The Green Party and Germany's Environment: Integration, Influence, and Comparisons

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ABSTRACT

The German Greens are helping Germany continue its legacy of being eco-friendly. This paper covers the history of the German Green Party. It will evaluate the success of the party and the reasons for its success. In addition, it will compare the German Greens to the United States Green Party in terms of their vote wins in elections and impact on their respective countries' environments. The German Greens are known to be highly successful, forming coalitions with several big-name German parties. The party won 20.5% of votes in the 2019 European Election. In comparison, the US Green Party is not as well known. It was found that the German Green Party won a steadily increasing number of votes in every election, while the US Green Party had an overall decrease in the number of votes won every election. In addition, Germany has decreased its carbon dioxide emissions since 1971, while the US yearly carbon emission totals have increased. Because the Green Parties from the two countries have very similar policies, the reasons for their gap in success will be explored. In doing this, the conditions and actions required to form a highly dynamic political party will be indicated. Given the imminent problem of environmental degradation, this research endeavor would help countries and political parties understand how to properly care for the planet. It will also examine the direct impact of the strength of a political party on its country's culture.

Introduction

Germany has an extensive environmental history that has influenced its citizens and political scene. The Green Party of Germany is a left-wing, sustainability-focused political party initially formed as a combination of several grassroots environmental groups. This paper will cover the environmental measures that Germany has taken since the Nazi regime and will explore how these advancements have formed the Green Party and how the Green Party has become increasingly successful, eventually winning 20.5% of votes and becoming the second-largest German political party in the 2019 European Election. Germany and the United States will be compared in terms of their carbon dioxide emissions, environmental policies, and success of their respective Green Parties to better understand the causes of varying sustainability measures across countries.

Environmental Policies before World War II

During Nazi Germany, awareness of environmental issues began to spread while industrialism grew. The dictatorship released the Reich Nature Protection Law, which required firms to consult with the government before modifying the landscape. Anna Bramwell, author of *Blood and Soil*, argues that the Nazi Minister of Agriculture, Richard Walther Darre, should be called the "Father of the Greens". In 1934, the Nazis implemented the *Dauerwald* ("permanent forest") Doctrine. The doctrine advocated for maintaining health of forest biomes to maximize sustainable yields. That being said, many of the regulations set by the Nazis to establish ecological awareness were muddled by racist language and phrases (Brüggemeier).

The Nazis also set a culture in Germany of loving nature. They carried on a hiking tradition that was present since the 19th century and enforced it on children ("Nazi 'Ecology'").

The Nazis also wanted to contain hydroelectric dams and preserve nature. Hitler and the Nazis were vegetarians and promoted animal welfare and protection. In 1933, the Nazis had a meeting and were able to pass laws against animal slaughter and vivisection. Germany became the first country to completely ban vivisection. Hermann Goering, prime minister of Prussia, banned animal vivisection, trapping, and placed restrictions on hunting. The Nazis also hosted an international conference on animal cruelty, which led to regulations on fish slaughter, and laws on wild animal protection.

The reason for the Nazi animal laws is often a point of controversy. It is questioned why Nazis highly favored animal rights but disregarded human rights. It is argued by some that the Nazis advocated for animals to show their respect for them. By protecting animals, yet harming Jews and German minorities, they wanted to show that animals were of greater status than certain Germans.

Regardless of the reasons, the Nazis wanted to protect wildlife and were environment-oriented. It is this ideology that set up the framework for further German environmentalist practices after World War 2 (Brüggemeier).

Carbon Emissions since World War II

At the beginning of the 20th century, Germany's CO2 emissions were at 6 tons. By 1940, they were at 9.16 tons, but by 1945, they had been reduced to 1.69 tons. This is due to the end of World War II, when several industries and factories halted. However, this set the trend for decline in German CO2 emissions that would continue into the 21st century.

German Environmental Advancements from 1950 to 1980

There were many environmental improvements in Germany post-World War 2, many partially in the Chemical Industry. There was a lot of pollution in 1961 in the Bayer and Henkel German Chemical Factories, which created drugs such as aspirin and laundry supplies. There were several accounts of gas smells and soot at the Henkel factory during 1962. In 1958, several complaints were filed at the Bayer factory about foul air. There were also many acidic effluents which destroyed gardens and caused headaches. Many factory effluents also contaminated water and caused large numbers of dead fish. As a result of all the environmental problems caused by the chemical factories, the 1959 modified Prussian Industrial Code allowed for citizens nearby to sue the companies for money. Also, in 1953 in Northern-Rhine Westphalia, the water-management issue was transferred from the Ministry of Economics to the Ministry of Agriculture to make sure ecological issues were being addressed appropriately.

There were also complaints of detergent foam on rivers and lakes caused by detergent industries, which led to the 1961 Detergents Act which enforced the use of at least 80% biodegradable detergent. Businesses also played a large role in caring for the environment. It is documented that German Businesses invested the most out of all stakeholders in Germany in ecological health since 1970. All the environmental problems and consequent advancements led to a growing emphasis on environmentalism (Jones, Lubinski).

In his 1961 election campaign, the Social Democratic Party's representative Willy Brandt briefly mentioned the importance of a blue sky, referencing the growing environmental problems. It was from this point on that left-wing political parties would make the environment a central part of their campaign.

The German Green Political Party was formed in 1979 in response to the growing concern about the environment and was the most impactful European Green Party, taking 28 seats in the Parliament (Jones & Lubinski, 2014). It is therefore understood that a big reason for the German Green Party's activeness and immediate influence is due to the ingrained culture of environmentalism that dates back before the Second World War.

Formation and Emergence of the German Green Party

In the late 1970's, several green political groups had formed in protest to the growth of German Nuclear Power plants. In 1979, many of these groups allied to form the Alternative Political Union, or the West Germany Green Party. It met in Karlsruhe in 1980 to officially become a federal party, *Die Grünen*.

As nuclear demand grew, there was also opposition to the generation of nuclear missiles in West Germany. This led to the Peace Movement, a movement dedicated to removing nuclear technology in Germany. It allowed the Greens to gain 5.6% of the vote in 1983 and enter the Parliament, since they heavily supported non-violence.

Within the party, there were two opposing groups, the Realists, who favored cooperation with the SPD and the Fundamentalists who opposed cooperation. The Realists had a greater influence in 1985 which led to the party forming a coalition with the SPD.

As the party emerged, environmental disasters accelerated its growth. After the Chernobyl nuclear accident, it gained 8.3% of the votes in the 1987 federal election.

The East Germans also formed a Green Party in 1989 that opposed the reunification of Germany. It joined with Alliance '90, a group of grassroots organizations, and gained representation in government. The West Germans, who cooperated with the SPD, were excluded, as they could no longer get 5% of the vote. The East and West Green Parties then merged in 1993 to form the Alliance '90/The Greens, the name they are still called today. It assumed power for the first time in 1998 as a coalition partner to the SPD, who won the election. Though many Greens were happy with their rise to power in 1998, others resented their coalition, as they had to support policies that they were against in principle.

Though one of the tenets of the Greens was nonviolence, they ended up supporting German military involvement in Kosovo and Serbia in 1999, and in Afghanistan in 2001. This caused a tense relationship among party members due to the divided opinions on this, as many members voted against military involvement. Despite the temporary divide in the party, it had another major success in 2002 when it won 8.6% of the vote, its highest percentage yet.

One of the party's setbacks was in 2005, when its primary leader, Joschka Fisher, retired from politics. At the same time, it lost popularity among young voters, who it relied on in the past for votes. The new generation of voters did not have the same concerns those from the 20th century did, so the Greens had to modernize their approach, especially since all major parties addressed environmental issues to some extent. In 2008, they elected Cem Özdemir and Claudia Roth as co-leaders. This was impactful and demonstrated their liberal ideals as Özdemir became the first-ever Turk to lead a German party. This led to The Greens winning 68 seats in the Parliament in the 2009 elections.

Environmental disasters again later boosted the support for the Green Party. An earthquake and tsunami in Japan in 2011 caused problems at nuclear plants which raised Green Party numbers at polls. It had a huge vote increase in Baden-Württtenberg. This was a big change, as the state was controlled by the Christian Democratic Union from 1953 until that point.

The party has continued to stay influential, winning 20.5% of votes cast in the 2019 European Election and subsequently becoming the second largest party in Europe (Conradt).

Methodology

Historical data were collected from the official website of the Parliament Election, where the election results of every German election were found. Data was collected from the 1980 election onwards, as that is when the Greens first participated. The percentage of first votes, the percentage of second votes, and the number of seats that went to the Greens were all noted (Bundeswahlleiter). In addition, data regarding the votes won by the United States Green Party since 1996 were collected. Finally, the carbon emissions by each country since 1970 were collected. This data collection approach provided a quantitative way to measure the respective Green Party success and the environmental success of each country.

For each of the six categories of data, the following steps were taken:
1. Compile the data
2. Create a line chart with the data
3. Calculate the correlation coefficient of the data

Using this process, it was possible to track a country or party's progress in the observed areas.

Results

Influence of the American Green Party

Historical data were collected from the official website of the Parliament Election, where the election results of every German election were found. Data was collected from the 1980 election onwards, as that is when the Greens first participated. The percentage of first votes, the percentage of second votes, and the number of seats that went to the Greens were all noted (Bundeswahlleiter, 2021).

The German Greens' First Vote Wins

| Year	First Votes
2017	8%
2013	7.30%
2009	9.20%
2005	5.40%
2002	5.60%
1998	5.00%
1994	6.50%
1990	4.40%
1987	7.00%
1983	4.10%
1980	1.90%

GP First Votes vs. Year
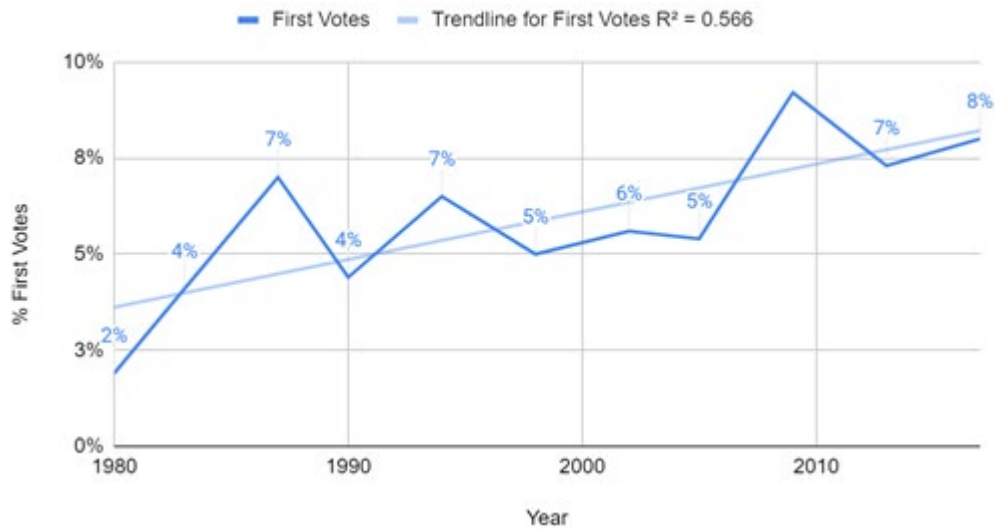
The above table and graph show the percentage of first votes won by the Green Party in each Federal Election. Citizens cast first votes for the head of their voting district, or *Wahlkreis*. The winning candidate of a district's first vote gets a direct mandate for the party's representation in the Bundestag. The Greens had their highest first vote win percentage of 9.20% in 2009. This is 7.30% higher than their lowest first vote win percentage of 1.90% in 1980. Despite some decreases in first vote win percentage, the percentage increases over time. The correlation coefficient between the year and the percentage of first votes won was 0.75.

The German Greens' Second Vote Wins

Year	Second Votes
2017	8.90%
2013	8.40%
2009	10.70%
2005	8.10%
2002	8.60%
1998	6.70%
1994	7.30%
1990	3.80%
1987	8.30%
1983	5.60%
1980	1.50%

## GP Second Votes vs Year
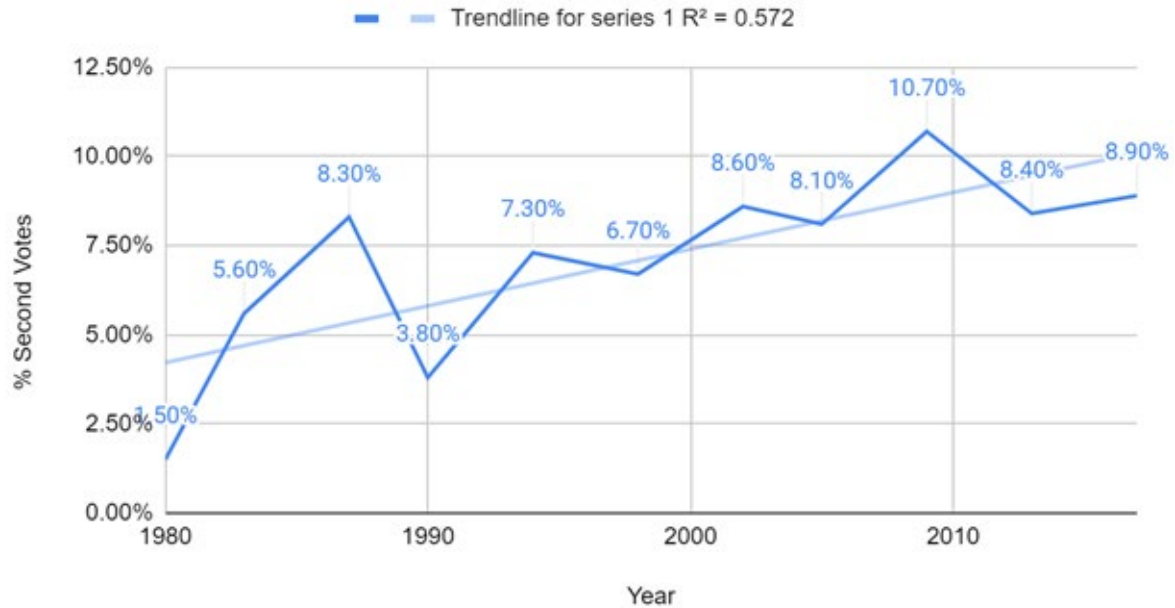
The above table and graph show the percentage of second votes won by the Green Party in each Federal Election. In the second vote, citizens vote for a party as a whole, and the proportion of votes a party gets correlates to the amount of seats it gets in the Bundestag, or parliament. The Greens had their highest second vote win percentage of 10.70% in 2009. They had their lowest second vote win percentage of 1.50% in 1980. The party shows a strong increase in second vote win percentage over time. The correlation coefficient between year and percentage of second votes won is 0.76.

The German Greens' Seats Won in Parliament

| Year	Number of Seats
2017	67
2013	63
2009	68
2005	51
2002	55
1998	47
1994	49
1990	0
1987	44
1983	28
1980	0

GP Number of Seats in Bundestag vs Year
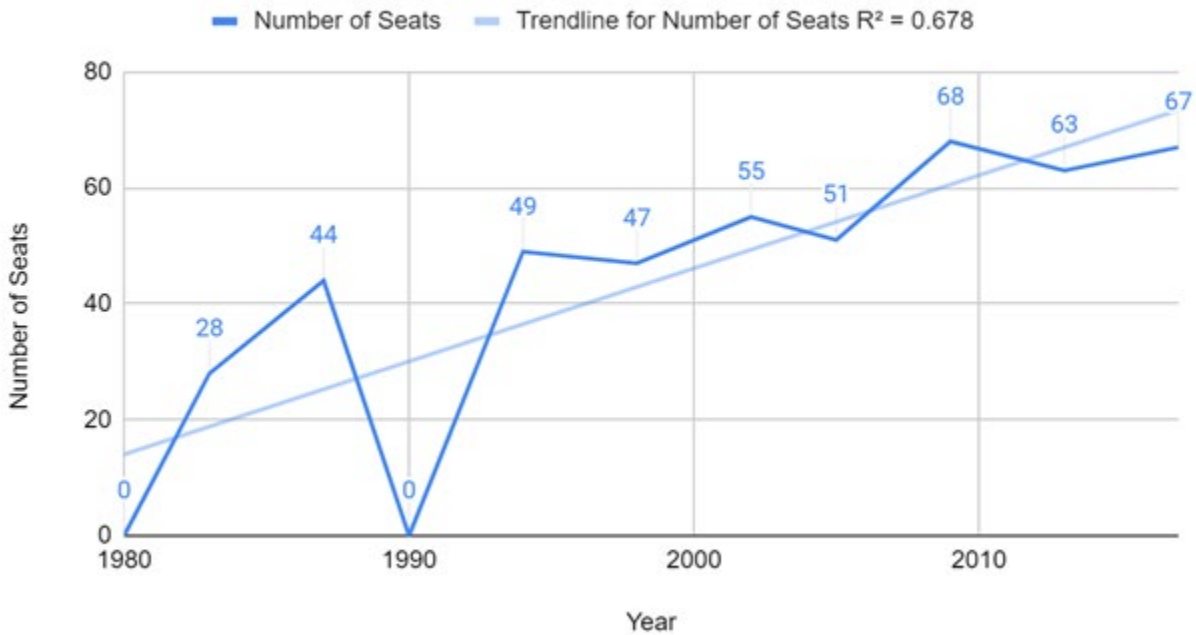
The above graph and table show the number of seats in the Bundestag won by The Greens after every election since 1980. The Greens won 68 seats in 2009, which is the highest they ever won. In their first year in contention, they won zero seats. The Greens clearly win more seats as time progresses. The correlation coefficient between Year and Number of Seats won is 0.82.

Influence of the American Green Party

To compare to the German Greens, data about percentage of popular votes won by the American Green Party in each federal election were compiled ("Election and Voting Information")

Year	Percent of Popular Vote
1996	0.70%
2000	2.70%
2004	0.10%
2008	0.10%
2012	0.40%
2016	1.10%
2020	0.30%

## Percent of Popular Vote Won vs Year
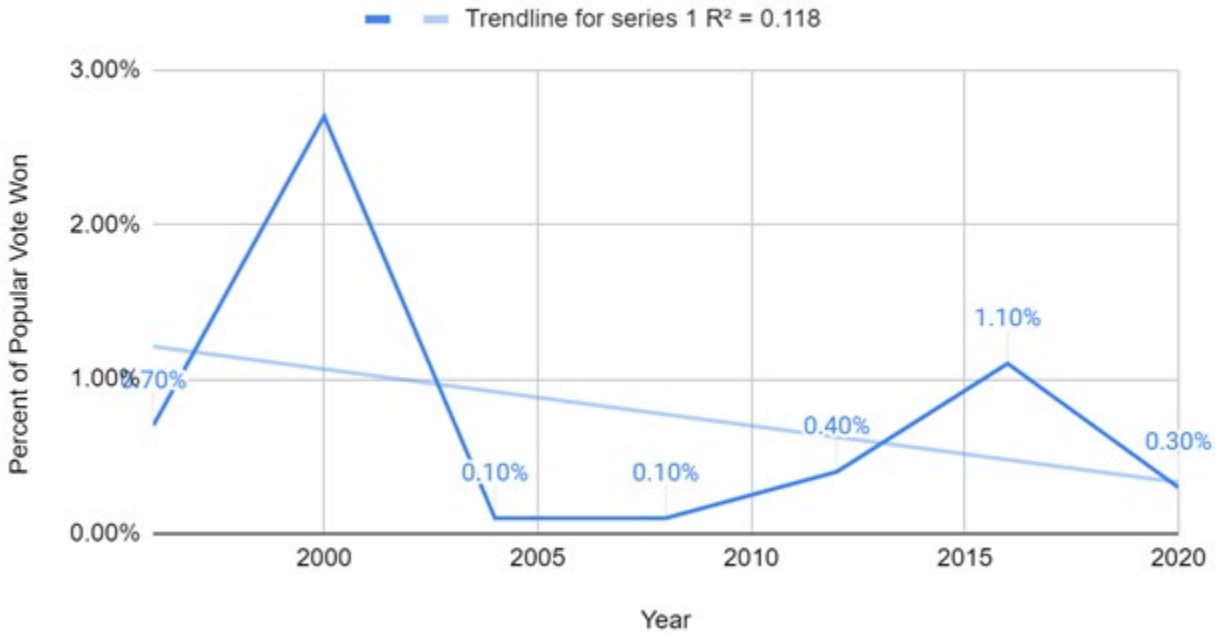
The election results of the American Green Party since its creation were also researched and noted. The party's percentage of popular votes peaked in 2000, when it won 2.70% of the votes. The party's success generally decreased as time progressed, and they only won 0.3% of the popular vote in 2020.

## Carbon Dioxide Emissions by Germany in the last 40 years

The CO2 emission data of Germany from 1971 to 2016 was also collected ("Germany CO2 Emissions").
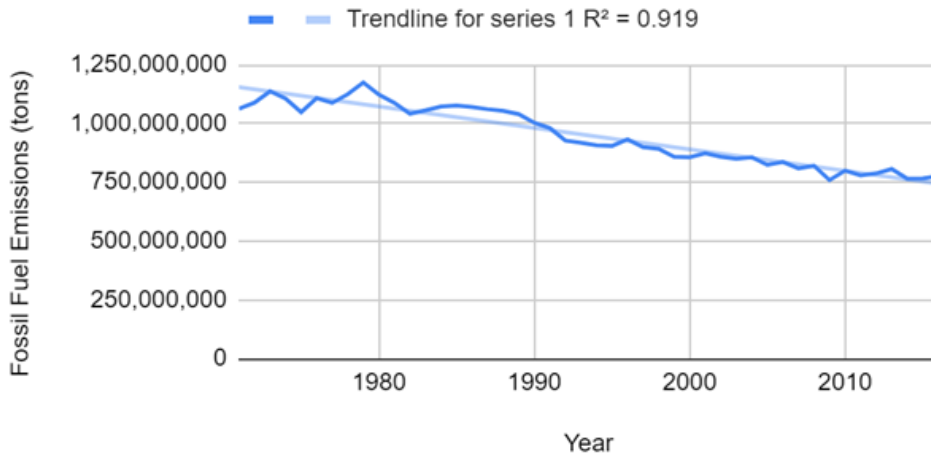
There is a clear decline in fossil fuel emissions through the years. The correlation coefficient is -0.958. Germany hit its lowest yearly fossil fuel emission total of 759 million tons in 2009. Its fossil fuel emissions peaked at 1.174 billion tons in 1979.

Share of World's CO2 emissions vs. Year
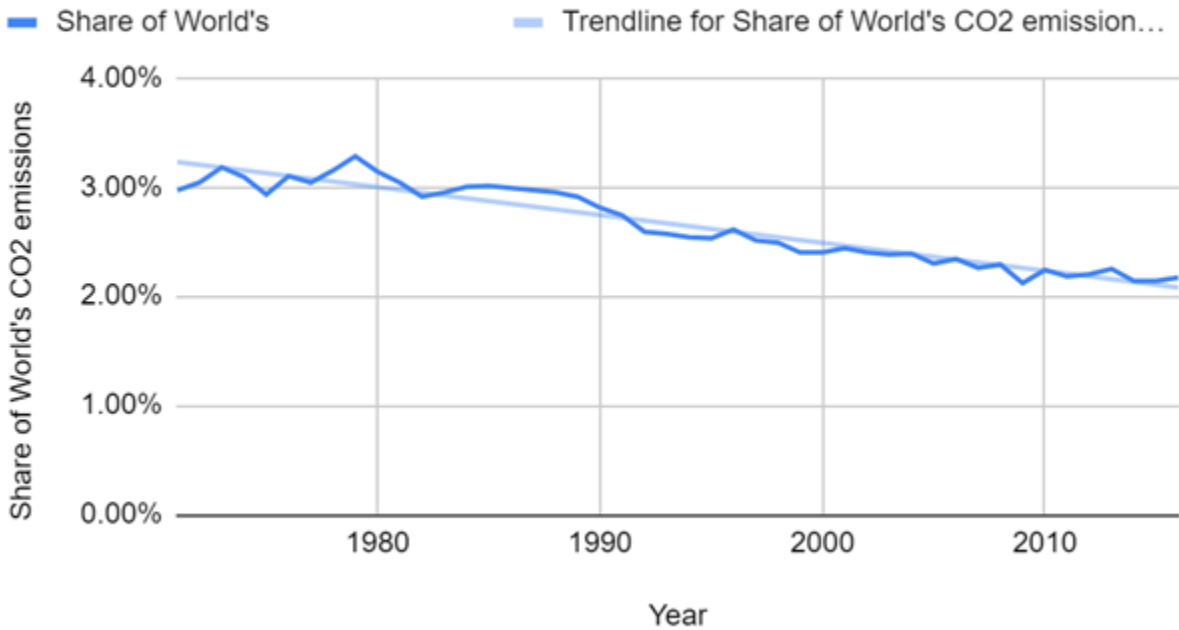
- There is also a clear decline in the percent of world carbon emissions that are attributed to Germany. In 1971, Germany's share of world carbon emissions was 2.97%. This number dropped to 2.17% by 2016. The correlation coefficient of this trend is -0.958.

CO2 Emissions per Capita vs Year
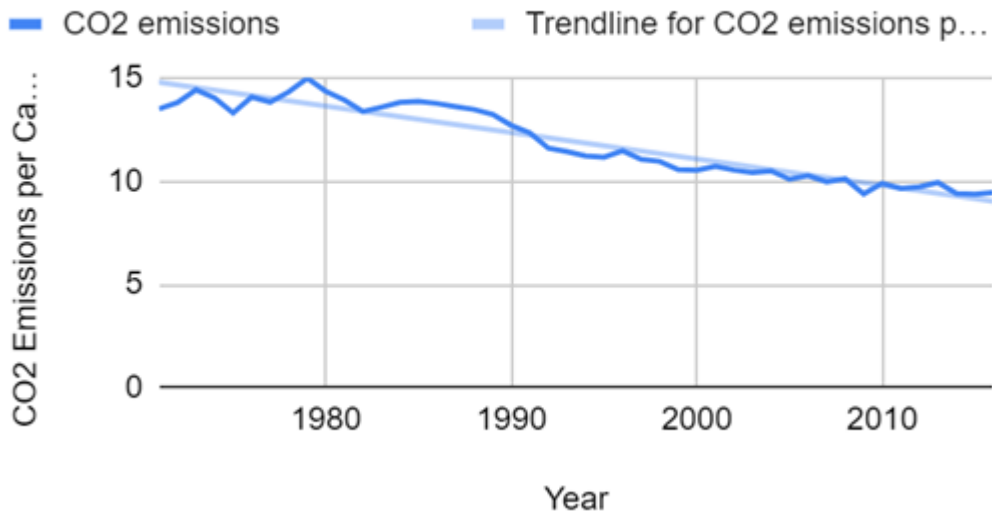
In addition, the CO2 emissions per capita in Germany also drastically decreased since 1971. In 1971, this number was about 13.49 tons. It was reduced to 9.44 tons by 2016. The correlation coefficient for the decrease in CO2 emissions per capita by year is 0.952.

Carbon Dioxide Emissions by the US in the last 40 years

To compare to that of Germany, the CO2 emission statistics of the US from 1971 to 2016 were also collected ("US CO2 Emissions").
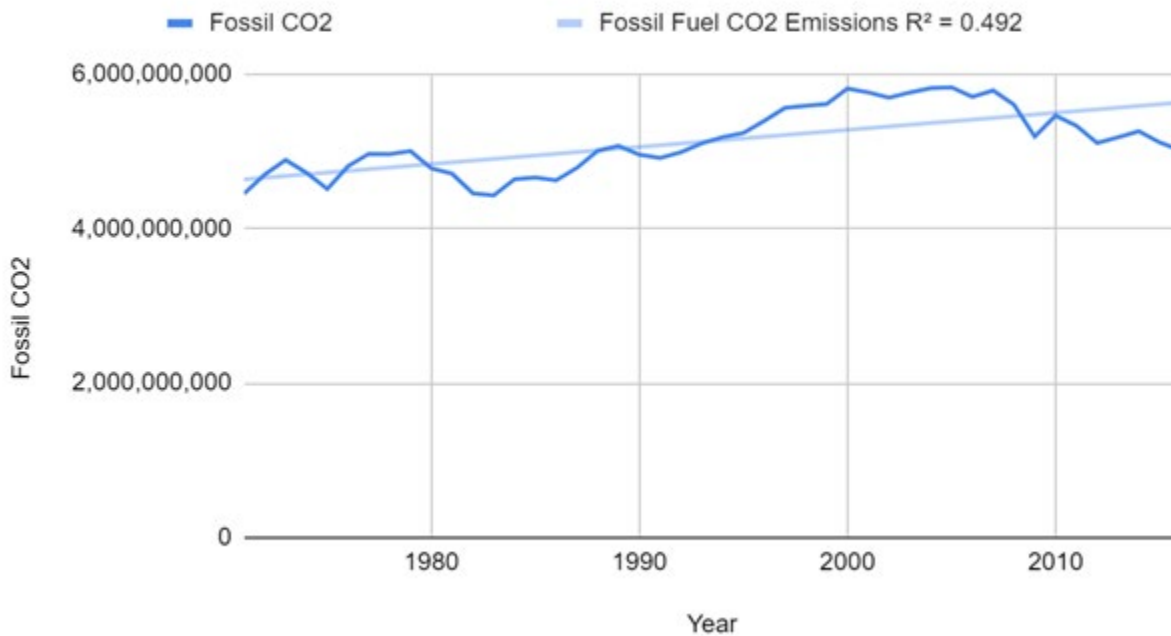

There is an upward trendline in the data. The correlation coefficient is 0.701. The US hit its highest yearly fossil fuel emission total of 5.8 billion tons in 2005. Its low of 4.4 billion tons was in 1971.

Share of World's CO2 Emissions vs Year in US
CO2 emissions vs. Year
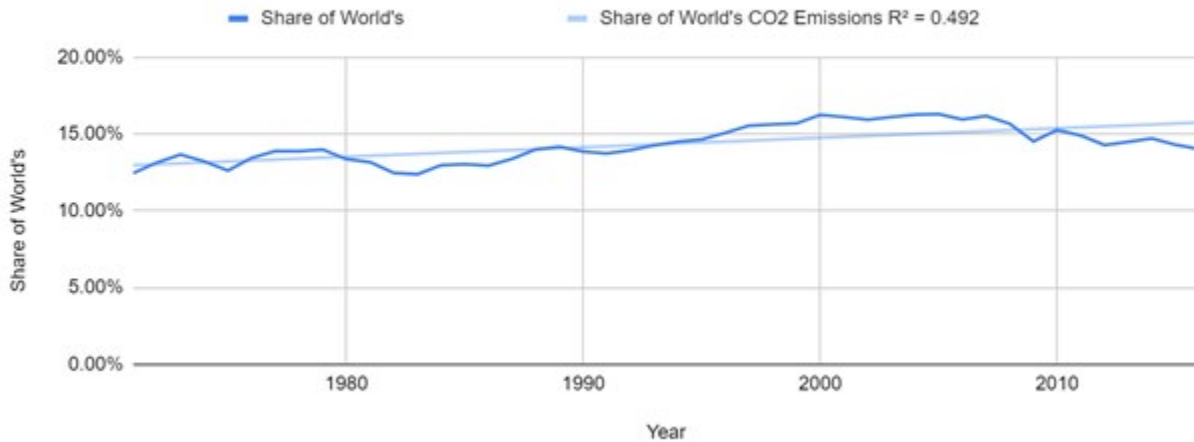
Here is the graph of the United States' share of world CO2 emissions. Its share of world CO2 emissions has increased since 1971 with a correlation coefficient of 0.701. It's share peaked at 16.30% in 2005. It hit its low of 12.45% in 1971.

CO2 Emissions per Capita vs Year
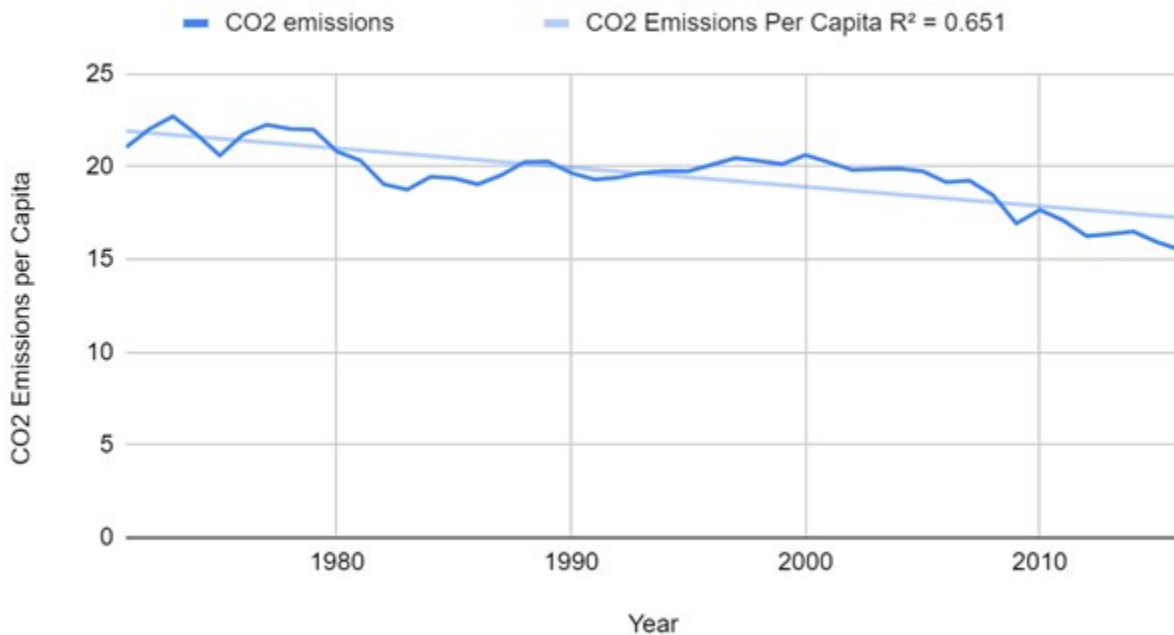
This graph shows the CO2 emissions per person every year from 1971 to 2016. The CO2 emissions per capita decreases over time with a correlation coefficient of 0.806.

Discussion

Germany's percent of votes won each election has a strong increasing correlation value, while the United States' percent of popular votes won each election has a strong decreasing correlation value.

Germany's share of world CO2 emissions has been continuously decreasing for the last 40 years. From this, we can understand that Germany and its citizens implement successful environmental solutions faster than other countries, which allows them to lower their share of CO2 emissions. The growing level of concern German citizens have for the environment has increased the influence of the Green Party, allowing its number of first and second votes to increase over time during federal elections. However, the US Green Party's influence has decreased over the years, as shown by its overall decreasing percentage of popular votes won throughout the years.

The history of environmentalism that dates back to before World War 2 and during the Nazi regime has rooted sustainability into German culture. This has caused citizens to prioritize the environment and therefore show more support for environmental organizations such as the German Greens. The Greens also make efforts through outreach, advertisements, and hands-on interaction with citizens and strengthen their environmental consciousness, causing a mutual interaction between the Greens and the citizens. While US citizens are showing signs of greater environmental consciousness through noticeable measures such as fewer CO2 emissions per capita, the growing population of the US makes it hard to contain its carbon and other ecological footprints.

The Greens also aligned their non-environmental policies with the growing German sentiments post-Holocaust and World War 2. During the German environmental movement in the 1960's, many of the activists strongly believed in decentralization, anti-fascism, and liberal left-wing ideals. The Greens strongly support LGBTQ rights and a decentralized government, while fighting against xenophobia.

Finally, the features of Germany's political system have advantaged the German Greens over Green Parties from other countries. The opportunity to form coalitions with other parties allowed the German Greens to ally with big-name parties throughout the years and subsequently gain power and popularity in various states. These parties include the SPD, CDU, and Die Linke.

Conclusion

The German Greens are a fascinating part of the German culture and political system for their sustainability-oriented and left-wing policies, and for their success compared to their counterparts from other countries. While they are currently not as popular as a few other German parties, mainly the SPD and the CDU, they have shown potential and growth since their formation. They have displayed success in recent elections and polls and have the potential to be the main power in Germany in the coming years due to the growing intensity of environmental problems, which is likely to further increase the German citizens' concern for the planet It is important to understand the circumstances and actions that caused the German Greens' successes to compare them to other countries such as the US.

Limitations

While this study compared the German Green Party to the United States Green Party, several other countries have a Green Party as well. These respective Green Parties could be compared to each other in terms of their successes, enacted policies, and ideals. In addition, the specific poll data of all of these parties should be compiled to get more continuous data on their success.

Acknowledgements

References

1. (www.dw.com), D. W. (2021, April 19). *What do the German Greens want if they GAIN POWER?: DW: 19.04.2021*. DW.COM. https://www.dw.com/en/what-do-the-german-greens-want-if-they-gain-power/a-57248907

2. Bandow, D. (2021, May 18). *Germany's Greens Plan a Tough Foreign Policy*. cato.org. https://www.cato.org/commentary/germanys-greens-plan-tough-foreign-policy.

3. Brüggemeier, F.-J. (n.d.). *How green were the Nazis?* Google Books. https://books.google.com/books?hl=en&lr=&id=erLXrJhsk5gC&oi=fnd&pg=PR5&dq=environmental%2Bhistory%2Bgreen%2Bnazis&ots=U_5XjSQ070&sig=IcsObjMMEY6ee8ekd5YFA60PZwg#v=onepage&q=environmental%20history%20green%20nazis&f=false.

4. Bundeswahlleiter, D. (2021, August 31). *Der BUNDESWAHLLEITER - Der Bundeswahlleiter*. Der Bundeswahlleiter - Der Bundeswahlleiter. https://www.bundeswahlleiter.de/.

5. Columbia University. (n.d.). *Nazi "Ecology"*. Nazi "ecology". http://www.columbia.edu/~lnp3/mydocs/ecology/nazi_ecology.htm.

6. Conradt, D. P. (n.d.). *Green party of Germany*. Encyclopædia Britannica. https://www.britannica.com/topic/Green-Party-of-Germany.

7. *Election and voting information*. FEC.gov. (n.d.). https://www.fec.gov/introduction-campaign-finance/election-and-voting-information/.

8. *Germany CO2 emissions*. Worldometer. (n.d.). https://www.worldometers.info/co2-emissions/germany-co2-emissions/.

9. Jones, G. G., & Lubinski, C. (2014, January 13). *Historical origins of ENVIRONMENT sustainability in the German chemical Industry, 1950s-1980s*. Harvard Business School working paper series # 14-018. http://nrs.harvard.edu/urn-3:HUL.InstRepos:11508212.

10. Ritchie, H., & Roser, M. (2020, May 11). *Germany: CO2 country profile*. Our World in Data. https://ourworldindata.org/co2/country/germany.

11. *United States co2 emissions*. Worldometer. (n.d.). https://www.worldometers.info/co2-emissions/us-co2-emissions/.