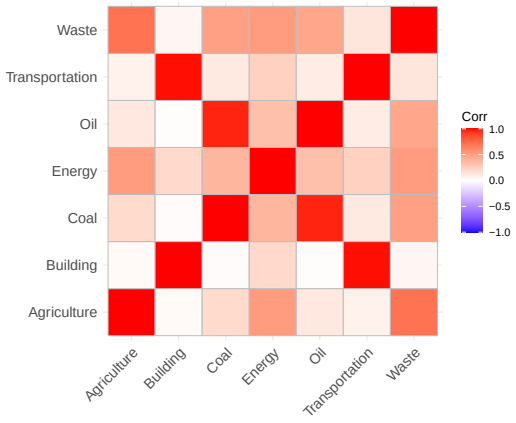


Figure 14: Correlation of CO_2 emissions between sectors in China.

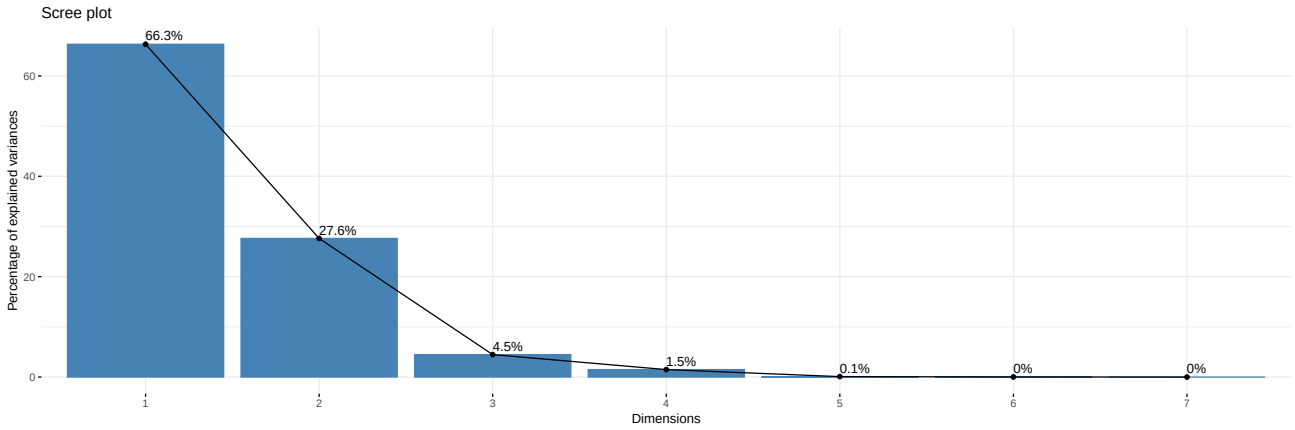


Figure 15: PCA eigen values of CO_2 emissions in China.

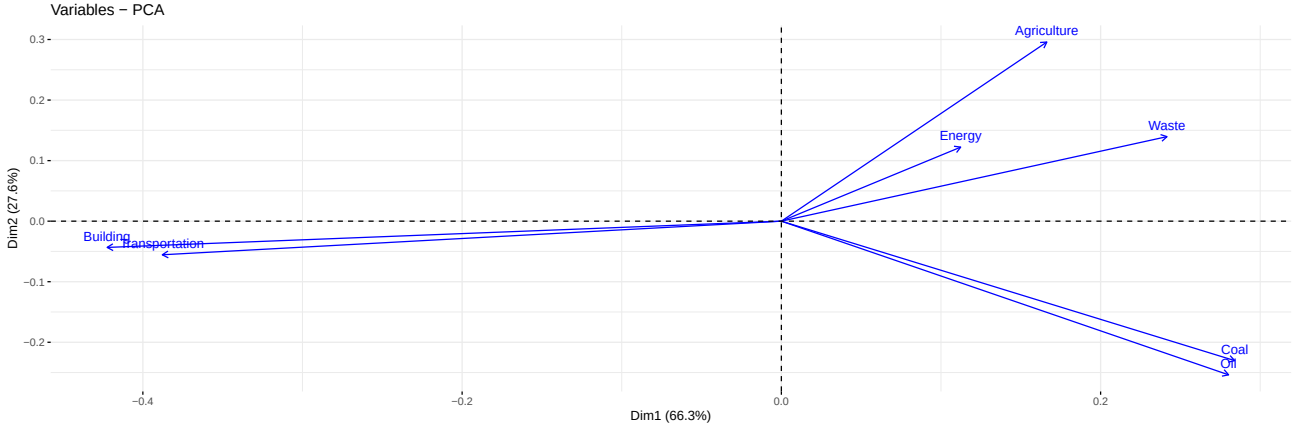


Figure 16: PCA vector correlation values of CO_2 emissions in China.

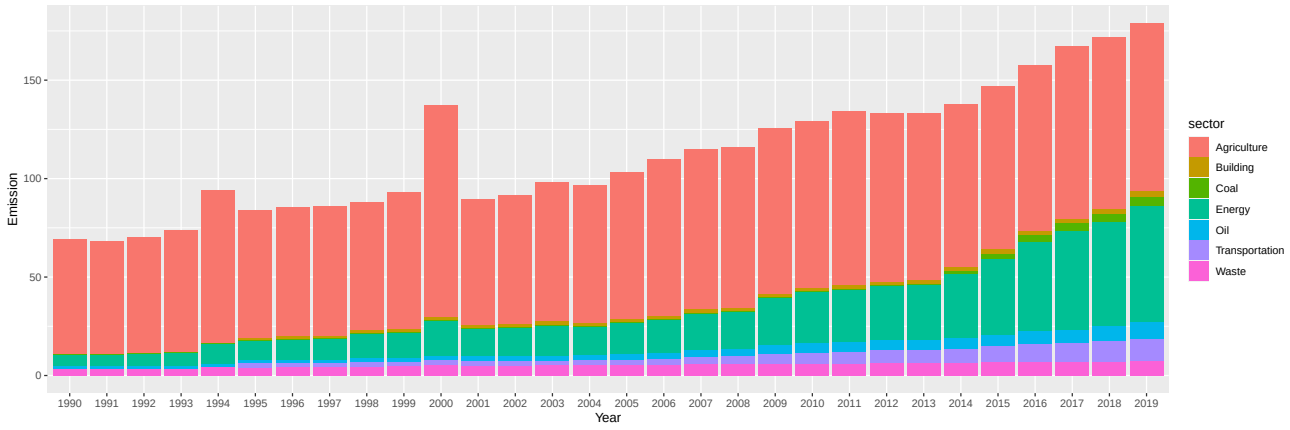


Figure 17: CO_2 emissions in Cambodia.

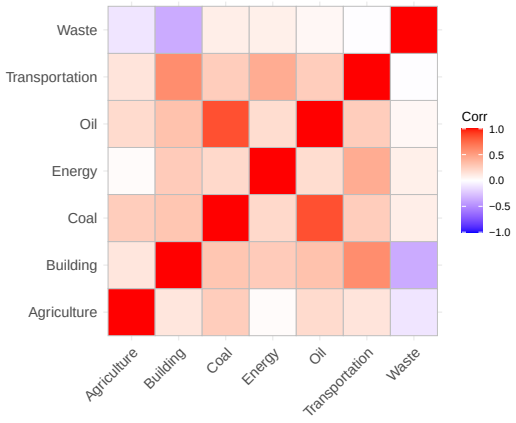


Figure 18: Correlation of CO_2 emissions between sectors in Cambodia.

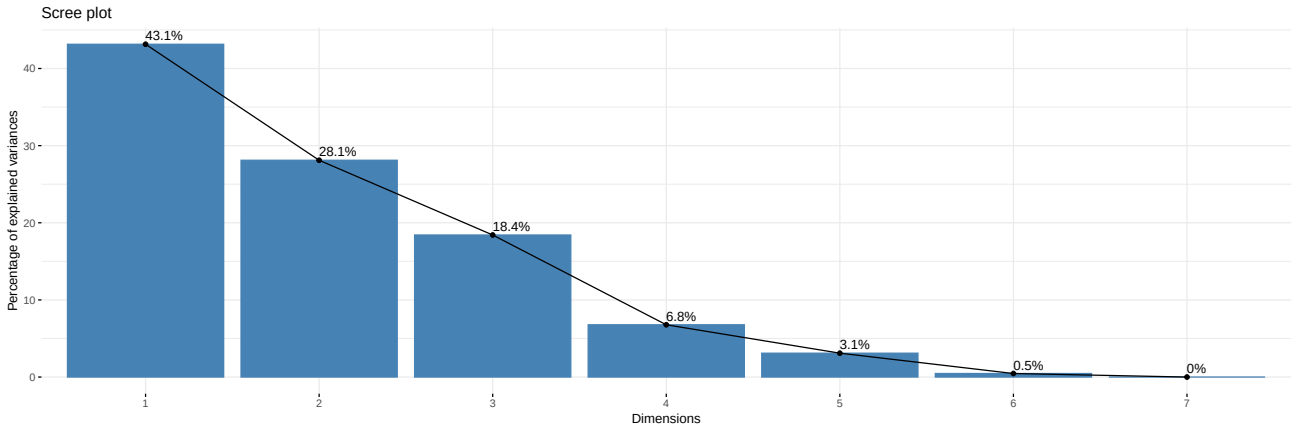
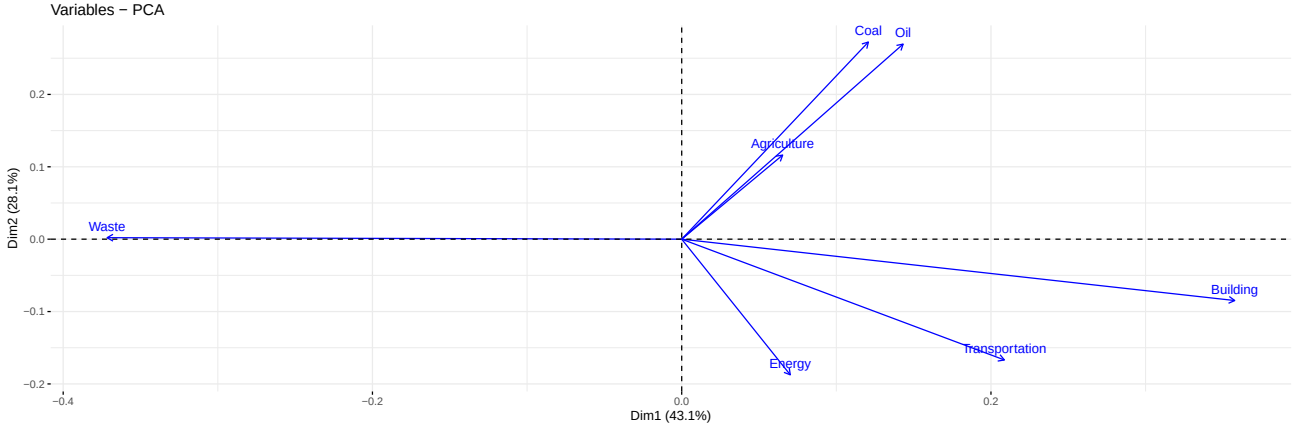


Figure 19: PCA eigen values of CO_2 emissions in Cambodia.



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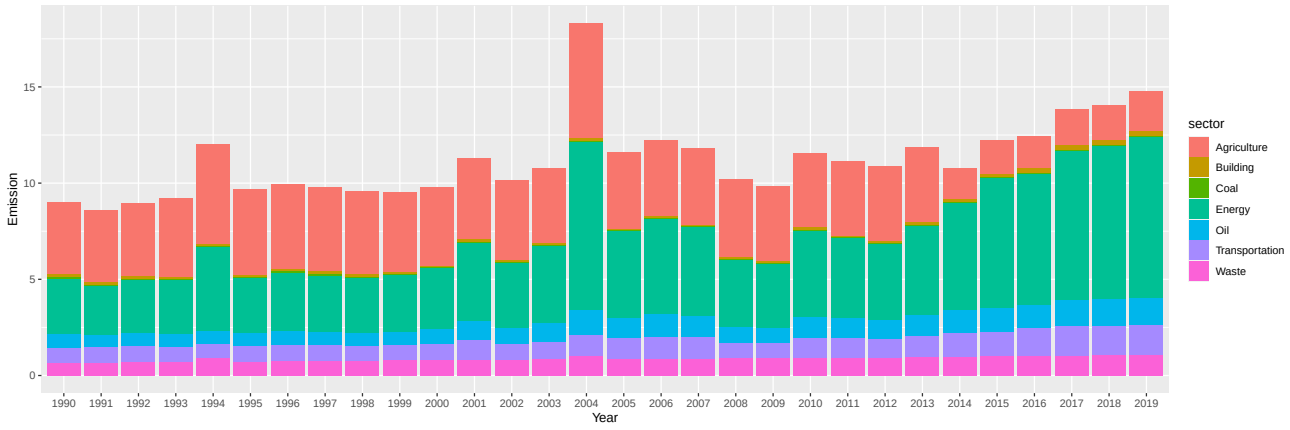


Figure 21: CO_2 emissions in Fiji.

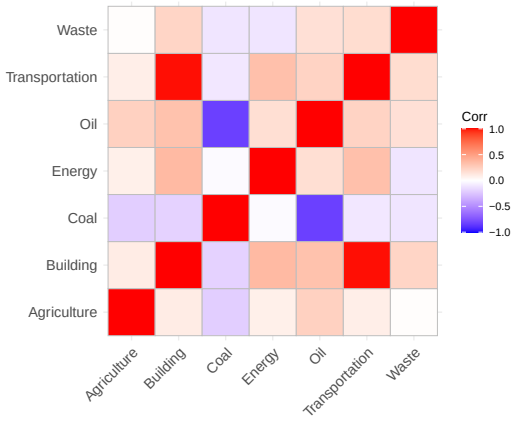
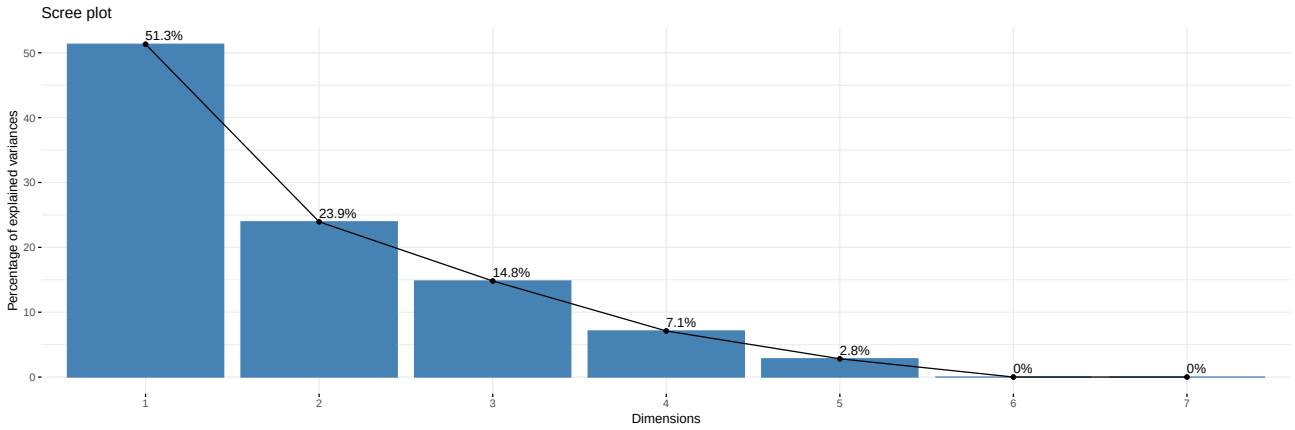


Figure 22: Correlation of CO_2 emissions between sectors in Fiji.



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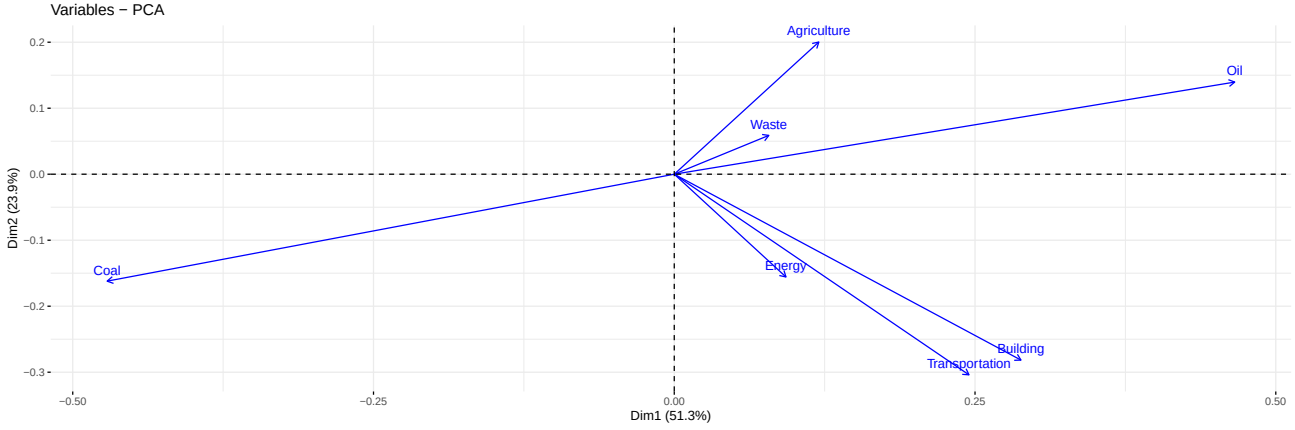


Figure 24: PCA vector correlation values of CO_2 emissions in Fiji.

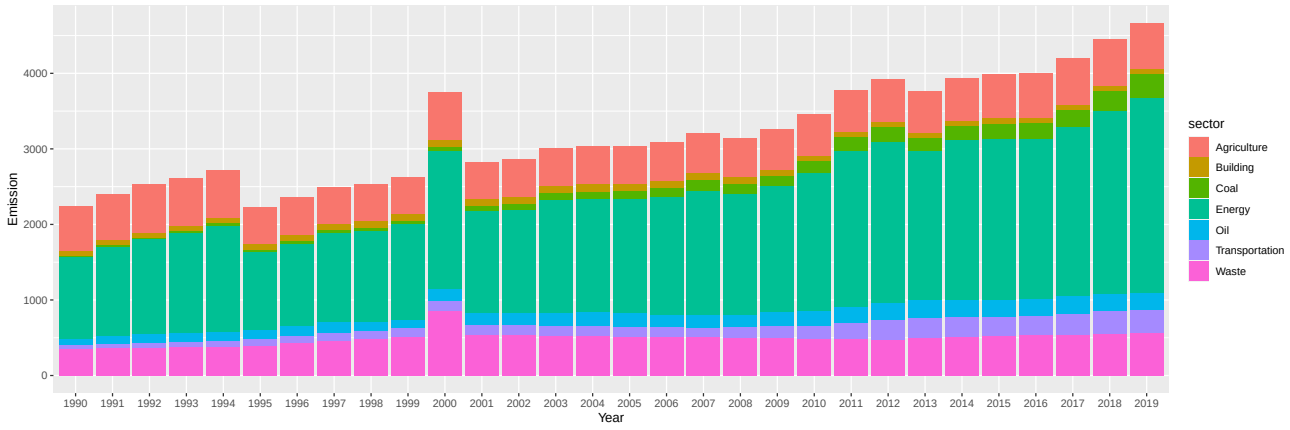


Figure 25: CO_2 emissions in Indonesia.

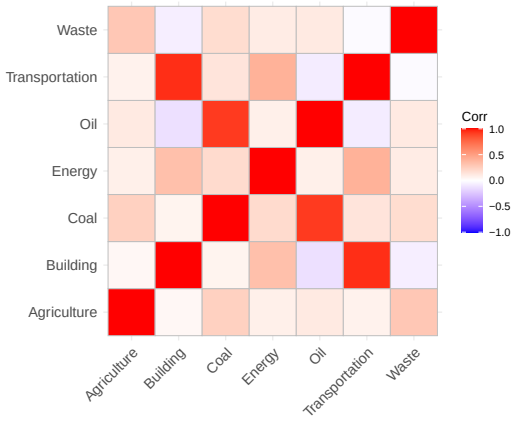
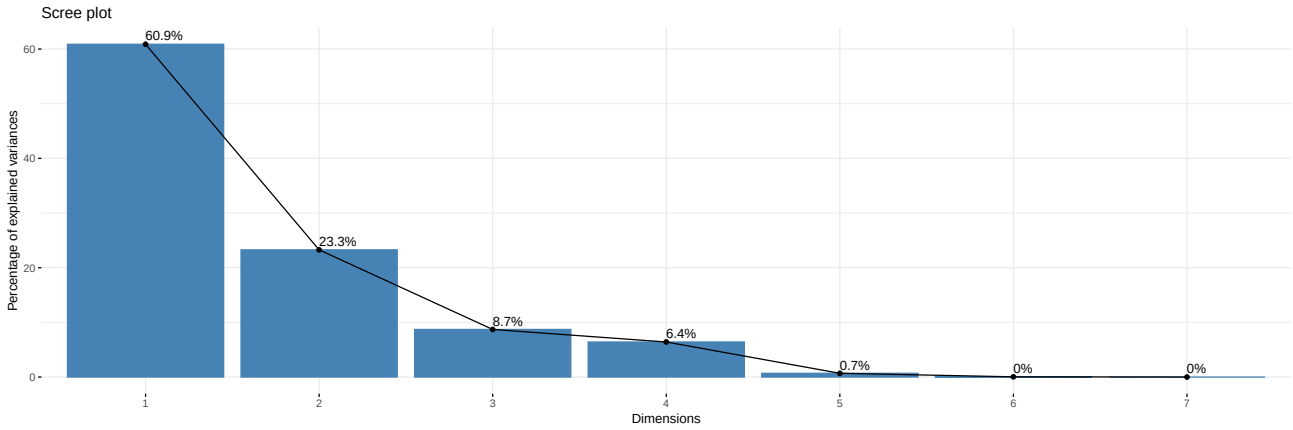


Figure 26: Correlation of CO_2 emissions between sectors in Indonesia.



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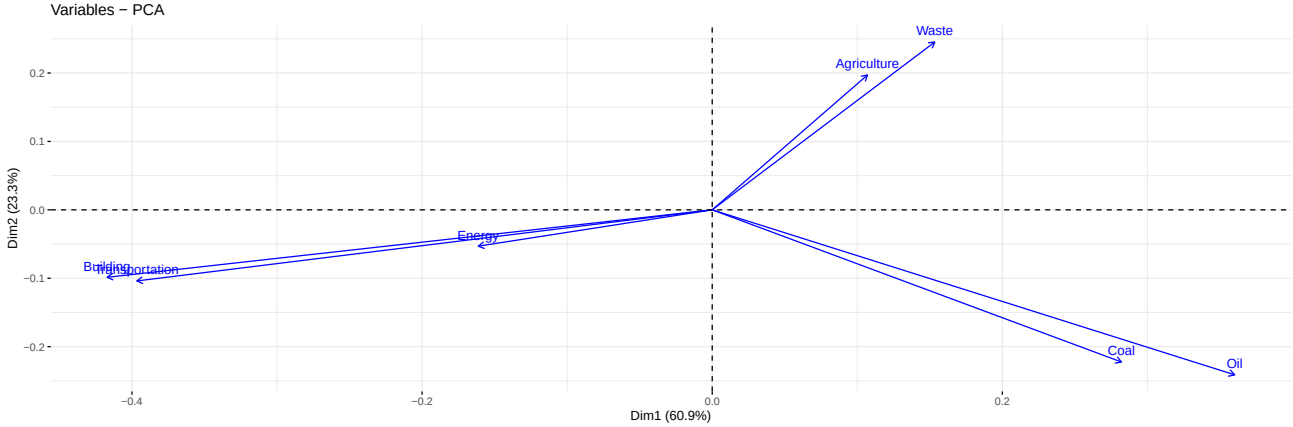

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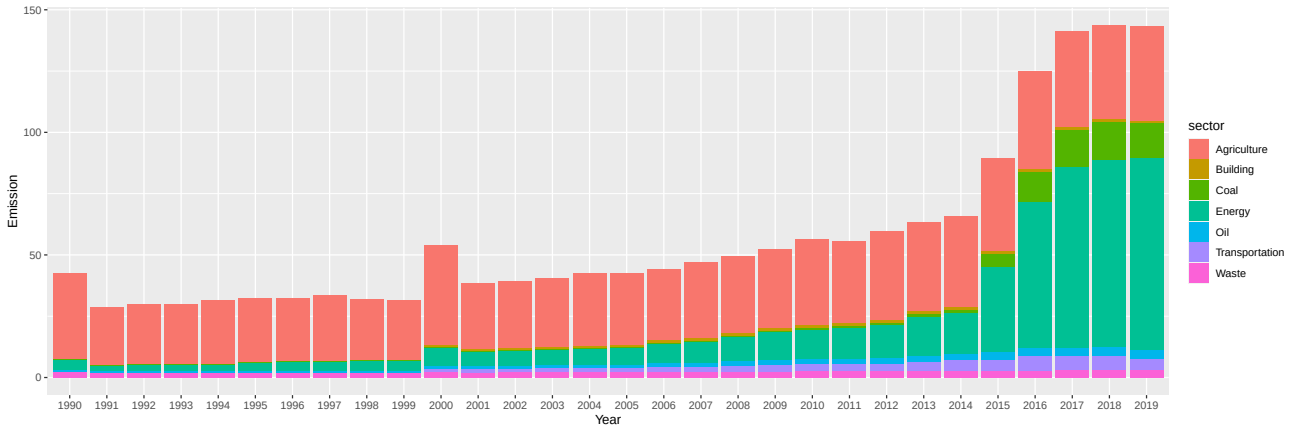

Figure 29: CO_2 emissions in Laos.

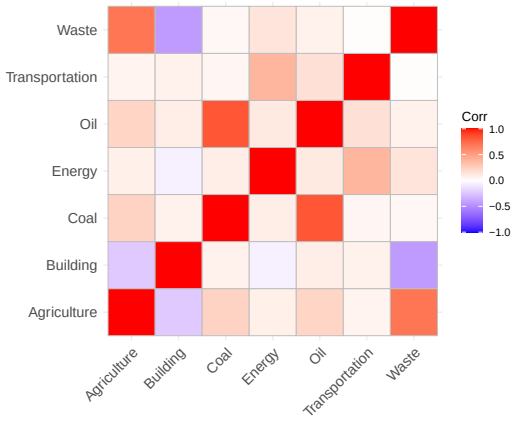

Figure 30: Correlation of CO_2 emissions between sectors in Laos.

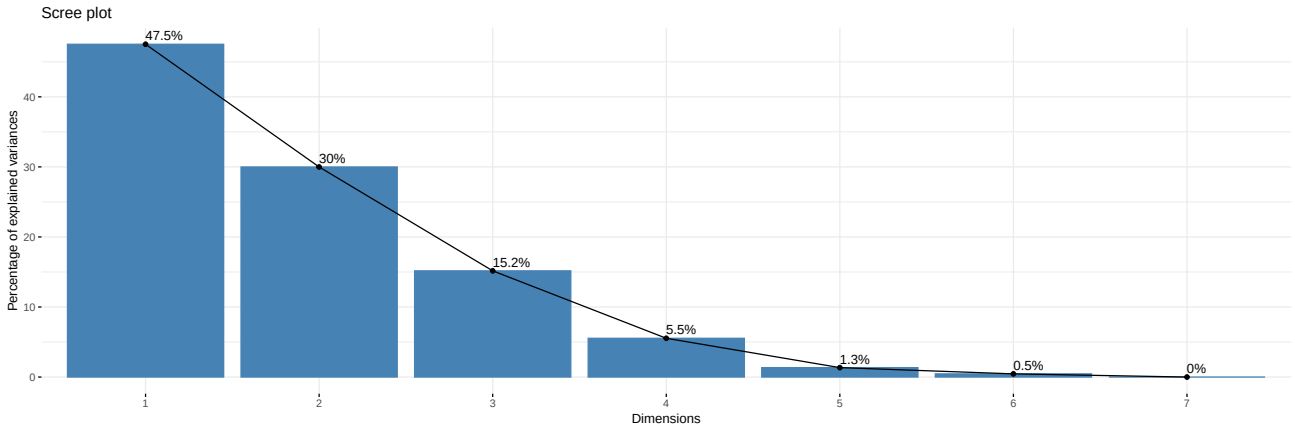

Figure 31: PCA eigen values of CO_2 emissions in Laos.

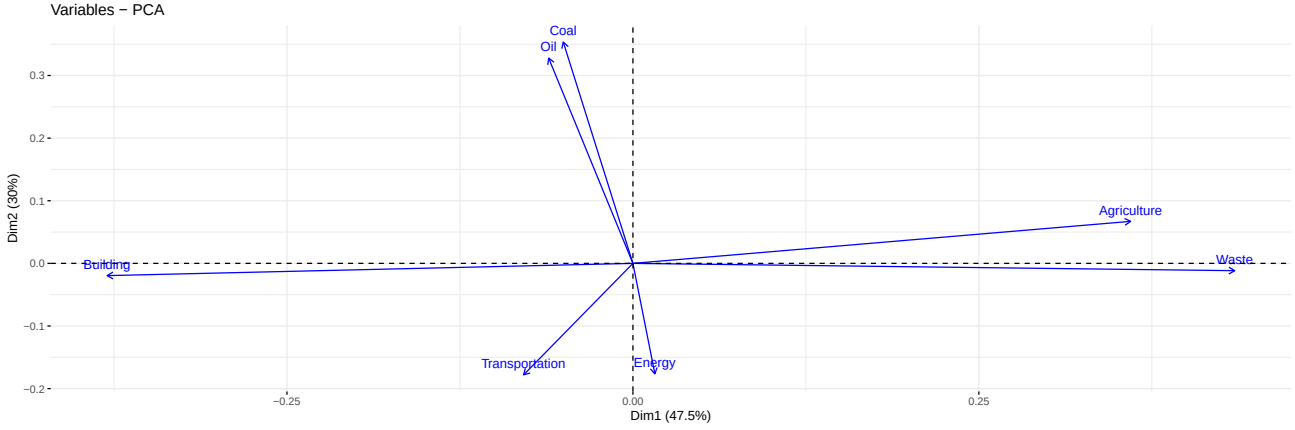

Figure 32: PCA vector correlation values of CO_2 emissions in Laos.

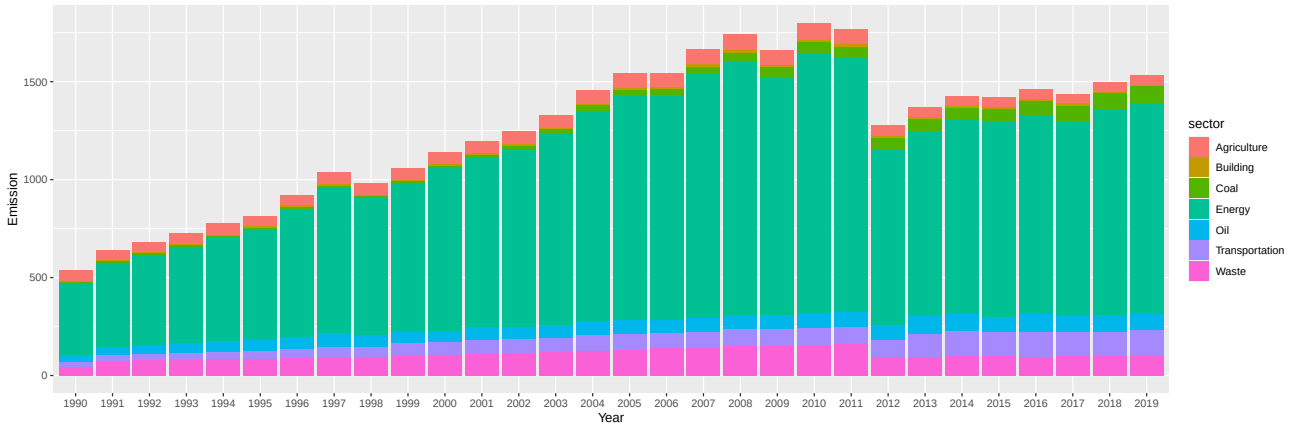

Figure 33: CO_2 emissions in Malaysia.

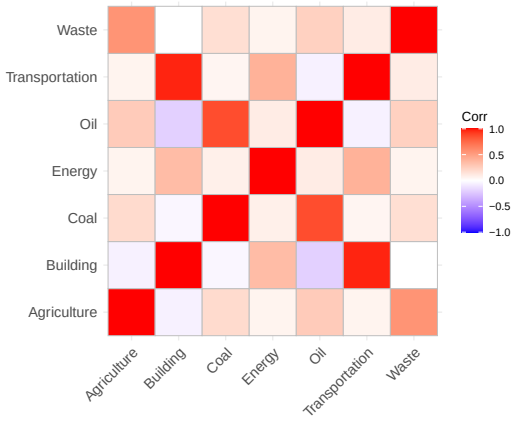

Figure 34: Correlation of CO_2 emissions between sectors in Malaysia.

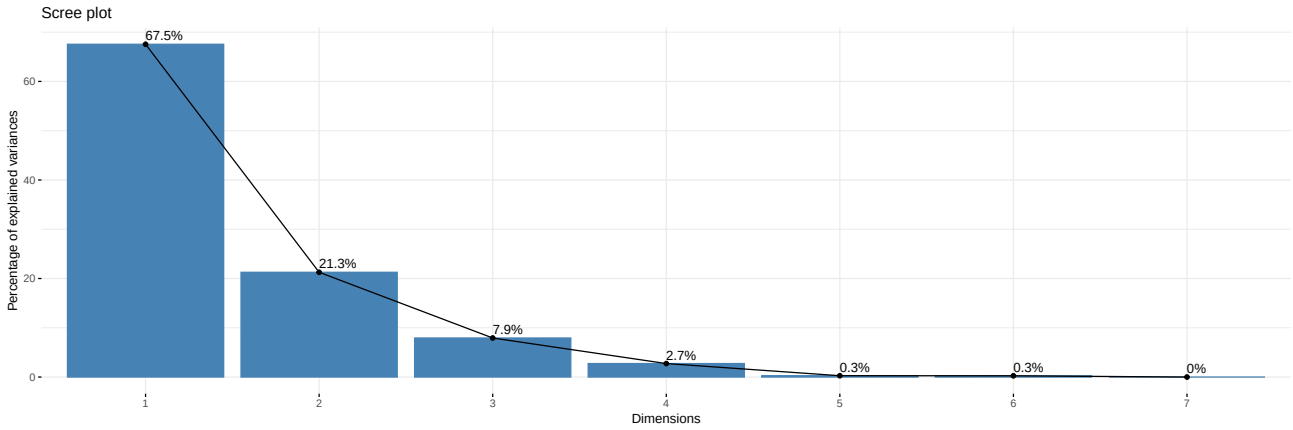

Figure 35: PCA eigen values of CO_2 emissions in Malaysia.

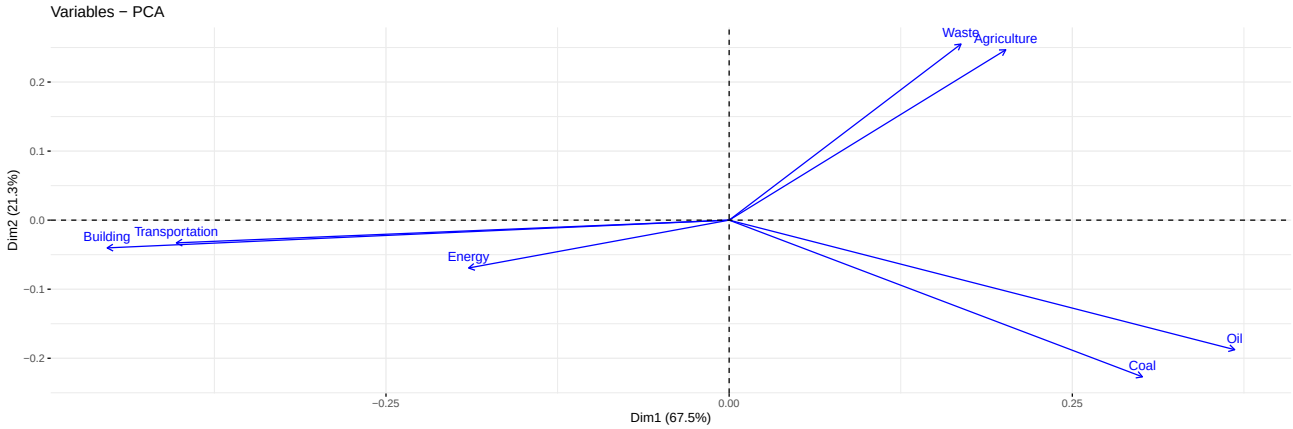

Figure 36: PCA vector correlation values of CO_2 emissions in Malaysia.

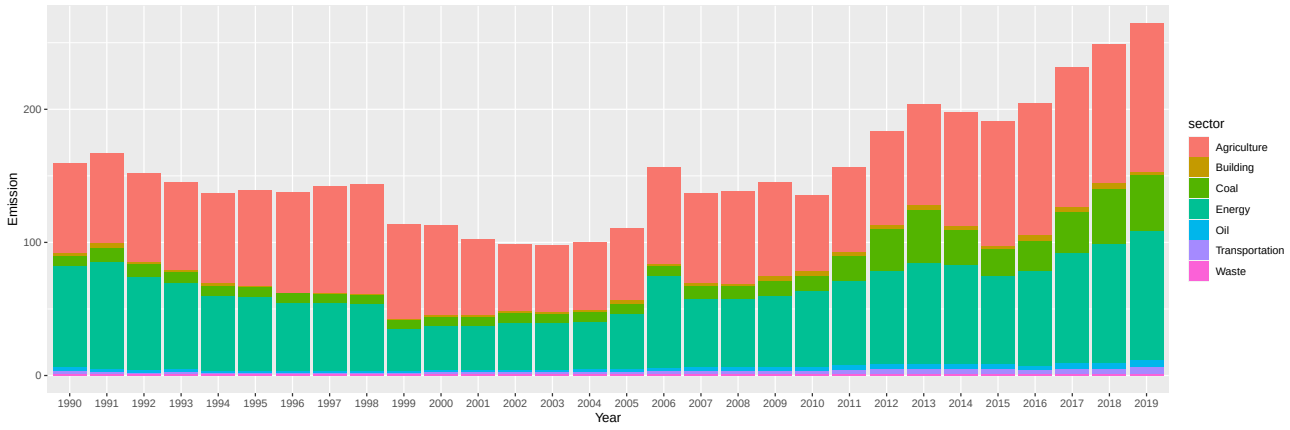

Figure 37: CO_2 emissions in Mongolia.

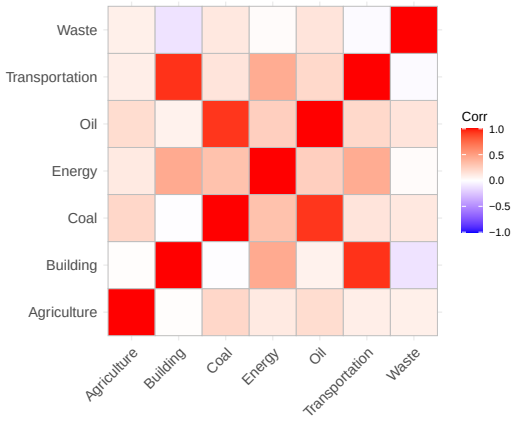

Figure 38: Correlation of CO_2 emissions between sectors in Mongolia.

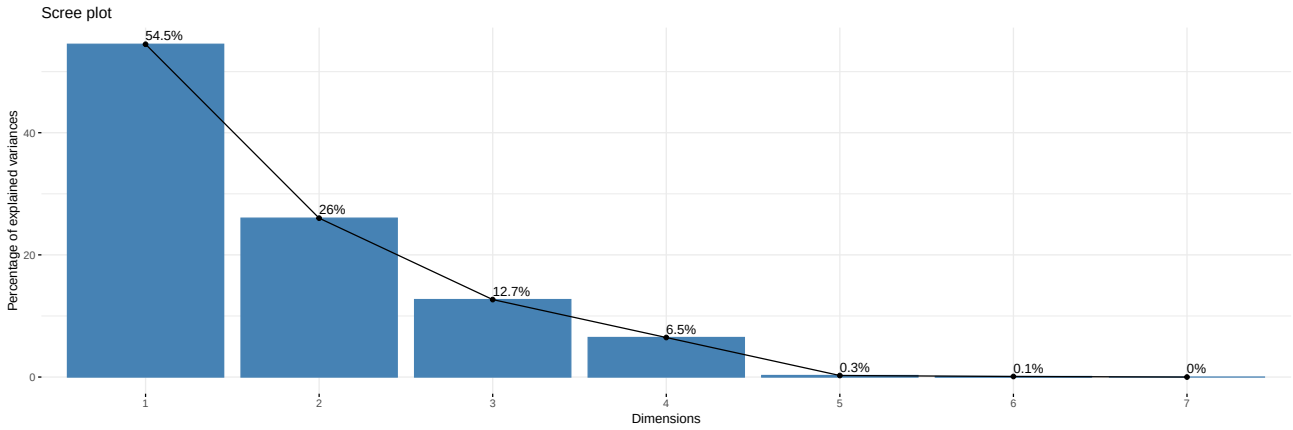

Figure 39: PCA eigen values of CO_2 emissions in Mongolia.

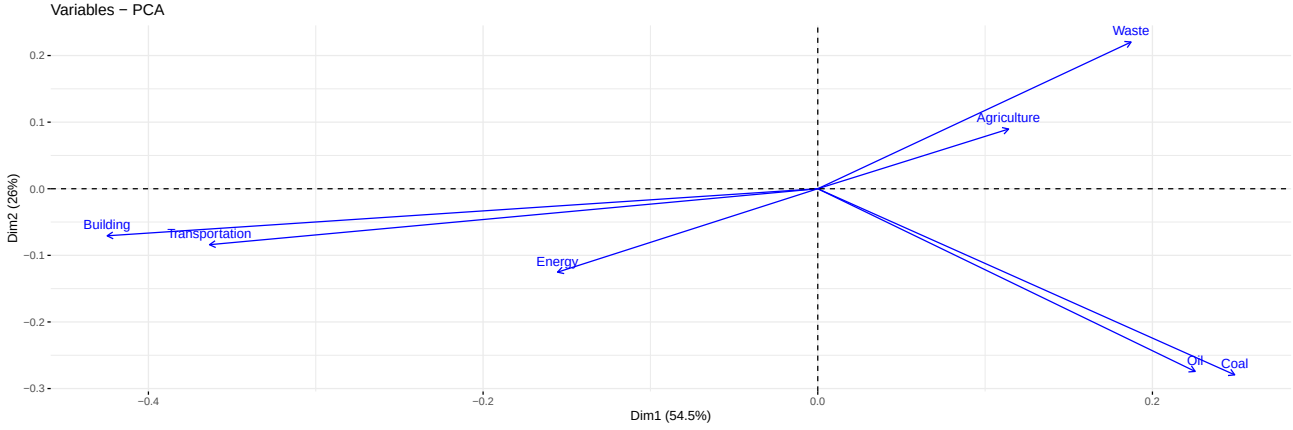

Figure 40: PCA vector correlation values of CO_2 emissions in Mongolia.

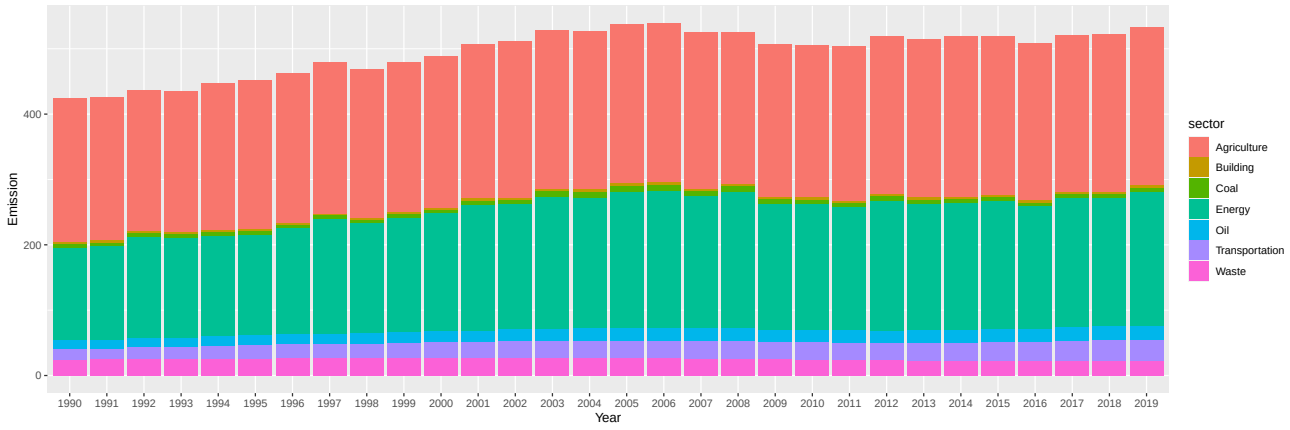

Figure 41: CO_2 emissions in NewZealand.

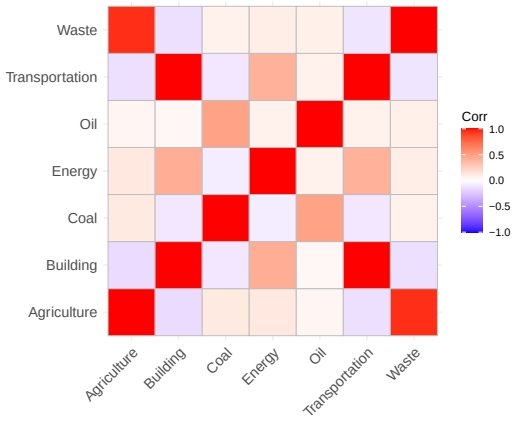

Figure 42: Correlation of CO_2 emissions between sectors in NewZealand.

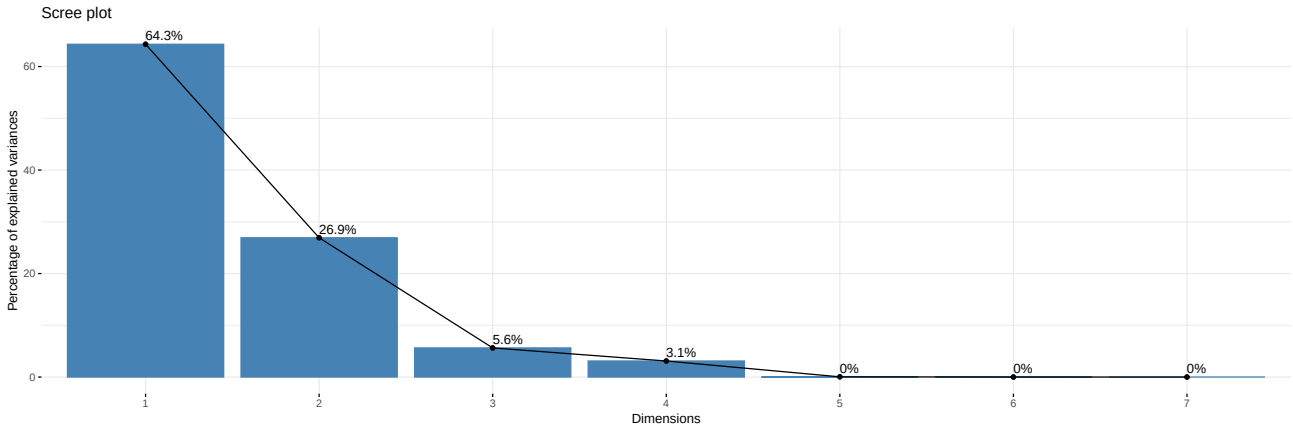

Figure 43: PCA eigen values of CO_2 emissions in NewZealand.

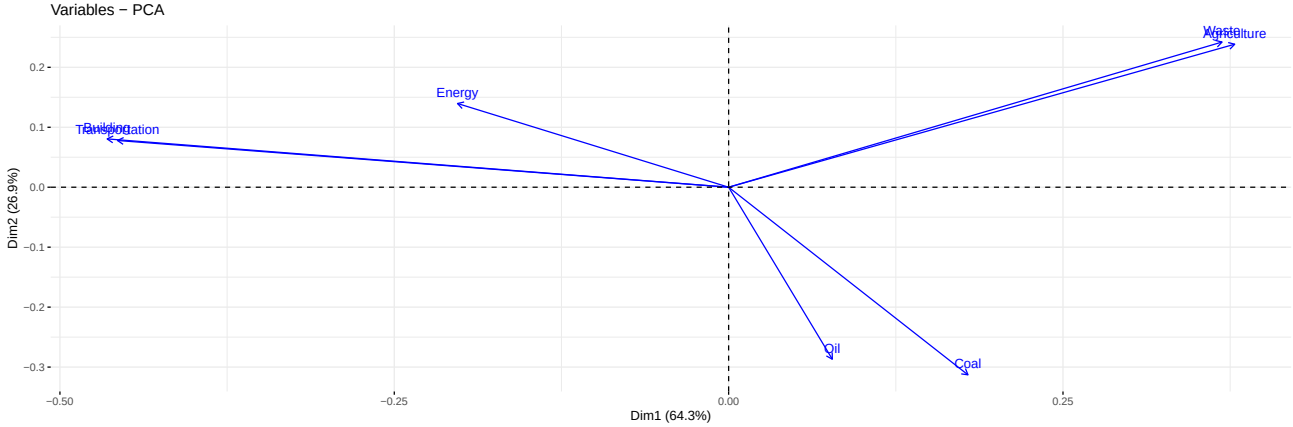

Figure 44: PCA vector correlation values of CO_2 emissions in NewZealand.

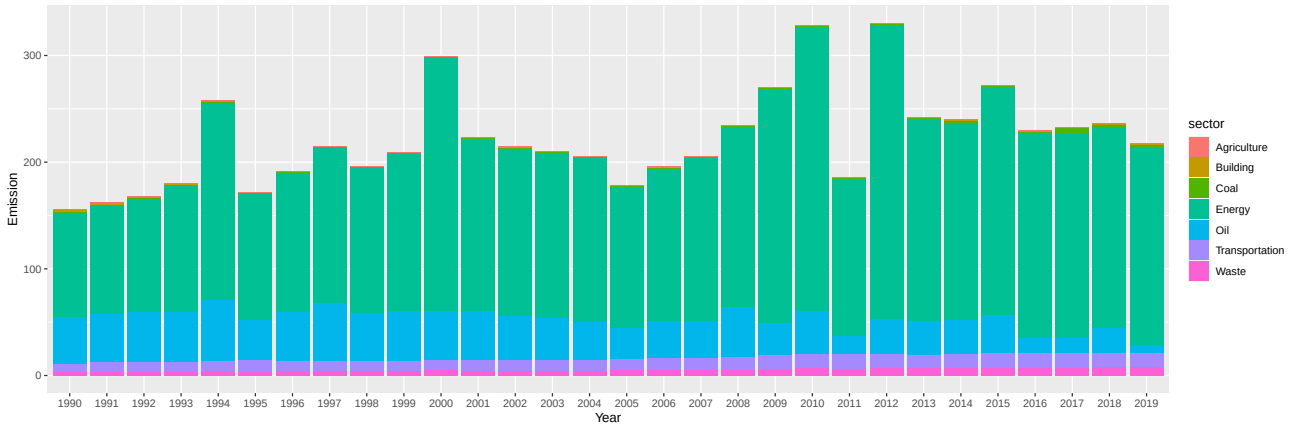

Figure 45: CO_2 emissions in Singapore.

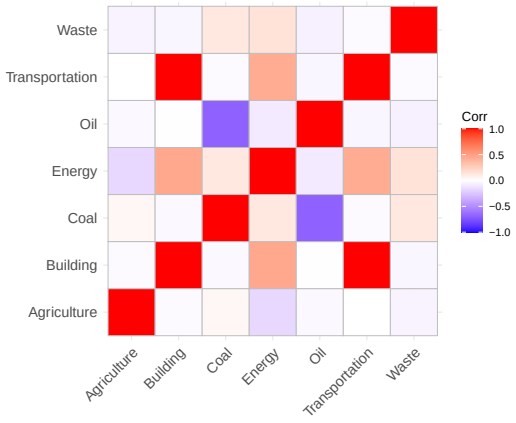

Figure 46: Correlation of CO_2 emissions between sectors in Singapore.

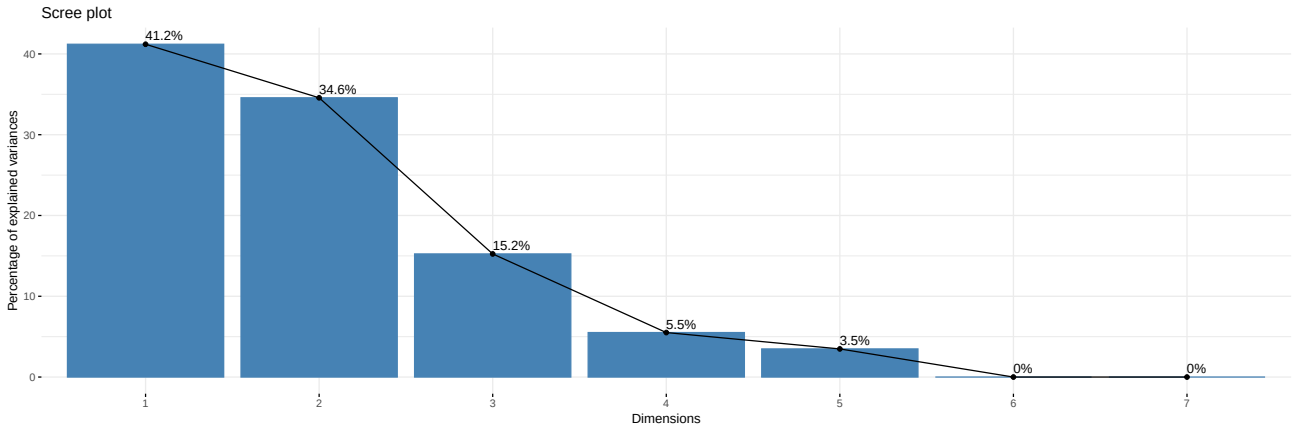

Figure 47: PCA eigen values of CO_2 emissions in Singapore.

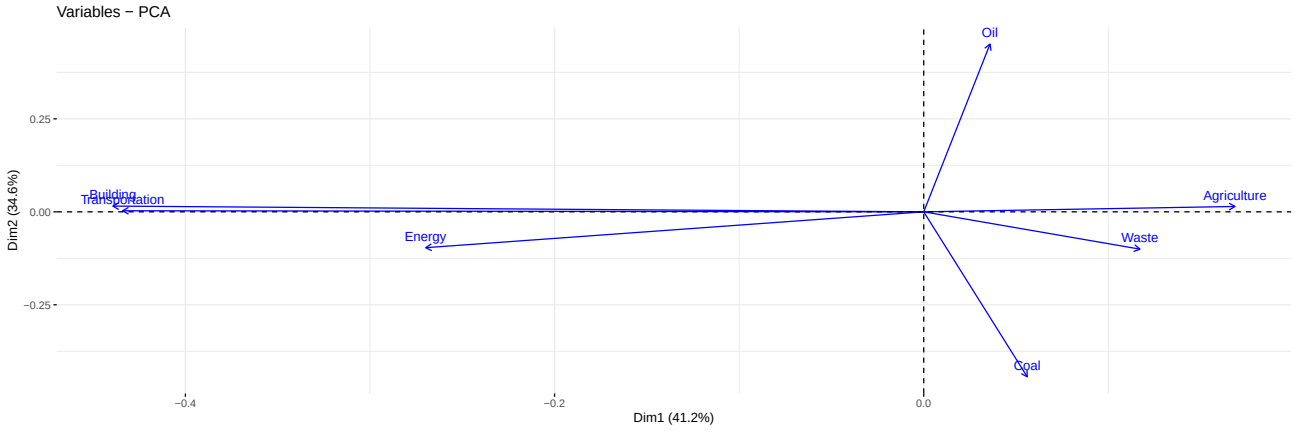

Figure 48: PCA vector correlation values of CO_2 emissions in Singapore.

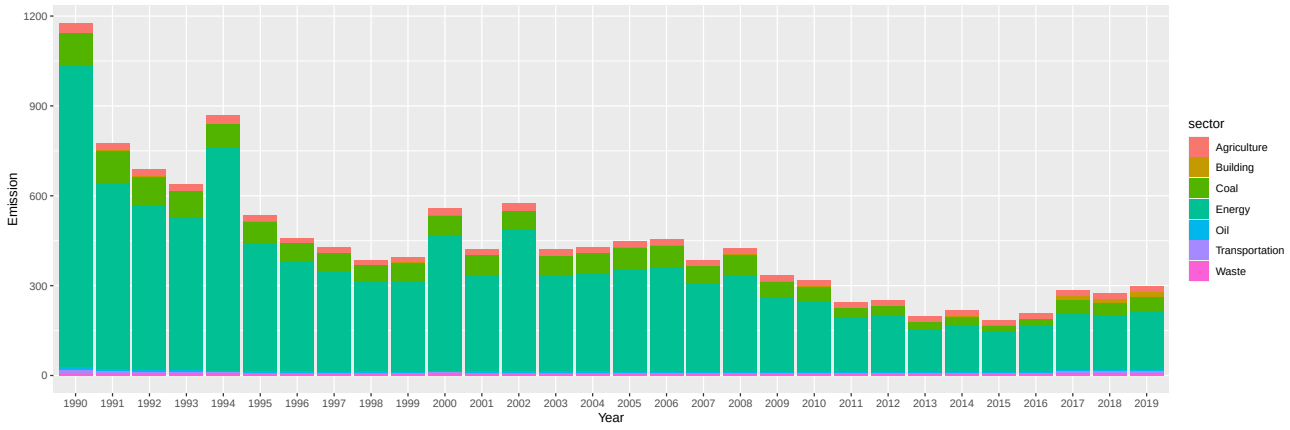

Figure 49: CO_2 emissions in NorthKorea.

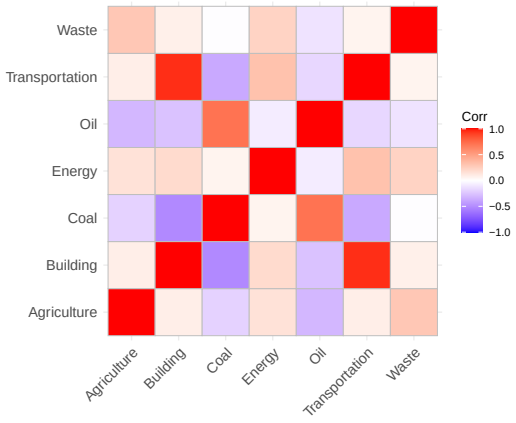

Figure 50: Correlation of CO_2 emissions between sectors in NorthKorea.

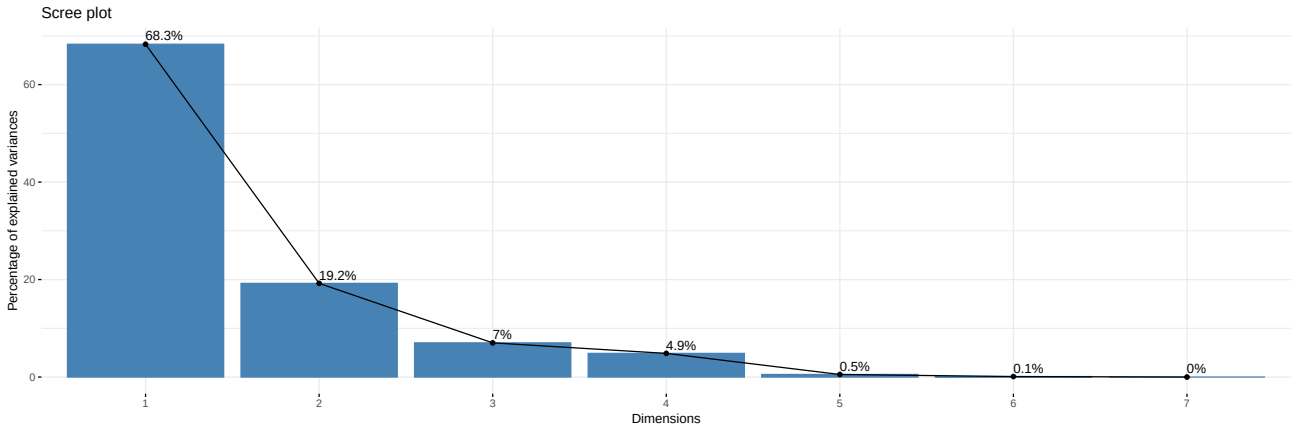

Figure 51: PCA eigen values of CO_2 emissions in NorthKorea.

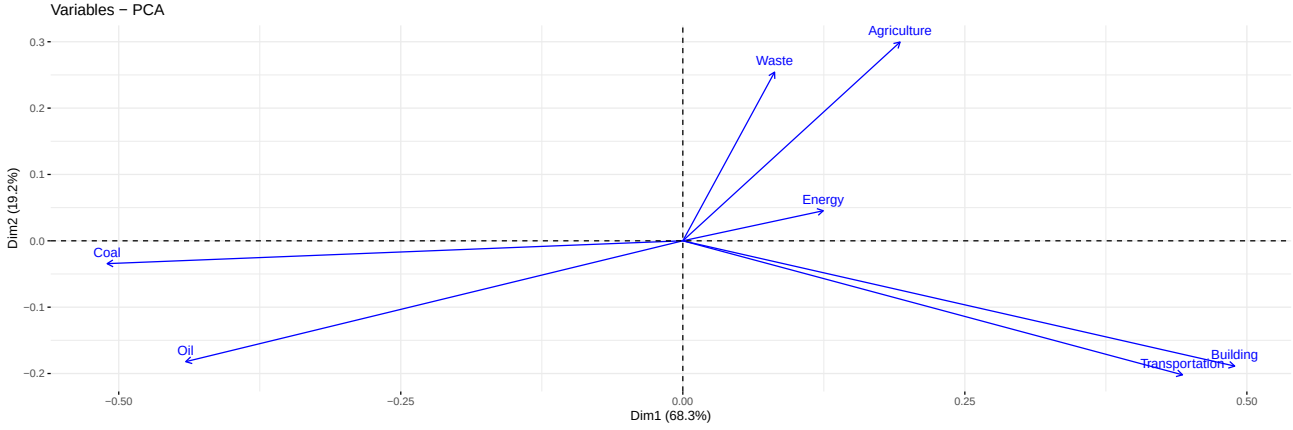

Figure 52: PCA vector correlation values of CO_2 emissions in NorthKorea.

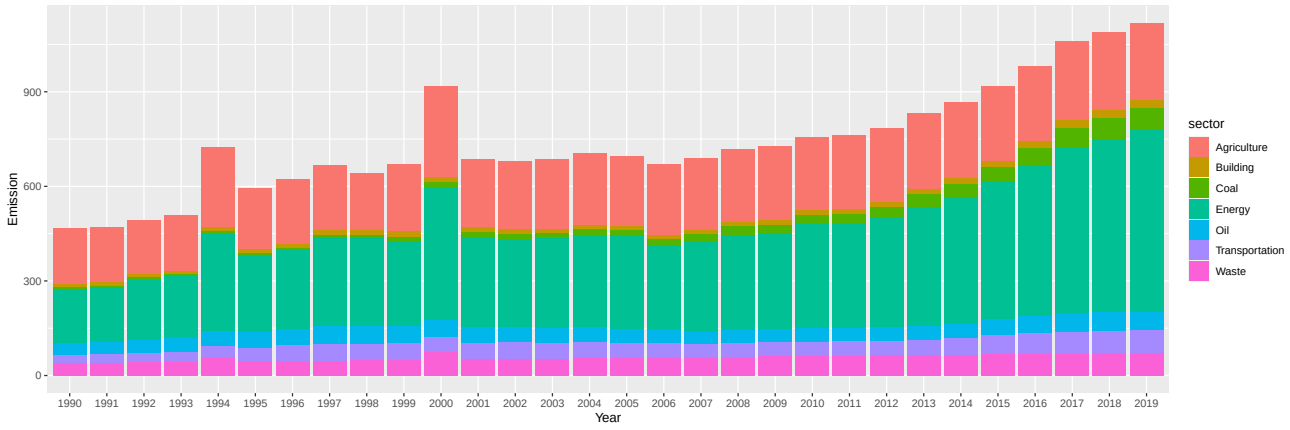

Figure 53: CO_2 emissions in Philippines.

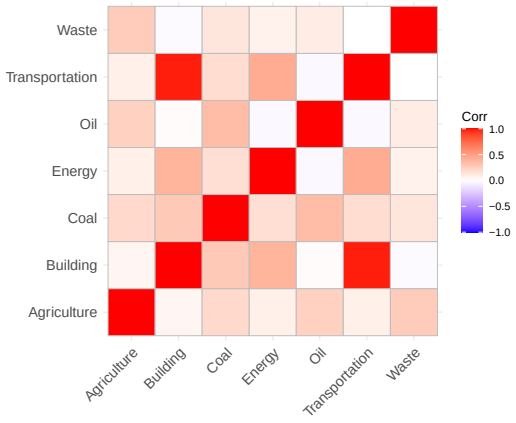

Figure 54: Correlation of CO_2 emissions between sectors in Philippines.

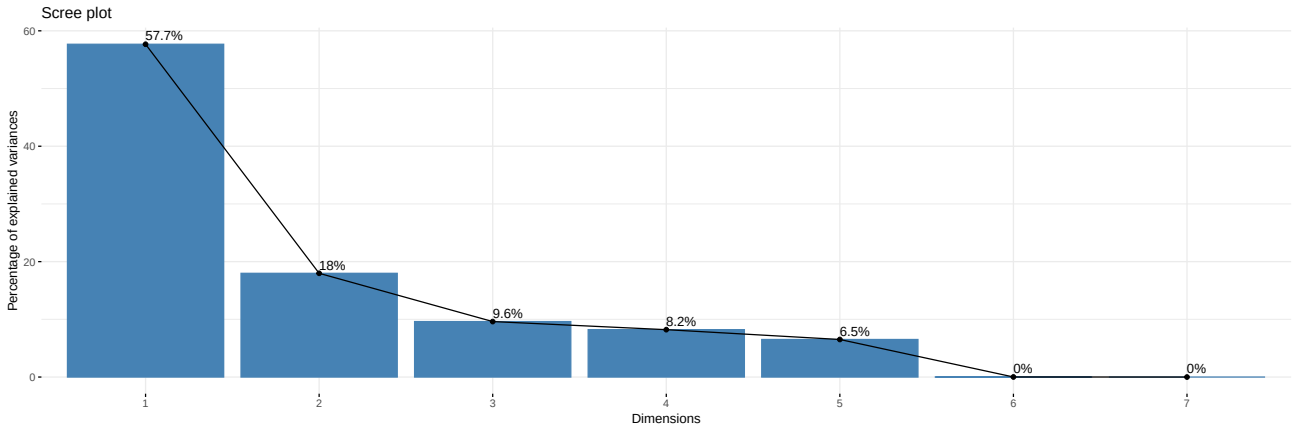

Figure 55: PCA eigen values of CO_2 emissions in Philippines.

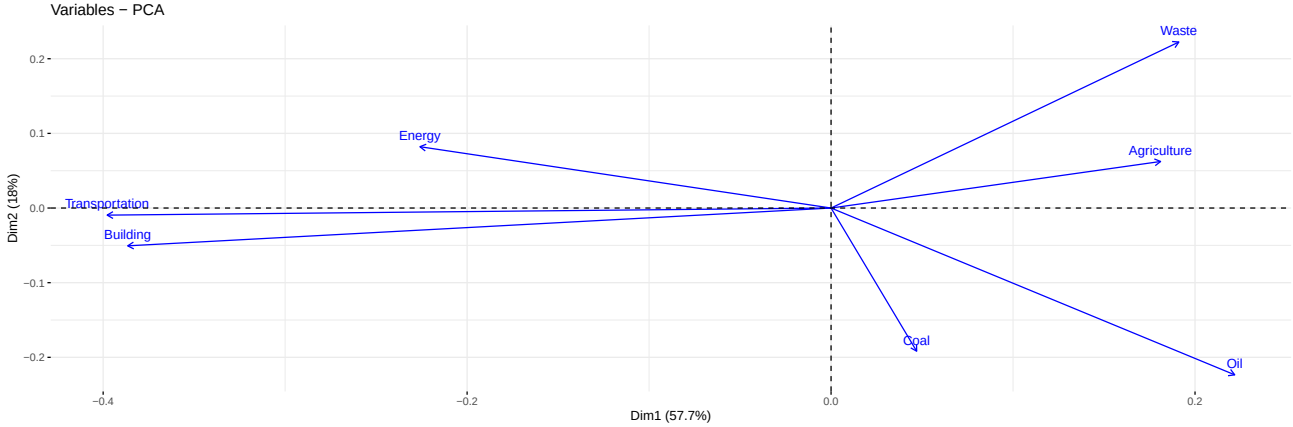

Figure 56: PCA vector correlation values of CO_2 emissions in Philippines.

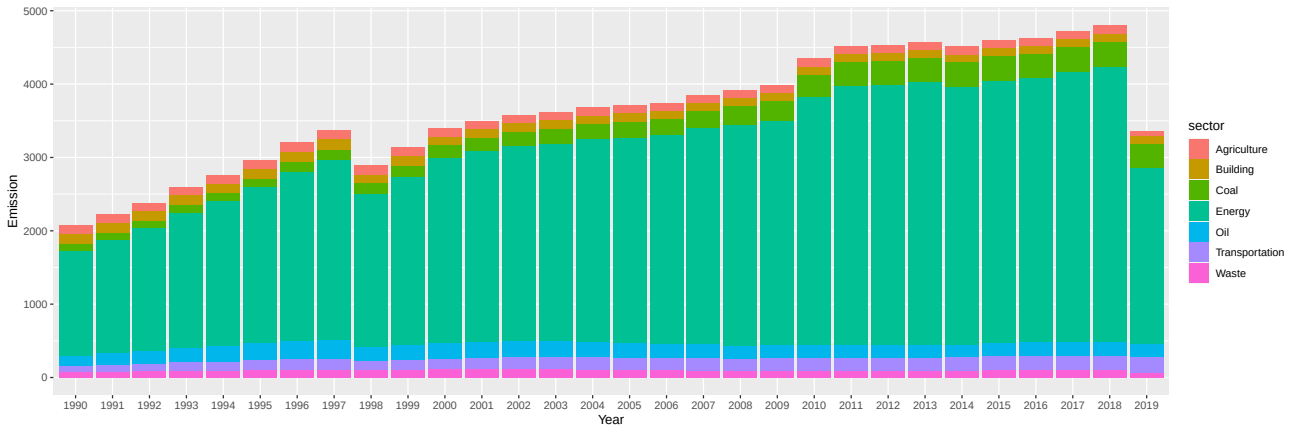

Figure 57: CO_2 emissions in SouthKorea.

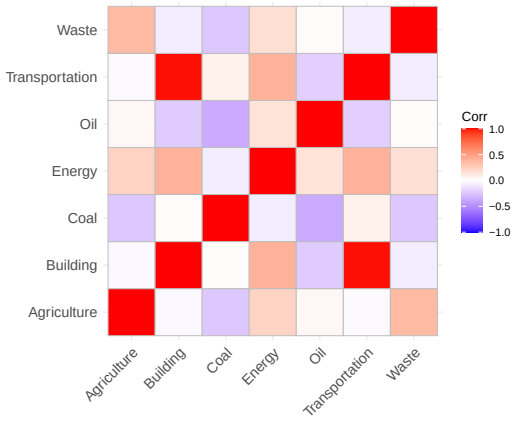

Figure 58: Correlation of CO_2 emissions between sectors in SouthKorea.

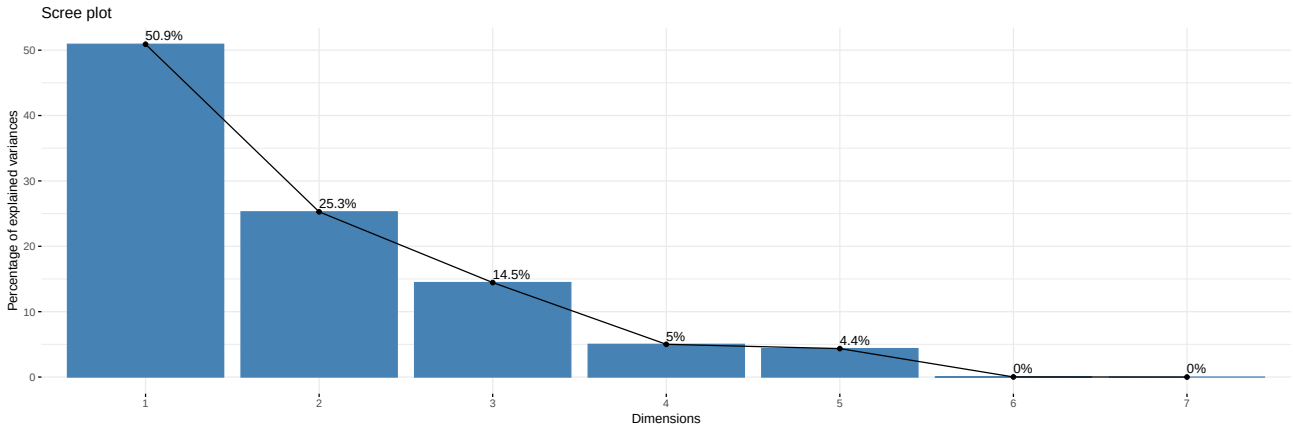

Figure 59: PCA eigen values of CO_2 emissions in SouthKorea.

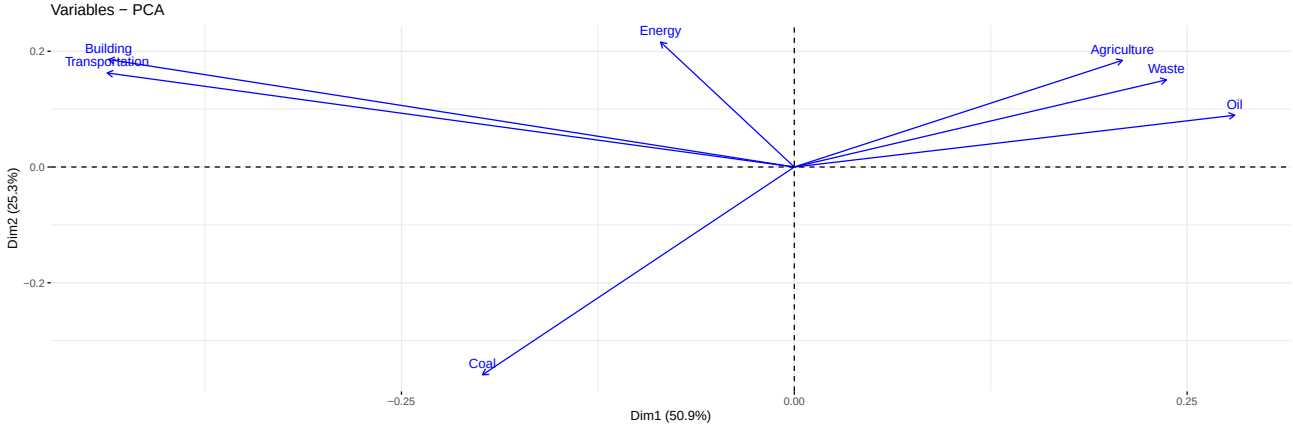

Figure 60: PCA vector correlation values of CO_2 emissions in SouthKorea.

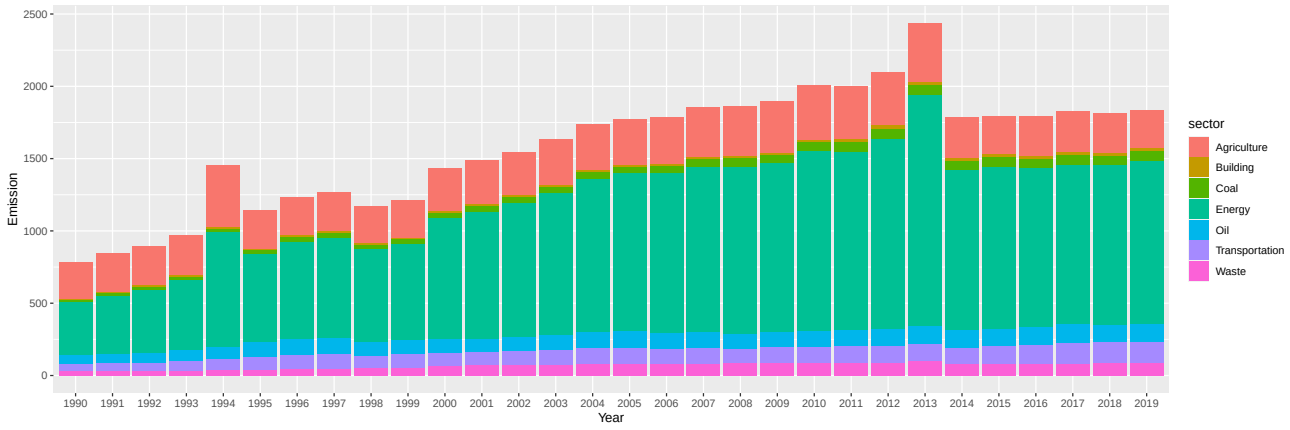

Figure 61: CO_2 emissions in Thailand.

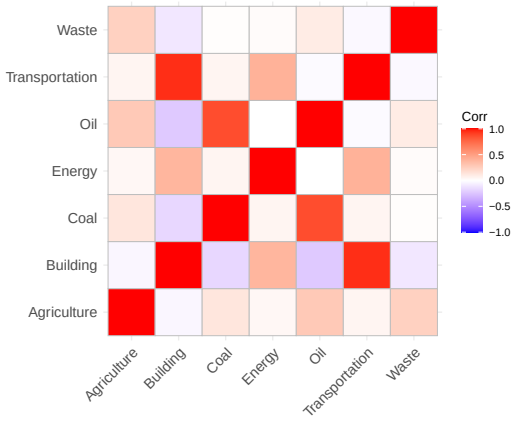

Figure 62: Correlation of CO_2 emissions between sectors in Thailand.

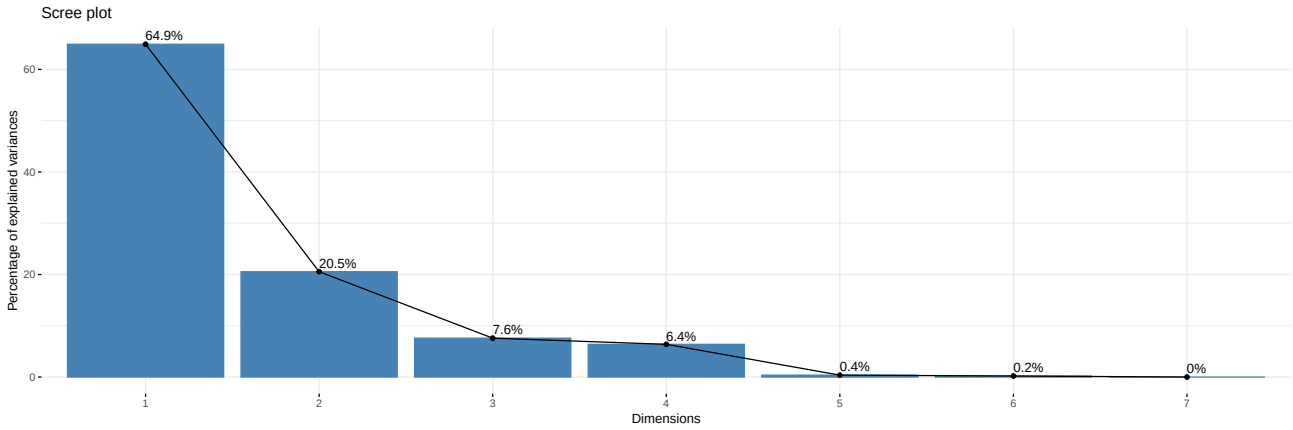

Figure 63: PCA eigen values of CO_2 emissions in Thailand.

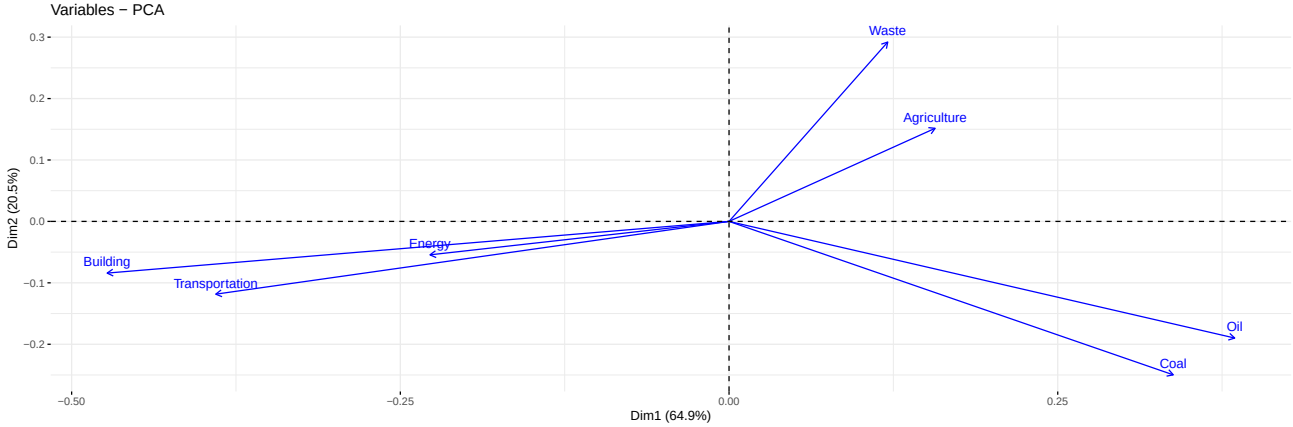

Figure 64: PCA vector correlation values of CO_2 emissions in Thailand.

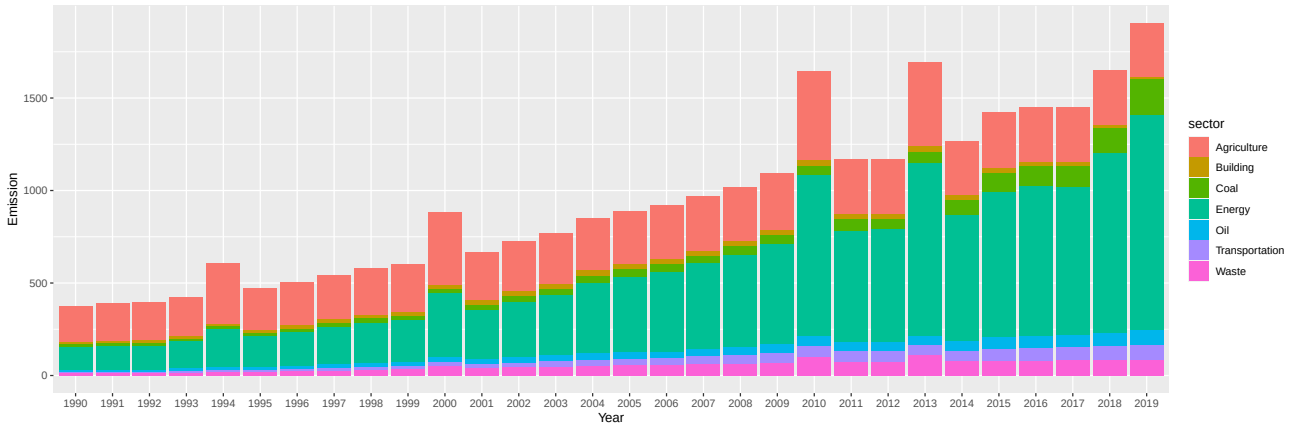

Figure 65: CO_2 emissions in Vietnam.

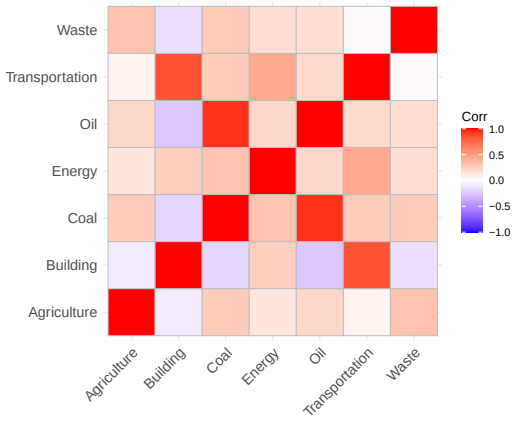

Figure 66: Correlation of CO_2 emissions between sectors in Vietnam.

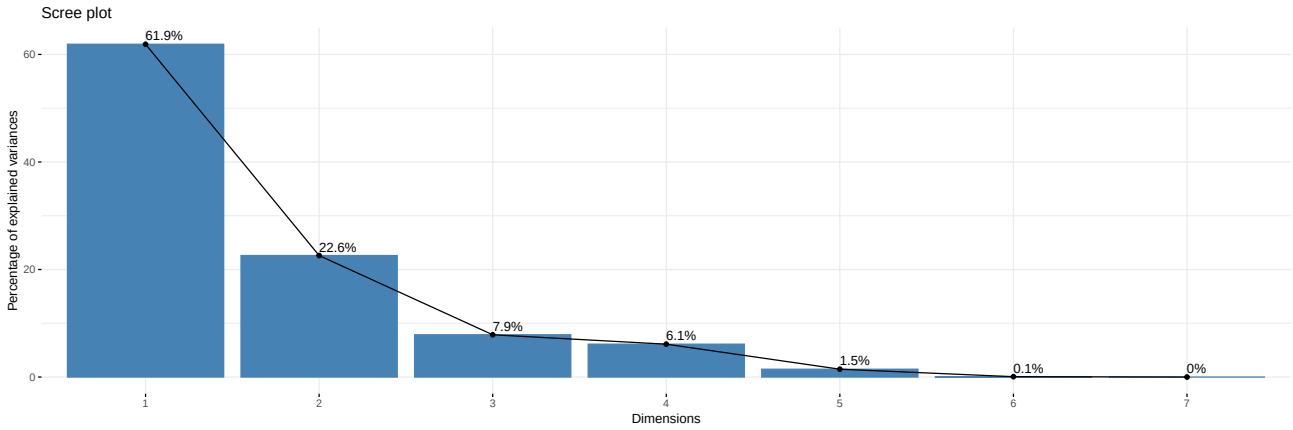

Figure 67: PCA eigen values of CO_2 emissions in Vietnam.

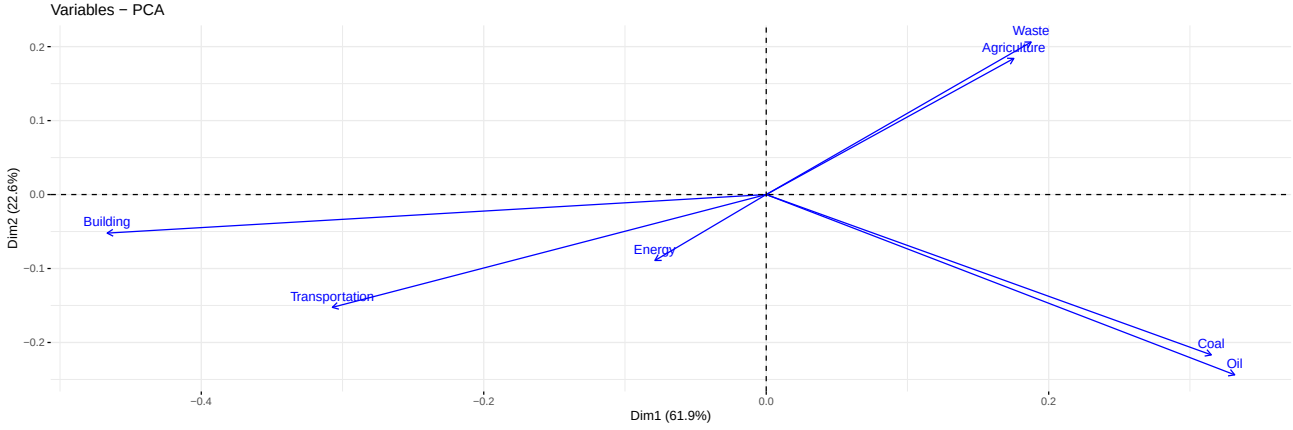

Figure 68: PCA vector correlation values of CO_2 emissions in Vietnam.