

## ÚSTAV VÝZKUMU GLOBÁLNÍ ZMĚNY, AV ČR v. v. i.

## Discourses of climate change in the Czech Presidential election 2023

MASTER'S THESIS

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## CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Environmental Sciences

# **DIPLOMA THESIS ASSIGNMENT**

## Bc. Viktorie Malá

Applied Ecology

Thesis title

Discourses of climate change in the Czech Presidential election 2023

#### **Objectives of thesis**

The aim of this thesis is to analyse discourse about climate change and topics closely related to it of the main presidential candidates.

#### Methodology

Climate discourses are gathered for instance from interviews or official social media accounts of the main candidates. Gathered qualitative data are divided into categories based on qualitative discourse data analysis. After that, their discourses are compared in wider contexts.

#### The proposed extent of the thesis

40 pages

#### Keywords

Y OF LIFE SCIENCES climate change, green deal, presidential election, climate discourse

#### **Recommended information sources**

Claeys, G., Tagliapietra, S., & Zachmann, G. (2019). How to make the European Green Deal work. Jensen, L. (2021). Climate action in Czechia. European Parliamentary Research Service. McKenna, B., Myers, M. D., & Newman, M. (2017). Social media in qualitative research: Challenges and recommendations.



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## Declaration

I declare that I developed diploma/final thesis on the topic: Discourses of climate change in the Czech Presidential election 2023 independently and I cited all the information sources that I used in the work and which I also listed at the end of the work in the list of used information sources.

I am aware that my diploma/final thesis is fully covered by Act No. 121/2000 Coll., on copyright, on rights related to copyright and on the amendment of certain laws, as amended, especially the provisions of § 35 par. 3 of this Act, i.e., on the use of this work.

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With my signature, I also declare that the electronic version of the work is identical to the printed version and that the data provided in the work has been handled in connection with the GDPR.

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#### Abstract

The aim of this work is to understand the likely direction the position the Czech president will take on climate change in the coming presidential term. The research question is: How the presidential candidates approach climate change and topics closely related to it? The statements about climate change and those topics were gathered from the three main candidates - Petr Pavel, Andrej Babiš and Danuše Nerudová. Time frame for data collection was set from the beginning of October 2022 till the end of January 2023. Statements were collected from broadcast interviews, newspaper articles and the candidates' official Facebook accounts (social media). Additional effort was to classify candidates based on the typology of climate delay discourses and analyse their approach to Green Deal. Each statement was with relevant details written down and later assigned into categories and subcategories. Nerudová and Pavel put the greatest emphasis on the issue of drought in Czech countryside and inability of soil to retain water. Based on the climate delay discourses typology, Babiš came out as a typical 'Free rider', which is characterized by arguing against pro climate actions and redirecting responsibility to others. Nerudová sees transition to a green economy as an opportunity for innovations and growth of the whole society. Pavel suggests concrete steps like planting greenery on the roofs of warehouses and implementation of photovoltaic systems on public buildings and apartment blocks. This work reflects not only the approaches of each candidate, but also the Czech society and its position on climate change. The work shows the possible direction of the Czech Republic regards to climate change while reflecting on its present and past.

Keywords: climate change, green deal, presidential election, climate discourse

#### Abstrakt

Cílem této práce je porozumět pravděpodobnému směru, kterým se bude ubírat postoj českého prezidenta ke změně klimatu v nadcházejícím prezidentském období. Výzkumná otázka zní: Jak se kandidáti na prezidenta staví ke změně klimatu a tématům s ní úzce souvisejícím? Výroky o klimatické změně a patřičných tématech byly sbírány od tří hlavních kandidátů – Petra Pavla, Andreje Babiše a Danuše Nerudové. Sběr dat proběhl od začátku října roku 2022 do konce ledna roku 2023. Výroky byly nasbírány z odvysílaných rozhovorů, článků v tisku a oficiálních účtů kandidátů na Facebooku (sociální média). Další snahou byla klasifikace kandidátů na základě typologie rozprav o klimatickém zpoždění a zanalyzování jejich přístupu k Zelené dohodě (Green Deal). Každý výrok byl s náležitými detaily zapsán a později zařazen do kategorií a podkategorií. Nerudová a Pavel dávali největší důraz na problematiku sucha v české krajině a neschopnost půdy zadržet vodu. Na základě typologie rozprav o klimatickém zpoždění se Babiš ukázal být typickým typem "Free rider', který je charakterizován argumentováním proti akcím na záchranu klimatu a přesměrovává odpovědnost na druhé. Nerudová vidí přechod na zelenou ekonomiku jako příležitost pro inovace a růst celé společnosti. Pavel navrhuje konkrétní kroky jako ozelenění střech velkoskladů a realizaci fotovoltaických systémů na veřejných budovách a panelových domech. Tato práce nereflektuje pouze přístupy jednotlivých kandidátů, ale také českou společnost jako takovou a její postoj ke klimatické změně. Tato práce ukazuje možný směr České republiky, týkající se změny klimatu, se současným reflektováním její přítomnosti a minulosti.

**Klíčová slova**: klimatická změna, zelená dohoda, prezidentská volba, rozprava o klimatu

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## List of Abbreviations

ANO	ANO 2011
CCS	Carbon Capture and Storage
EIC	European Innovation Council
ETS	EU Emission Trading Scheme
EU	European Union
GD	Green Deal
GDP	Gross Domestic Product
GHG	Greenhouse Gas
IET	International Emissions Trading
IPCC	Intergovernmental Panel on Climate Change
NATO	North Atlantic Treaty Organization
PV	Photovoltaic
UN	United Nations
US	Unites States

#### 1. Introduction

The president of the Czech Republic based on his rights and duties has a lot of opportunities to represent his country and its targets on international level. Meetings, conferences and other occasions are great opportunities for it. President in the Czech Republic can veto the law, except for constitutional law. This way the president can slow down implementation of laws. The election for new presidential period started in the beginning of the year 2023. One of the most important topics of 21<sup>st</sup> century is climate change. Humans produce large amounts of greenhouse gas (GHG) emissions, especially carbon dioxide (CO<sub>2</sub>), by burning fossil fuels. GHGs keep heat in the atmosphere, warm the planet and influence weather conditions in the long term. Our current response to it affects our near future. How and if the candidates talk about it is important for the international understanding of the Czech Republic as highly developed western society that considers these issues important. The fact that it is discussed in the internal affairs of the Czech Republic is important for the thinking of other European powers about the Czech Republic as equal.

This thesis looks at how the presidential candidates are framing the topic of climate change, including what the problem is and how it should be addressed. Words are defined relative to frames. Under the right conditions, words can be chosen to activate desired frames. This is what effective communicators do (Lakoff, 2010). Framing is about selecting some key aspects of the perceived reality and making them more salient in the process of communication (Entman, 1993). There are different framings of climate change, some of them can be defined by different polluting sectors, emphasis of economic costs or benefits, ideological conflicts, emphasis or downplay of scientific uncertainty and many more (Stecula & Merkley, 2019).

The framework according to which candidates' statements are evaluated in this thesis, is created by Lamb et al. (2020) and is named Discourses of climate delay. Together there are 12 discourses which are especially typical for politicians. These discourses do not deny the existence of climate change but justify inaction or inadequate efforts. The 12 discourses can be divided into four categories based on certain similarity: (1) redirect responsibility; (2) emphasize the downsides; (3) push non-transformative solutions and (4) surrender to climate change.

People can talk about climate change from very different positions. They can talk about the topic on many different levels, including global, European and national. They can reflect on the past, use the listener's imagination, include allusions, similes and many more. Discourses typically have its own purpose. In the case of politicians in a democratic system, it is usually about citizen's votes. There are likely implications and willingness to act on what voters hear in a variety of ways — from voting for environmentally friendly candidates and parties to personal initiative and political activism (Stecula & Merkley, 2019).

The research question set for this thesis is: How the presidential candidates approach climate change and topics closely related to it? Specifically, the aspiration is to find answers to three questions/objectives:

- (1) Is the issue of climate change important to the candidates and why?
- (2) Which typology of climate delay discourses do candidates best fit into?
- (3) How candidates talk about Green Deal (GD)?

The three candidates with the most supporters for the next presidential election are Petr Pavel, Andrej Babiš and Danuše Nerudová (respectively) (Median ©2023). Babiš is the only one from the three candidates who has been visible on the Czech political scene for a long time. He is a Czech politician and businessman, former Prime Minister of the Czech Republic and former Minister of Finance. Nerudová is an economist and former university rector. Pavel was chief of the general staff of the Czech Army and served as Chairman of the NATO (North Atlantic Treaty Organization) Military Committee (Kabourková, 2023).

Danuše Nerudová started her presidential campaign from the three candidates as the first one. In the second half of year 2022 she, her team and volunteers were already very active in promoting of her. Andrej Babiš announced his candidacy as the last one of the three candidates. He announced his decision on the official website of ANO 2011 (ANO) and thanked for support of his political party. During his campaign he repeatedly changed his statement if he is or is not a candidate of ANO, in which he is the chairman. Nerudová and Pavel were not proposed by any political party. They complied the limit and gathered at least 50 000 signatures of Czech citizens. Both Nerudová and Pavel gathered a very similar number of signatures, around 80 000 (Sochorová, 2022).

During their campaigns have been collected data about their opinions and outlook for climate change and topics closely related to it, for example transport and energy. Data contains speeches of the three candidates, gathered mainly from public broadcast interviews and their official Facebook accounts. Official accounts of politicians on social media platforms are an increasingly common means of campaign speeches. Now when social media are becoming more and more popular, they are a strong competitor to current news media as a source of information. Social media and its specifications are described more in subsection 4.7 of the thesis.

The other candidates from this presidential election were not included in this research because of the predicted low chances of them being elected. It was settled that in case of some other significant candidate, he/she would have been added to the dataset, but no one like this appears during the campaign.

The way the Czech president discusses climate change is important during a period of key policy setting to address climate change in the European Union (EU). President can help to set public discourse, bring topics to public discussion and to some extent influence public opinion. During the previous terms of climate deniers at the head of the country (Klaus & Zeman), the topic of climate change was not discussed. It is important to have a president that does not deny climate change and on the contrary, is aware of its importance and is willing to talk about it.

President of the European commission Ursula von der Leyen has made climate change a top priority, promising to propose a European GD that would make Europe climate neutral by year 2050 (Claeys et al., 2019). Andrej Babiš as a prime minister of Czech Republic in year 2019 signed GD and Czech Republic as a part of the EU engaged to obey by this agreement (Ministry of the Environment of the Czech Republic ©2020). The GD could be better explained, also by the president, because many people do not know what it contains. Many people have an aversion just by those two words (green deal) because in media it is presented almost only negatively. Environmental topics are overall less discussed in public debates and in the Czech media, which is a big contrast to public debates in Western European countries. Often some environmental measures are presented just like something that 'EU wants from us'. President in the Czech Republic can veto the law that try to implement GD to Czech legislation. This way he/she can slow down implementation of laws fighting climate change.

The Climate Protection policy contains goals and measures to reduce GHG emissions. This strategic document focuses on the period from year 2017 to 2030, with a view to year 2050, and should thus contribute to the long-term transition to a sustainable low-emission economy of the Czech Republic. The approach to the issue can be divided into two parts, reducing anthropogenic GHG (so-called

mitigation) and adapting to the negative effects of climate change (so-called adaptation) (Ministry of the Environment of the Czech Republic ©2017). The number one contributor to GHG emissions in the Czech Republic is energy sector, followed by sectors of transportation and industry (Ritchie & Roser, 2020). The energy sector is also key within the GD, and part 4.4.1 of the thesis describes energy in more detail. Agriculture and landscape are frequently discussed topics in the context of climate change, at least in the Czech Republic. Agricultural land and forests cover more than 70 % of the territory of the Czech Republic and naturally absorb a large amount of carbon and prevent it from escaping into the atmosphere. For this reason, they are very important for climate protection. Agriculture, on the other hand, is also a source of GHG emissions (Ministry of the Environment of the Czech Republic ©2017). A key role is played by methane (CH<sub>4</sub>), which is produced during animal production and has a greenhouse effect many times greater than CO<sub>2</sub> (Rambousek & Vizi, 2021). Reducing GHG emissions from agriculture is connected to ecological land management and modernization of technology (Ministry of the Environment of the Czech Republic ©2017). More about agriculture and forestry in the conditions of the Czech Republic in subsection 4.4.2.

Petr Pavel as the winner of presidential election in year 2023, replaced Miloš Zeman, which was for ten years the head of the country. Zeman didn't talk much about climate change, and when he did, he denied that climate change is happening. This thesis reflects important aspects of the Czech political scene over the past few decades and its impact on current Czech society. The steps taken up to now by the Czech Republic on the issue of climate change are not sufficient. The consequences of inaction on climate change are described in more detail in the subsection 4.1.

### 2. Objectives of work

The aim of this work is to understand the likely direction the position the Czech president will take on climate change in the coming presidential term. The research question is: How the presidential candidates approach climate change and topics closely related to it? This research question is going to be answered through qualitative discourse data analysis. It is the most suitable qualitative data analysis method for understanding someone's expression in a different social context of some topic (Dye, 2022). The collected data will be categorized according to what they relate to and possibly assigned to one of the 12 typologies of approaches concerning the

delayed response to climate change. The contribution of this thesis should be a clearer outline of the direction of the Czech Republic and its policy on climate change issues.

## 3. Methodology

The basis of this thesis was a gathering of statements (data) from presidential candidates. These were collected from interviews (written form or broadcast) and from their official Facebook accounts. The effort was to collect the largest possible number of statements (dataset) from the three candidates regarding climate change and topics that, based on their context, are crucial in the fight against climate change. These topics were energy (especially its sources), transport, industry, landscape management (including forestry), greenery in cities and 'green' buildings. Statements were collected only from the candidates themselves; other people's reports and analyses were not included. Each statement was credited with the candidate who said so. Time frame for data collection was settled from the 1<sup>st</sup> of October 2022 till the 28<sup>th</sup> of January 2023. Due to the nature of gathered data, qualitative discourse data analysis was chosen for data processing.

Every statement was then written down to MAXQDA software program. MAXQDA was chosen because it is a suitable program for working with qualitative data. Four categories were created, and statements were sorted into them based on their content. The first category dealt with statements that included the importance of climate change and the reasons why we should do something about it. The second category, statements were collected that would fit into typologies based on discourses of climate delay. In the third category, statements related to the research question but did not fit into any of the previous categories. These statements are helpful to complete the overall view of the candidates regarding the issue of climate change. This last category was named "Changes" as it is mostly about the changes and steps that the candidates would make.

Brief title of each category:

- (1) Importance of climate change
- (2) Discourses of climate delay
- (3) GD
- (4) Changes

Categories (1), (2) and (3) are three defined objectives, which try to answer the following questions:

- (1) Is the issue of climate change important to the candidates and why?
- (2) Which typology of climate delay discourses do candidates best fit into?
- (3) How candidates talk about GD?

Categories (1) and (2) have subcategories. In category (1), if the candidate emphasized a problem that he/she considers important and is a consequence of climate change speed up by human activity, a separate subcategory was created for this issue. A total of four subcategories were created – drought, air pollution, extreme temperatures and soil degradation. Each subcategory from category (2) represented one type out of a total of 12 discourses of climate delay. Overall, three types were recognized – the 'free rider' excuse, all talk little action and individualism.

A total of 24 statements were collected from all three candidates that addressed research question of this thesis. A statement can be a sentence, more sentences or a full speech. Ten statements were gathered from Mrs. Nerudová, nine from Mr. Pavel and five from Mr. Babiš. Some statements belonged to more than one category/subcategory and therefore one statement can be assigned to more than one category/subcategory. Statements were collected from 16 different sources, including newspapers (also online versions), broadcasts and social networking platforms. Only primary source statements were gathered. Description of statements and already analysed statements were not included. This was done for reasons of authenticity and an effort to use as much raw data as possible for the analysis.

More data would be needed for a more accurate and in-depth analysis. The interviewers overall did not ask many questions that would be related to the research question of this thesis and the candidates did not speak about the issue of climate change often by themselves. Danuše Nerudová and Petr Pavel attended almost every interview they were invited to. On the other side Andrej Babiš declined plenty of interviews. He sometimes argued that it is because people know him, so it is not

needed to take part in interviews and introduce himself. All three main candidates were very active on social media platforms, mainly Twitter and Facebook. No data suitable for this thesis was found on Twitter. It is suitable to put some statements within this thesis into a bigger context and reflect on the past along with a fact check.

The following table describes full statements of the candidates, their categories, subcategories and additional information. (B) in the table stands for Babiš, (N) for Nerudová and (P) for Pavel. The candidates' statements are marked based on their statement code (from B1 to P9).

Code	Statement	Category or categories	Subcategory or subcategories	On what occasion was the statement made?	Date	Reference
B1	"Europe has 8 % ( <i>author's note: of global</i> ) emissions and is doing everything to destroy its industry and everyone else is laughing at us."	Discourses of climate delay	The 'Free rider' excuse	Interview with Babiš on the YouTube account of Xaver Live	2022.12.11	YouTube, 2022: Xaver s hostem: Andrej Babiš. Xaver Live Account (online) [cited 2022.12.27], Retrieved from < <u>https://www.youtube.com/watch?</u> v=Y SzNg5o7H <u>M&amp;list=WL&amp;index</u> x=19>.
B2	"The whole GD leads to the destruction of European industry."	Discourses of climate delay & GD	The 'Free rider' excuse	Interview with Babiš on the YouTube	No data	YouTube, 2023. (the video has been deleted from the platform)
В3	"After Putin's aggression, the entire GD needs to be reassessed. GD threatens Europe and industry."	GD		Debate with Babiš and Pavel organised by Czech public radio broadcasting (Český rozhlas), uploaded on their official YouTube account	2023.01.27	YouTube, 2023: Prezidentské volby 2023: Duel. Czech public radio broadcasting (Český rozhlas) Account (online) [cited 2023.02.12], Retrieved from < <u>https://www.you</u> <u>ube.com/watch?</u> <u>v=mJseCthGBT</u> <u>M&gt;.</u>
В4	"If I were the president, I would try to stop the government in GD."	Changes & GD		Debate with Babiš and Pavel organised by Czech public television (Česká televize), uploaded on their official website	2023.01.22	Czech public television (Česká televize), 2023: Prezidentský duel (online) [cited 2023.01.25], Retrieved from < <u>https://www.ces</u> <u>katelevize.cz/por</u> <u>ady/1549667547</u> <u>2-prezidentske- volby/223411033</u> <u>250122/</u> >.
В5	"We have global warming, that is clear. Emissions should be reduced, the problem is that only Europe is doing so, which only has 8 % of emissions, so the whole world should be doing it."	Changes		A recording of Babiš visiting an elementary school, organised by commercial television Prima	No data	Official website of Czech commercial television Prima, 2022. (the video has been deleted from their website)

N1	"I understand young people's climate depression. I think students are doing exactly what their task is and that is activism. I think we could learn a lot from the younger generation. They think about how to communicate issues to society and they think comprehensively."	Changes		Interview with Nerudová on the YouTube account of podcast Insider	Uploaded 2022.12.09	YouTube, 2022: Insider #130 – Danuše Nerudová (CELÝ DÍL). Insider Account (online) [cited 2022.12.27], Retrieved from < <u>https://www.youtub</u> e.com/watch?v=8B <u>WISpp8Dfk</u> >.
N2	"I have been opening this topic ( <i>author's note: climate change</i> ) for 2 or 3 years. We missed the opportunity to act on climate change. Climate change affects people living in rural areas the most. I hope that we will not have discussions about whether or not there is climate change and we just adapt to that change."	Discourses of climate delay	All talk, little action	Interview with Nerudová within podcast "Ptám se já" which is managed by Czech Internet portal Seznam, uploaded on official website of Seznam	2022.11.09	Czech internet portal Seznam, 2022: Vida slibila dešiník proti drahotě. Nechala ale lidi zmoknout, říká Nerudová. Podcast. Ptám se já" (online) (cited 2023.01.13), Retrieved from < <u>https://podcast/bita</u> <u>mset-od-ledna- priit-se-socialnim- tarifem-rika- ekonomka- nerudova-148812&gt;.</u>
N3	"Our response to current climate change will affect the lives of generations to come. We are perhaps the last ones who can stop this change. I often talk about it with people in the regions today. The impact of changes directly affects us all today and affects the quality of our lives. People perceive the water level in their wells falling, the bark beetle eating the until recently rich forest. The drying landscape in the villages and bad air in the cities. I open this topic in the campaign. As a former rector of an agricultural university, I know that there is a solution to the current challenge associated with climate impacts, we just have to want to look for it and we must not obstruct this debate, as ex-president Klaus did with his statements regarding the very existence and origin of climate change. In addition, the correct solution to climate change is a wonderful opportunity for long-term sustainability, energy independence and innovations that will also help Czech companies and citizens."	Importance of climate change	Drought and air pollution	Interviews with candidates in an online article of Newspaper Respekt, uploaded on their official website	Issued 2022.11.20	Respekt, 2022: V Egyptě proběhl klimatický sumnit OSN. Může za změnu klimatu hlavně lidská činnost? (online) [cited 2022.12.12], Retrieved from < <u>https://www.respekt</u> <u>i.czfydenik2022/47/</u> <u>v=gypte-probiha-</u> <u>klimaticky-sumnit-</u> <u>osn-muze-za-</u> <u>zmenu-klimatu-</u> <u>hlavne-lidska-</u> <u>cinnost-a-pokud-</u> <u>ano-bude-to-pro-</u> <u>yas-dulezite-tema-</u> <u>behem-kampane-</u> <u>budete-to-</u> <u>yvsvetlovat-</u> <u>lidem?issueld=1005</u> <u>94</u> >.
N4	"Today, we are already feeling the changes in our own gardens - people's wells are running out of water, forests are being eaten by bark beetles, and unexpected temperature extremes are happening more and more often here ( <i>author's note: in the Czech Republic</i> ) too."	Importance of climate change	Drought and extreme temperatures	Nerudová's own post on her official Facebook Account	2023.01.05	Facebook, 2023: Official Account of Danuše Nerudová (online) [cited 2023.01.12], Retrieved from < <u>https://www.facebootk. ok.com/ohoto/?fbid= 169644009106768&amp; set=a.14704699803 3136&gt;.</u>
N5	"Just look at drought, lack of drinking water or forests destroyed by bark beetles. GD can have a positive impact far beyond environmental issues. I see it as an opportunity for innovations that will help citizens and companies and at the same time they would be environmentally friendly. However, this opportunity ( <i>author's note: transition to a green</i> <i>economy</i> ) must also be fulfilled taking into account the current security and economic situation."	Importance of climate change & GD	Drought	Interviews with candidates for the Czech News agency, uploaded on their official website	lssued 2022.10.09	Czech News Agency, 2022: S principy Green Dealu prezidentšti kandidáti většinou souhlasi (online) [cited 2022.12.10], Retrieved from < <u>https://www.cesken ovinv.c2/zpravy/s- principy-green- dealu-prezidentsti- kandidati-vetsinou- souhlasi/2268704&gt;.</u>

N6	"The young generation is the one who leads by example and lives in a sustainable way. We should fundamentally change the farming system in the countryside. The way we plunder the land leads to the fact that we will harvest less on it. The fact is that we have several regions where people do not have water in the well. We have a number of regions where due to drought, the forests were weakened and later eaten by bark beetles. The president should attend climate conferences and listen to younger generation. As president, I would surround myself with young people who are moving the world and society forward."	Importance of climate change & Changes	Drought	Debate with candidates organised by Student Parliament of the Region Plzeň, uploaded on their official YouTube account	2022.12.02	YouTube, 2022: Zavolíme! Záznam studentské debaty s prezidentskými kandidáty. Zavolíme! Account (online) [cited 2022.12.08], Retrieved from < <u>https://www.you</u> <u>tube.com/watch?</u> <u>v=ZTsSauE8Pk8</u> <u>&amp;t=1s</u> >.
N7	"Let's stop scare each other, that our economy will collapse and that there will be high unemployment. It is not true. The transition to a green economy will create more jobs. It is an opportunity for innovations and growth for the entire society."	GD		Nerudová's post on her official Facebook Account - record from a debate at Festival Ji.hlava from 25.10.2022	2023.01.05	Facebook, 2023: Official Account of Danuše Nerudová (online) [cited 2023.01.12], Retrieved from < <u>https://www.facebootk.com/danuseneru dova/videos/558170</u> 259227643>.
N8	"Through active diplomacy, I would like to contribute to the organisation of the COP27 summit ( <i>author's note: UN</i> <i>climate change summit</i> ) in the Czech Republic and the search for an international consensus on the approach to environmental protection and sustainability. I would appeal for change in energy policy towards independence and community energy. I would support energy savings because unused energy is the best and often the most cost- effective way to sustainability. In our country, the sun does not shine as much and the wind does not blow as much to get by without nuclear power. The question is the ability to build another unit, however, we should seriously consider investing in new technologies, for example mobile nuclear power reactors."	Changes		Interview with Nerudová in an online article of online Newspaper Ekonews, uploaded on their official website	Issued 2022.12.29	Ekonews, 2022: Prezidentští kandidáti: Danuše Nerudová chce být mluvčí klimatické změny (online) [cited 2023.01.08], Retrieved from < <u>https://www.eko</u> news.cz/preziden tsti-kandidati- danuse- nerudova-chce- byt-mluvci- klimaticke- zmeny/?utm_sou rce=rss>.
N9	"Constructive solutions to climate change are taboo in our politics. Landscape and soil deserve better care and modern solutions. I am ready to promote innovations in agriculture. I also want to support small farmers for whom the land is fundamental to their lives and therefore they take good care of it."	Changes		Nerudová's own post on her official Facebook Account	2023.01.10	Facebook, 2023: Official Account of Danuše Nerudová (online) [cited 2023.01.12], Retrieved from < <u>https://www.face</u> <u>book.com/photo/?ff</u> <u>bid=17091536564</u> <u>62998&amp;set=a.14704</u> 7001366469>.
N10	"I want a country that protects the environment, tackles climate change, builds energy independence and develops renewable resources at a reasonable price for its users."	Changes		Nerudová's own post on her official Facebook Account	2022.12.19	Facebook, 2023: Official Account of Danuše Nerudová (online) [cited 2023.01.13], Retrieved from < <u>kttps://www.facebook. ok.com/photo/?fbid= 1652868595424838</u> set=pcb.165281296 209706>.
P1	"I listen to the experts and follow my common sense. That is why I chose environmental protection as one of my presidential priorities. I want to explain to people that we cannot perceive this as an extremism, but as a practical task. We have a problem with soil degradation due to extensive agriculture ( <i>author's note: he probably reversed the word intensive with extensive</i> ). Air pollution threatens our quality of life and the beauty of our landscape. That is why we need to do our part in reducing GHG production, taking better care of our forests, returning greenery to cities and helping the soil to retain water and not dry out."	Importance of climate change	Drought, air pollution and soil degradation	Interviews with candidates in an online article of Newspaper Respekt, uploaded on their official website	Issued 2022.11.20	Respekt, 2022: V Egypté proběhl klimatický summit OSN. Může za zménu klimatu hlavně lidská činnost? (online) [cited 2022.12.12], Retrieved from <htps: www.respekt.c<br="">zhvdenik/2022/47/v- egypte-probiha- klimaticky-summit- osn-muze-za-zmenu- klimaticky-summit- duezite-tma-behem- kampane-budete-loo- vysvetlovat- lidem?lssueld=100594 &gt;.</htps:>

P2	"Everyone can start on their own and the president should lead by an example in	Discourses of climate	Individualism	Interviews with candidates in an	Issued 2022.11.20	Respekt, 2022: V Egyptě proběhl
	this. In case of my success, I would use the authority of the president to patronise civic initiatives and private projects seeking to minimise the impact of human activity on our landscape. Public events and festivals without single use packaging can be also an inspiration."	delay & Changes		online article of Newspaper Respekt, uploaded on their official website		klimatický summit OSN. Může za změnu klimatu hlavně lidská činnosť? (online) [cited 2022.12.12], Retrieved from < <u>https://www.resp ekt.cz/tydenik/202</u> 2/47/v-egypte- probiha-klimaticky- sumit-osn-muze- za-zmenu-klimatu- hlavne-lidska- cinnost-a-pokud- ano-bude-to-pro- vas-dulezite-tema- behem-kampane- budete-to- vysvetlovat- lidem?issueld=100 594>.
P3	"I think it is a shame that we demonise GD like this. Many people do not know its content, but they think it is something bad because they keep hearing that 'it is bad'."	GD		Debate with Babiš and Pavel organised by Czech public radio broadcasting (Český rozhlas), uploaded on their official YouTube account	2023.01.27	YouTube, 2023: Prezidentské volby 2023: Duel. Czech public radio broadcasting (Český rozhlas) Account (online) [cited 2023.02.12], Retrieved from < <u>https://www.you</u> <u>ube.com/watch?</u> <u>v=mJseCthGBT</u> <u>M&gt;.</u>
P4	"We have made a spooky ghost out of the GD. We have no other way anyway and it is time to start implementing concrete steps."	GD		An interview with Pavel for online journal Aktuálně.cz, uploaded on their official website	Issued 2023.01.05	Online journal Aktuálně.cz, 2023: Petr Pavel: Nerudovou bych si na Hrad vzal. U Babiše by šly rukavice rychle dolů (online) [cited 2023.01.14], Retrieved from < <u>https://zpravv.a</u> <u>ktualne.cz/domac</u> <u>i/petr-pavel-</u> nerudovou-bych- <u>si-na-hrad-yzal-</u> <u>u-babise-by-sly-</u> <u>ru/r-3d37zc488c</u> <u>4611ed8b4e0cc4</u> <u>7ab5f122/&gt;.</u>
Ρ5	"If the Czech Republic wants to maintain the quality of life its citizens are used to, it is necessary to move towards sustainability and climate neutrality."	GD		An interview with candidates issued on esg- investice.cz website, source Czech News agency	Issued 2022.10.12	ESG website, 2022: Co si o Green Dealu myslí kandidáti na prezidenta? (online) [cited 2022.12.18], Retrieved from < <u>https://www.es</u> g- investice.cz/gre <u>en-dealu-</u> kandidati-na- <u>prezidenta/</u> >.
P6	"Air pollution threatens the quality of our life and our landscape. That is why we need to do our part in reducing GHG production, taking better care of our forests, returning greenery to cities and helping the soil to retain water and not dry out."	Importance of climate change & Changes	Drought and air pollution	Pavel's post on his official Facebook account - video from an interview for online journal Aktuálně.cz	2023.01.09	Facebook, 2023: Official Account of Petr Pavel (online) [cited 2023.01.14], Retrieved from < <u>https://www.fac ebook.com/watch</u> /?v=5312623587 80898>.

P7	"If we give farmers subsidies not only for the production of agricultural products, but also for the protection of the environment, it would make sense if we give subsidy, for example, for an implementation of a small green area as a shelter for small animals. Other subsidy could be given to farmers for that part of land that they would let waterlogged." "We have the biggest concentration of large warehouses at least in Central Europe. If we give all these companies requirements to meet some ecological criteria, for example green roofs or buildings being at least partially embedded in the terrain, it would certainly make a significant contribution. It would be good if we could more quickly implement photovoltaics on public buildings and apartment blocks. If the country helps and gives some incentives, we could very quickly reduce the consumption of electricity, at least in some seasons during a year."	Changes	Pavel's post on his official Facebook account - record from an interview for online journal Aktuálně.cz	2023.01.09	Facebook, 2023: Official Account of Petr Pavel (online) [cited 2023.01.14], Retrieved from < <u>https://www.fa</u> <u>cebook.com/wat</u> <u>ch/?v=5312623</u> 58780898>.
P8	"However, we should reevaluate the ways to achieve the set of goals leading to climate neutrality, as well as their time horizon. Considering the security situation, it is necessary at this moment to focus mainly on cutting off Russian fossil fuels and to use all available ways to do so. When the situation is stable, a debate on greener solutions can follow."	Changes	An interview with candidates issued on <u>esg-</u> <u>investice.cz</u> website, source Czech News agency	Issued 2022.10.12	ESG website, 2022: Co si o Green Dealu myslí kandidáti na prezidenta? (online) [cited 2022.12.18], Retrieved from < <u>https://www.es</u> g_ investice.cz/gre en-dealu- kandidati-na- prezidenta/>.
P9	"We should not focus on separate areas, but look for connections between individual spheres and direct them towards sustainability. For now, we are focusing on individual goals such as electromobility or planting trees, but we are not dealing with an entire chain of consequences. The president can convene expert meetings and propose solutions. The president can pressure politicians to implement those solutions."	Changes	Debate with candidates organised by Student Parliament of the Region Plzeň, uploaded on their official YouTube account	2022.12.02	YouTube, 2022: Zavolíme! Záznam studentské debaty s prezidentskými kandidáty. Zavolíme! Account (online) [cited 2022.12.08], Retrieved from < <u>https://www.you</u> <u>ube.com/watch?</u> <u>v=ZTs5auE8Pk8</u> <u>&amp;t=1s</u> >.

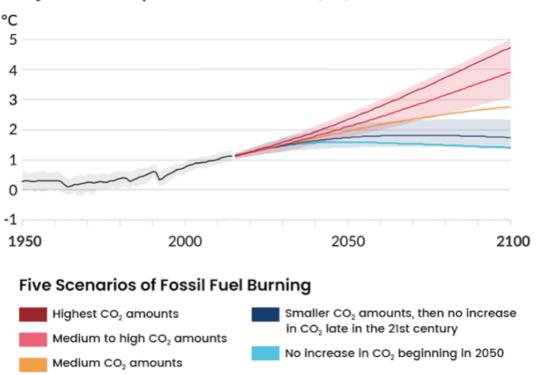
Table 1. Full list of all statements, including their categories, subcategories and sources.

In the rest of the thesis, parts of the text that refer to candidates' statements are marked with its statement code (B1 - P9).

### 4. Literature review

#### 4.1 Consequences of gradual warming

A team of scientists from all over the world are currently part of the Intergovernmental Panel on Climate Change (IPCC). These scientists have found that between years 1900 and 2020, the world's surface air temperature increased an average of 1.1°C due to burning of fossil fuels that releases CO<sub>2</sub> and other GHG into the atmosphere. Climate models predict that global average temperature on the planet Earth will rise an additional 4°C during the 21<sup>st</sup> century if GHG levels continue to rise at present levels. Without swift action to reduce GHG emissions, resulting models project that holding global average temperatures between 1.5 and 2°C increase may no longer be possible (Center for Science Education ©2021; Legg, 2021).



Projected Temperature Increase (°C)



A warmer average global temperature will cause the water cycle to speed up due to a higher rate of evaporation. More water vapor in the atmosphere will directly lead to more precipitation. Global average precipitation can increase by 7 % for each degree of warming, which means in the future can be expected much more rain and snow, and a higher risk of flooding in some regions. With a 2°C temperature increase, heavy rain events are expected to become 1.7 times more likely, and 14 % more intense. However, changes in precipitation will not be evenly distributed. Some locations will get more, and others get less (Center for Science Education ©2021; Legg, 2021).

A warmer climate causes sea level to rise because of two mechanisms: (1) melting glaciers and ice sheets (ice on land) add water to the oceans, raising the sea level, and (2) because ocean water expands as it warms, it increases volume and thus also raising sea level. Some climate scientists are convinced that hurricanes, typhoons, and other tropical cyclones will change as a result of global warming. These immense storms should be driven by energy from warm surface waters of the ocean. Warmer oceans in the future are expected to cause the intensification of such storms (Center for Science Education ©2021; Legg, 2021). Based on today's predictions, by the end of the 21<sup>st</sup> century, central European countries will experience the same number of hot days as are currently common in southern Europe. The intensity of extreme temperatures increases more rapidly than the intensity of more moderate temperatures over the continental interior. Heavy winter precipitation increases in central and northern Europe and decreases in the south; heavy precipitation during summer increases in north-eastern Europe and decreases in the south (Beniston et al., 2007).

#### 4.2 The importance of climate change in the Czech Republic

Research in year 2020 showed that 93 % of Czechs believe that the climate is changing or rather changing, but because of inconspicuous climate change progress, people do not insist so much on its immediate solution. People pay the most attention to it when they have personal experience with some of the effects of climate change. Some people believe that climate change will not affect them. Or, on the other hand, some do not associate individual ecological problems (for example drought) to climate change. These people do not see the individual environmental problems that affect them because of something bigger. In the case of the progress of climate change, Czechs are most afraid of drought, together with a lack of water and migration to the Czech Republic (Krawiecová, 2021). It makes sense, because the consequences of climate change, which the Czech Republic has experienced firsthand, are mainly

drought, extreme temperatures, but also heavy rainfall (Ministry of the Environment of the Czech Republic ©2021). Especially younger generations ascribe the importance of climate change. They are the most active in it and adapt to needed changes faster.

With new technologies, the consumption of electrical energy is increasing, and the use of traditional energy sources further accelerate climate change. Combustion of fossil fuels as a traditional energy source is still the most common process for electricity production in the Czech Republic (Statista ©2023b). Energy is an important topic that is one of the most discussed topics in society in connection with climate change. This topic is discussed in more detail in section 4.4.1.

Agriculture and forestry are the sectors most affected by climate change in the Czech Republic (Ministry of the Environment of the Czech Republic ©2021). The change is most evident in extreme hydrological events, such as floods and droughts, resulting in a change in soil properties (Pelc, 2009). This could reduce the source of income for farmers. This topic is discussed in more detail in the section 4.4.2.

#### 4.3 The European response: Green Deal

The European Green Deal is a package of policy initiatives, which aims to set the EU on the path to a green transition, with the ultimate goal of reaching climate neutrality by year 2050 (Council of the EU ©2022). The EU Commission defined the GD as a response to climate and environment-related challenges. It builds on the complex framework of energy and climate policies that the EU has developed over the last three decades. Currently, the EU's climate and energy governance are structured around three main headline targets (1) concerning GHG emission reduction of levels from the year 1990, (2) the share of renewable energy in final energy consumption, and (3) improvement in energy efficiency (Siddi, 2020). The GD should be conceived as a reallocation mechanism, along with help of investment shifts and labour substitution in key economic sectors and at the same time supporting the most vulnerable segments of society throughout the decarbonisation process. The deal's four pillars would be industrial policy, carbon pricing, sustainable investment and a just transition (Claeys et al., 2019).

Charge of emissions is an important tool of European policy. Textbook economics suggest putting the same price on all emissions. This would incentivise economic actors to reduce all emissions that can be mitigated at a cost below this emission price

and would avoid inefficient circumvention (an example are consumers preferring to use natural gas that is not covered by the current emission pricing system, instead of electricity which is). There are two main instruments for putting a price on emissions. Either the government creates a price for the produced emissions – a taxation – or the government issues a fixed volume of emission allowances and leaves the market to evaluate a price for these allowances by itself. Economists have a slight preference for taxation instead of emission allowances because there is a smaller risk of getting the price wrong than getting the volume wrong. Although it is still difficult to define a minimum tax rate that is equally acceptable to the poorest and richest countries in Europe (Claeys et al., 2019). The carbon tax is paid in many European countries like France, Spain, Poland and Scandinavian countries. There is currently no carbon tax in the Czech Republic (Ramstein et al., 2019), but carbon taxation is often a subject of debates and presented as a scarecrow in the Czech media.

Participating companies in emission trading system which can reduce emissions at lower costs can sell the saved emission allowances/emission credits to those for whom such a reduction would be more costly. Currently there are two interconnected emission trading systems operating in the Czech Republic: the EU Emission Trading Scheme (ETS), which is the largest trading system and the International Emissions Trading (IET), which includes the countries of Appendix 1 of the Kyoto Protocol (Ministry of the Environment of the Czech Republic ©2023). Currently, most ETS revenue is given to national governments, which are bound by a relatively weakly monitored commitment to spend half of the money for climate and energy purposes (Claeys et al., 2019). This is an opportunity for a future president to keep an eye out for compliance of this commitment.

Europe is a global innovation leader in sectors such as automotive and biopharma, but is less active in the fast-growing technological, electronic and digital sectors that will increasingly underpin clean energy, clean mobility and smart buildings solutions. Newly created European Innovation Council (EIC) is designed to financially support – through a combination of grants and equity – innovators who are developing high-risk, disruptive innovations with the potential to create new markets. The EIC could become the core innovation tool of the European GD (Claeys et al., 2019), but currently also because of the short existence of the EIC, most European 'green' innovations are created outside the EIC. There are many EU funds that support sustainable projects and companies with a low pollution impact. There is a possibility that EU funds may end up supporting projects that are not climate friendly but are

presented this way by investors (a phenomenon called 'greenwashing'). A deeper explore of those intentions would be very costly and time consuming (Siddi, 2020).

GD should be perceived as a shift from fossil fuels to renewables, turning combustionengine car jobs into electric car jobs, compensating low-income households for higher fuel prices and re-training coal miners to get new jobs (Claeys et al., 2019). There was observed rising support for anti-European parties in many countries (Wolf et al., 2021). Member countries such as Poland and the Czech Republic are sceptical about the climate agenda and often oppose ambitious goals (Siddi, 2020). If the GD is going to be seen as the bullying big brother, more supporters of those parties are going to appear.

#### 4.4 Crucial sectors in Czech context

#### 4.4.1 Energy

The energy sector is by far the biggest polluter in the world – 73,2 % of global GHG emissions comes from this sector (Ritchie & Roser, 2020). GHG are responsible for global warming because they trap heat that would otherwise escape from the atmosphere (Kweku et al., 2018). CO2 accounts for about 76 % of total GHG emissions. CH<sub>4</sub>, primarily from agriculture, contributes 16 % of GHG emissions and nitrous oxide, mostly from industry and agriculture, contributes 6 % to global emissions (Center for Climate and Energy Solutions ©2019). The energy sector is (with 39 % share in year 2019) the number one contributor to GHG emissions in the Czech Republic. Nuclear power is key to its emission cutting strategy (36.7 % of total net electricity production were generated from nuclear power plants in 2021) (Jensen, 2021; International Atomic Energy Agency ©2022). The sector of transportation (with 16 % share in year 2019) is the second biggest contributor to GHG emissions in the Czech Republic. Every year from 2013 to 2019 the annual GHG emissions from fuel combustion went up. Whereupon in the year 2020 it decreased where it has been between years 2015 and 2016 (Jensen, 2021; Statista ©2023a). In year 2020 due to Covid-19 pandemic most transport networks and industries were at least for some period closed and during that time CO<sub>2</sub> emissions went down. Czech cities are still mostly friendlier to cars than to pedestrians or, for example, cyclists. Changes are happening, but slowly and not everywhere.

Recently, there was a significant increase in the price of energy, and thanks to this, people began to think more about alternative energy sources. The most common is the installation of solar panels on family houses. Because of weather and

geographical conditions, other renewable energy sources such as wind and hydro power do not have a big share in Czech Republic. More than half of all renewable energy in the Czech Republic come from photovoltaic (PV) power plants. In year 2013, the share of renewable energy sources in the total gross final energy consumption in the Czech Republic was 13.93 %. In year 2019, the share amounted to 16.24 %, representing a total increase of 2.31 % over six years (Šafařík et al., 2022). Even though solar power is the fastest-growing source in Europe, wind and hydro power have much bigger share (more than two-thirds) because of weather and geographical conditions in other EU countries (Eurostat ©2022). Czech Republic met target settled for the share of energy from renewable sources in year 2020, but overall is slightly under the EU average of this share (Eurostat ©2021).

Climate change and transition towards circular economy is clearly a big business. Lobbying is an important factor in the success or failure of climate change legislation. Major sectors involved in lobbying in the Unites States (US) were fossil fuel and transportation corporations, utilities, and affiliated trade associations. Expenditures by these sectors dwarf those of environmental organizations and renewable energy corporations (Brulle, 2018). On the other side there are people with their interest into renewables. Li et al. (2019) talks about solar lobby and energy transition in Japan. Due to significant cost advantages, wind energy penetrated the energy mix of most large countries much faster than solar PV did until the recent decade. However, Japan has been almost one-sidedly leaning toward the more expensive solar PV. Because of this renewable energy development, a wide distance from more economically optimal situations was created. Based on this example, energy transitions could be more costly than necessary.

It needs to be mentioned that wind and solar energy are also not 'impact free' when it comes to environment. For example, for solar panels there need to be extracted metals and metalloids like silver, selenium, tellurium, indium, germanium and more (Devda, 2022). Mining for those essential components involves the handling of highly toxic materials, and contamination of surrounding soil and water in the process. Mining for rare metals is one of most polluting industries in China (Moore, 2019). Solar and wind energy also depend on the extraction of lithium in Bolivia and the Democratic Republic of Congo for the batteries needed to store the energy (López, 2015). After the life cycle of a solar panel, huge amount of waste that is not easy to recycle remain (Shellenberger, 2018). Because of this fastest-growing source sooner or later this is going to be a big problem.

European Parliament in year 2022 votes to include nuclear energy in the list of green investments, those are great news not just for France, but also for the Czech Republic (Tillyaev, 2022). Tillyaev (2022) mentions that it is essential for investors to act quickly and support EU nuclear projects to ensure energy security. The realisation of a nuclear project is a long haul, it has problematic nuclear waste management, it is very expensive and finally, there is always a chance of an accident or misuse as a nuclear weapon. Current security requirements are at an extremely high level, but there is always some risk. Although nuclear power cannot on its own halt global warming, it should be included among the options considered by country with a growing demand for electricity. Development of an energy portfolio should take into consideration the country's available energy sources and the need of its people (Ahearne, 2011). The governments in Germany and Sweden have not been in favour of nuclear energy for a long time. However, the country-owned company Vattenfall is planning to build at least two small modular reactors in Sweden and German chancellor Olaf Scholz recently decided to extend the operation of the last three nuclear plants (Spasić, 2022; Buli, 2023). Prices of energy, its sources and dependence on Russian gas are currently the biggest topics discussed in the whole EU and important decisions are being made. Due to the Russia's invasion of Ukraine and the uncertainty of energy supply, especially in winter, leaders extended the lifeline of coal-fired power plants (Falkner, 2022). Solar and nuclear energy sources and biogas stations have great potential to have a large share in the new energy mix in the conditions of Czech Republic. At the same time, they would increase the Czech Republic's independence from importing natural gas and crude oil.

#### 4.4.2 Agriculture and forestry

Agricultural land and forests cover more than 70 % of the territory of the Czech Republic and naturally absorb a large amount of carbon and prevent it from escaping into the atmosphere. For this reason, they are very important for climate protection. Agriculture, on the other hand, is also a source of GHG emissions, to a lesser extent CO<sub>2</sub>, but mainly nitrous oxide (N<sub>2</sub>O) and CH<sub>4</sub> (Ministry of the Environment of the Czech Republic ©2017). Globally, around 17 % of total GHG emissions come from agriculture. In the Czech Republic, according to the latest data, it is 6-7 %. A key role is played by CH<sub>4</sub>, which is produced during animal production and has a greenhouse effect many times greater than CO<sub>2</sub> (Rambousek & Vizi, 2021). Since year 2015, GHG emissions from agriculture have tended to decrease slightly. There are many reasons for it, including the modernization of technology and the introduction of new varieties and breeds. The number of farm animals continues to decrease, and thus the amount

of CH<sub>4</sub> released into the atmosphere also decreases. An important way of using CH<sub>4</sub> and preventing its spontaneous formation is the processing of agricultural production residues in biogas stations. The amount of electricity produced in the Czech Republic from biogas has increased dramatically over the past 20 years, and there are currently 554 biogas stations (Ministry of the Environment of the Czech Republic ©2017).

Development of ecological agriculture is an important tool for reducing the consumption of mineral fertilizers. The support provided under the EU-managed Rural Development Program of the Czech Republic has a fundamental influence on the expansion of the area of agricultural land, which is managed according to the principles of ecological agriculture (Ministry of the Environment of the Czech Republic ©2017). Ecologically managed land in the Czech Republic grew by almost 10 % between years 2020 and 2021. The Czech Republic is not weakly represented in ecological farming, in the area of ecologically farmed land it ranks eighth in Europe and twentieth in the world (Ministry of Agriculture of the Czech Republic ©2023).

Thanks to the collectivization of agriculture in the 1950s and 1960s in the Czech Republic, fields were merged into large units. These agricultural structures persist to this day and are characterized by low biodiversity and are prone to various types of erosion. They significantly threaten production in agriculture, as large areas are often farmed in the same way and the same crops are grown repeatedly. This monotonous management style is then more vulnerable and has more devastating consequences in case of unexpected events. If the system were more varied, with areas of fields and meadows compensated by forest and appropriately located water features where farm animals are kept in reasonable quantities, then the impact of agriculture on climate change would be marginal compared to other sectors (Rambousek & Vizi, 2021). This system of management would help retain carbon in the soil or promote its storage (Ministry of the Environment of the Czech Republic ©2017).

Climate change accompanied by inappropriate land management results in extreme hydrological events and extreme weather conditions that leads to change in soil properties, including carbon sequestration in the soil. Over the past year, the number of farmers in the Czech Republic has increased by 4500, mainly due to subsidies (Brož, 2023). The payment of subsidies to farmers is conditional on the fulfillment of defined standards and requirements. Within the framework of the Rural Development Program, 'agroenvironmental-climatic' measures are important, namely by maintaining or even strengthening the ability to retain nitrogen by setting up appropriate soil management. Another effect of defined measures is the

strengthening of anti-erosion measures (namely measures like turf laying and appropriate grassland management), especially in nitrate-endangered areas or along waterways (Ministry of the Environment of the Czech Republic ©2017).

Forestry is a unique sector regards to GHG because it is practically the only sector that allows a negative  $CO_2$  balance (Ministry of the Environment of the Czech Republic ©2017). The Czech Republic has been dealing with weakened forest cover for a long time, mainly due to the planting of monocultures and drought. Weakened forest cover is more susceptible, for example, to bark beetles, which would not kill the tree as quickly, but often carry a parasitic fungus that disrupts the tree's immune system. Due to the destroyed harvest and the subsequent smaller production, the price of wood as a material, which is one of the environmentally ones, may increase (Hlásny et al., 2019).

The national plan, with a view to year 2030, is to create conditions for higher domestic use and consumption of wood and wood products and to create conditions for investments in the forestry sector. Furthermore, it is planned to reduce the export of wood from the Czech Republic and to support research and development aimed at better utilization of wood and the search for new product possibilities with the use of wood. All this should lead to greater use of wood as a renewable carbon-binding raw material and as a substitution to other materials, whose production is associated with high  $CO_2$  emissions. Reducing the export of raw and already processed wood will contribute positively to the emission balance (Ministry of the Environment of the Czech Republic ©2017).

#### 4.5 Czech political scene and climate policy

Environmental scepticism is an attitude that rejects the authenticity of many or individual (primarily global) environmental problems. A climate sceptic can also be someone who acknowledges that global warming is occurring, but questions its anthropogenic causes, or believes that warming is harmless or directly beneficial (Vidomus, 2013). Vidomus (2013) identified three features of the climate sceptics in the Czech republic, namely significant role of ex-president Václav Klaus, connection between climate scepticism and Euroscepticism, and the specific trait of Czech people to resist any ideological connotations as a heritage from Communist era. Czech ex-president Václav Klaus is known for his statements about downplaying climate change. He left the president's office ten years ago, but his legacy lives on. This leads to Czechs being more sceptical compared to other nations. In an

international comparison, it has been shown that Czechs in general attach significantly less importance to climate change than, for example, to the economic situation (European Commission ©2008, 2009, 2011).

President Miloš Zeman ended his presidential term in the beginning of March 2023, after ten years as the head of country. In the past Miloš Zeman promised, that after his electing he will be surrounded by non-party experts. However, after his electing he created a powerful net of people around him, that were primarily connected to one political party (Demagog ©2015). During last years he has been very invisible as the head of country and often referred to his poor health condition. He said that he considers the global climate conference in year 2019 to be one big media bubble. He explains current warming of the planet as an alternation between warm and cold periods of the globe (cycles) (iDnes ©2019).

Zeman was the first president elected in a direct election. Before direct election, president could choose to be more silent alongside with the parliament. With direct election people expect that the new president will carry some agenda, own political program, that has been already presented during their presidential campaign. There are a lot of topics that cannot be solved during a regular election cycle, because those cycles are too short and topics transcending election periods often unpopular to deal with. President should be the person that lift the important topics, on which is no time or willpower. One of those topics is for sure climate change (Respekt ©2022). Climate change now seems to be overshadowed primarily due to war in Ukraine and energy and food prices.

At the national level, in year 2017 the government approved the Climate Protection policy in the Czech Republic, which replaced the national program for mitigating the impacts of Climate Change in the Czech Republic from year 2004. The Climate Protection policy contains goals and measures to reduce GHG emissions following the obligations arising from international agreements (the UN Framework Convention on Climate Change and its Kyoto Protocol, the Paris Agreement and obligations arising from the legislation of the EU). The strategy focuses on the period from year 2017 to 2030, with a view to year 2050, and should thus contribute to the long-term transition to a sustainable low-emission economy of the Czech Republic. The approach to the issue can be divided into a policy aimed at reducing anthropogenic GHG (so-called mitigation) and a policy of adapting to the negative effects of climate change (so-called adaptation). Leading industrial countries in Europe, such as the Czech Republic, may have a more difficult transition to a green economy. In the Czech

Republic, the manufacturing industry has a share of gross domestic product (GDP) of approximately 25 % (the EU average is 15 %). Therefore, it is appropriate to focus specific mitigation policies on the sectors of energy production and consumption, industry and transport, which contribute the most to the overall balance of GHG emissions (Ministry of the Environment of the Czech Republic ©2017).

The national plan for a low-carbon economy envisages increasingly cleaner and more efficient technology and, after year 2035, also the application of carbon capture and storage (CCS) technology in those areas of industry (for example steel and cement production) where it will not be possible to reduce emissions in other ways. In addition to CO<sub>2</sub>, emission reductions are also expected for N<sub>2</sub>O for industrial chemical production, CH<sub>4</sub> and fluorinated hydrocarbons HFC/PFC. The development of nuclear energy is expected, specifically the increase in the efficiency of existing nuclear power plants and the construction of new units. In the transport sector, several measures are being implemented to strengthen the use of different types of alternative fuels. The plan is to increase the quality, attractiveness and use of public transport, especially in combination with its gradual greening. In the case of electromobility, the most effective form of support is a combination of parking and charging infrastructure support (Ministry of the Environment of the Czech Republic ©2017).

The long-discussed carbon tax is planned not only for big polluters, but also for small polluters at the household level that heat with coal or natural gas. One of the problems is that especially the poorer residents heat with coal and they would be punished the most. There is talk of possible compensation for these households. Regular evaluation and updates aimed at reducing GHG emissions from different sectors are expected every five or seven years (Ministry of the Environment of the Czech Republic ©2017).

#### 4.6 Discourses of climate delay and framing of climate change

'Discourses of climate delay' by Lamb et al. (2020), are discourses that are currently emerging in debates about climate action. These discourses do not deny the existence of climate change but justify inaction or inadequate efforts. The author identified the typology of discourses of climate delay, which is an important theoretical part of the thesis. The typology consists of 12 identified discourses that can be grouped into four categories: (1) redirect responsibility; (2) emphasize the downsides; (3) push non-transformative solutions and (4) surrender to climate change. Categories

contain two, three or four types of discourses that are linked by a certain similarity feature.

In category (1) are three types named individualism, the 'free rider' excuse and whataboutism. The individualism type is focused on the activities of individuals and deviates from system solutions. A 'free rider' can argue his inactivity by saying that others (for example, other countries) are not trying to reduce their emissions. Someone who belongs to the whataboutism type diverts attention from climate change to another topic. In category (2) there are three types named policy perfectionism, appeal to social justice and appeal to well-being. Policy perfectionist is strongly focused on precise climate change policy. Those in the appeal to social justice group refer to the large costs associated with the fight against climate change and that especially the vulnerable members of society would be burdened. Those in the appeal to well-being group do not see a prosperous rich society and continued development with climate change measures. Category (3) contains four types named all talk, little action; technological optimism, fossil fuel solutionism and no sticks, just carrots. The first one – all talk, little action, talks about the topic a lot, but no action or very little is done. A technological optimist is focused on current and future technologies that in one's eyes should solve the issue of climate change. Someone assigned to fossil fuel solutionism type see fossil fuels as a part of the solution, especially its bigger future efficiency. Last group in this category - no sticks, just carrots, refers to positive motivation strategy and does not support measures, limits and other tools of restrictive policy. Category (4) called surrender, has two types of discourses - change is impossible and doomism. People with 'change is impossible' mentality do not see a way out in effectively reducing emissions while simultaneously maintaining a way of life and preserving a democratic society. Someone from the doomism group is fully committed to catastrophic scenarios under the impact of climate change, sees no way out of it, just accepts the fate (Lamb et al., 2020). The scheme of all 12 discourses is in the picture below.

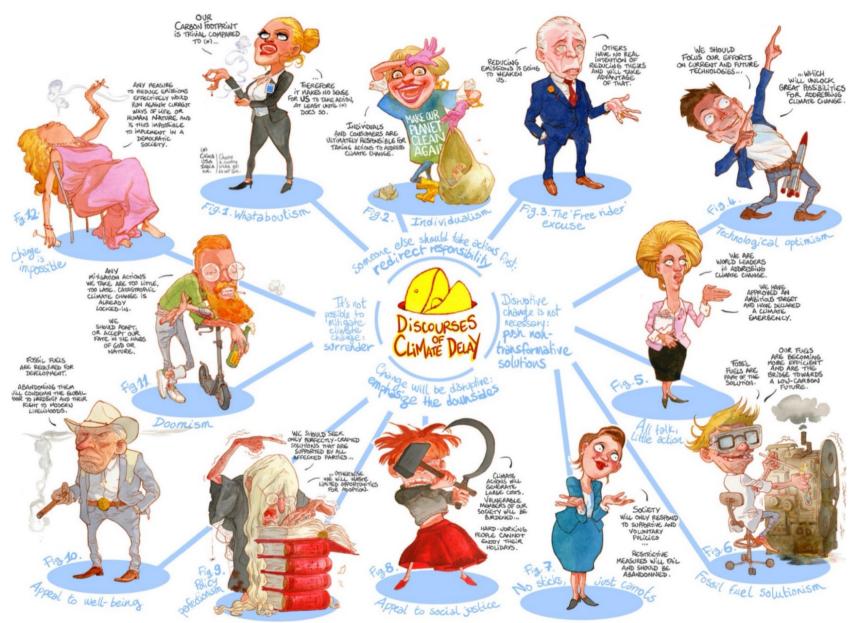


Figure 2: All 12 discourses of climate delay with example statements (https://www.leolinne.com/?portfolio=discourses-of-climate-delay).

Words themselves are not frames, but are defined relative to frames. Hearing a word can activate its frame — and the frames in its system — in the brain of a hearer. Under the right conditions, words can be chosen to activate desired frames. This is what effective communicators do. In order to communicate a complex fact, one must choose words carefully to activate the right frames. If the hearer has no such frames, it is possible to create ones with the correct use of words. In order to communicate fact about some topic, speaker should create a narrative that builds up an appropriate system of frames in your mind. Frames are communicated via language and visual imagery and speech or some visual presentation must be framed effectively in order to have a bigger impact (Lakoff, 2010).

The process of framing involves two key ingredients: selection and salience (Stecula & Merkley, 2019). Framing is then about selecting some key aspects of the perceived reality and making them more salient in the process of communication (Entman, 1993). There are frames related to climate change discourse, which among other things emphasize economic costs or benefits, heighten partisan or ideological conflict and emphasize or downplay scientific uncertainty (Stecula & Merkley, 2019). Other can frame the coverage of climate change and define categories. Those categories can be ecology/meteorology; politics and economics; culture and society; scientific discoveries, new studies and so on (Boykoff, 2008).

There are likely implications for the public's support and willingness to act on those approaches in a variety of ways — from voting for environmentally friendly candidates and parties to personal initiative and political activism. The frames that citizens encounter may lead citizens to view climate science as uncertain or mitigation as costly (Stecula & Merkley, 2019). Scientific findings have shown that people are less likely to support climate change mitigation policies when the economy is underperforming (Elliott et al., 1997), and that the concern with climate change is correlated with higher levels of employment and income (Scruggs & Benegal, 2012; Carmichael et al., 2017). Baiardi & Morana (2021) find out that environmental concern is directly related to per capita income, social trust, secondary education, the physical distress associated with hot weather, media coverage, the share of young people in the total population, and monetary losses caused by extreme weather episodes. Conservative political leaders tend to significantly contribute to climate change scepticism (Baiardi & Morana, 2021). Companies, politicians, citizens, activists, and others have typically different interests and for this reason, their discourses of climate differ. Phenomenon called 'greenwashing' is frequent in the case of companies which target on ecologically minded customers and clients. It can be classified as

a marketing trick providing misleading or incomplete information, however, is usually legally in order. As a result, the person is under a mistaken impression that what this company provide has little or no impact on the environment (de Freitas Netto et al., 2020). Thus, greenwashing is more typical for the sector of business, it can be also used by politicians and others.

Wording of the speech is very important. As an example, Barack H. Obama and David W. D. Cameron at the United Nations (UN) Climate Change Conference in Paris in year 2015, compared climate change to war to emphasize the severity of the topic. By both describing an environmentally friendly lifestyle as an economic opportunity, they distance themselves from the argument that such a lifestyle implies a lower lifestyle and difficult changes of habits (Silden, 2017). Or other example from the same conference is when Prince Charles of Britain said, that "Humanity faces many threats, but none is greater than climate change" (World Economic Forum ©2015). With this single sentence, he distanced himself from one type of climate delay discourses named whataboutism.

#### 4.7 Social media

From the printed form, newspapers are getting more into the online world. The online world has more to offer and is constantly evolving. With that comes the world of social media, where everyone, including politicians and other people in decision-making positions, can express themselves. Official accounts of politicians, especially during election periods, are now commonly used as part of campaigning and at the same time they can help to make some issue more visible. The news media for a long time played a crucial role because they have been the primary source of information on complex political issues for the average citizen (Stecula & Merkley, 2019). Now when social media are becoming more and more popular, they are a strong competitor to current news media as a source of information. There is not just one used definition of social media. McKenna et al. (2017) describe as social media all computer-based tools (such as websites and apps) that enable people to create and share content with other people and/or participate in a community. Fuchs (2013) wrote that the term "social media" is usually related to web 2.0 applications such as blogs, social networking sites, or video/image/file sharing platforms. Whereas IT (information technology) tools to support collaboration have existed for decades, new social media technologies enable collaboration on a much grander scale (Bradley, 2010).

Gathering data from social media has a great potential, but a lot of challenges comes with it. The size of the social media data set might be daunting, even for experiences researchers. New types of digital texts like avatars, emoticons and others are often included. Visual cues and new types of behaviour appear. One of them is ,lurking', where participant adopt passive behaviour (listening, observation, possibly recording), but does not contribute. The permission to access some site with data could be also denied. With user generated data, there is less control and less knowledge about the origin of the given data. Finally, is the question of ethics, which includes informed consent of data gathering and explanation of its purpose, for example for research (McKenna et al., 2017).

There is a big amount of qualitative data added into the Internet platforms like Facebook, Twitter, Instagram etc. everyday. Qualitative studies in IS (Information system) using social media data are few and far between. Interviews of social media users are the most common data collection method. Only a small number of papers used qualitative data directly gathered from social media platforms. There is an enormous opportunity to contribute with data extracted from social media platforms to qualitative data analyses. It is estimated that 90 % of all digital content on the Internet today are unstructured data, with most it of a qualitative nature (McKenna et al., 2017). A lot of data on social media platforms are not uniform and structured in its nature (Huang & Xu, 2014).

#### 5. Results

#### 5.1 Is the issue of climate change important to the candidates and why?

All three main candidates agree that climate change is happening. There was one topic regards to climate change that was repeated the most during their presidential campaign and that was drought. Nerudová is the winner when it comes to discourse about this topic. She often drew attention to this issue within the conditions of the Czech Republic and uses the pronoun "we". "Today we feel the change already in own gardens – water vanishes from wells and forests are being destroyed by bark beetles," she said (N4). Maybe it was also recommended by her team to target on topics that people may have experiences with. Within the issue of drought, she focused exclusively on the countryside and people living in the countryside. Her speeches were the most moving from the three candidates, for example when she

said that she would support small farmers for whom the land is fundamental to their lives (N2).

Pavel also described the drought using an example of the landscape, he said that it is necessary to keep water in the soil so that it does not dry out (P1 and P6). The issues connected to water and drought were repeated by both candidates – Pavel and Nerudová. Both candidates are open to support agriculture sector in some way. Nerudová is ready to support innovations in agriculture (N9) and Pavel mentioned the possibility of subsidies to farmers for the implementation of agri-environmental measures like creation of small, grassed areas as a shelter for small animals and waterlogging (P7). Pavel was the only one who mentioned a serious problem of the Czech Republic and that is soil degradation due to intensive agriculture (P1) (He said extensive agriculture and with a big probability accidentally reversed the word intensive with extensive).

Nerudová was the only one that many times mentioned bark beetles in the context of drought (N6). The bark beetle has been degrading the forest cover in the Czech Republic for a long time, and it is scientifically proven that drought plays a role in it. She speaks intelligibly and clearly about topics that are very familiar to the Czech people.

The second most emphasized topic related to climate change was air pollution. Both Pavel and Nerudová mentioned it.

## 5.2 Which typology of climate delay discourses do candidates best fit into?

Nerudová was the only one that directly mentioned that we have a delay when it comes to climate change (N2). She talked about current problems regards to climate, but often does not mention concrete solutions. There was a tendency from her side to be one of the discourse figures, which is named 'all talk little action', but the results were not conclusive.

There was a tinge of an Individualism-type discourse as Pavel said that everyone can start on their own (P2), he said nothing more about it. He is not assigned to any of the climate delay discourse.

Babiš came out as a typical 'Free rider', which is characterized by arguing against pro climate actions. He said several times that with current efforts the European industry will be destroyed. He also said that Europe produces just 8 % of the global emissions and that the actions should be taken by the whole world and not just Europe. In this

way he redirected responsibility to other continents. Babiš is obviously scared of how the green economy will be competitive with other economies.

## 5.3 How candidates talk about GD?

Nerudová and Pavel generally agree with the steps taken within the GD. Pavel thinks it is a pity that GD is so demonised. "Many people don't know its content, but they think it is something bad, because they keep hearing that 'it is bad'," said Pavel (P3). As the only candidate he mentioned the fact, that Czech Republic has no other option than to implement the GD as an EU member country and that concrete steps taken by the Czech Republic should start to be implemented. Something that could strike someone as a certain threat was when Pavel mentioned that if the Czech Republic wants to maintain the quality of life, it needs to move towards sustainability and climate neutrality (P5).

Babiš on the other side is more sceptic about the GD. He thinks that due to current aggression of Putin, the whole GD should be reconsidered (B3). He even thinks that Europe is doing everything to destroy its industry, and everyone laughs at it (B1). As the president he would try to stop the Czech government in GD (B4). He is probably alluding to the fact that as the president he can veto the law that try to implement GD to Czech legislation. With an explanation he can give the law back to the parliament for a new discussion. This way he can slow down implementation of laws fighting climate change, but even if he had become the president, based on Czech Republic's duties as an EU member country sooner or later GD is going to be implemented to the Czech legislation. Ban of the GD is beyond the powers of the president.

Nerudová said something that is mainly heard from the EU leadership. "Stop scaring each other that if we switch to a green economy, that the economy will collapse, that there will be high unemployment. It's not true. The transition to a green economy will create more jobs. It is an opportunity for innovation and growth of the whole society," she said (N7). She is the only one that mentioned also the opportunities that come with the transition and overall adaptation to climate change. In this way, she was the one that looked more into the future. She was also the one that talked about energy sector, which is now discussed mainly in the context of Russia's fossil fuels and unpredictability of the whole country.

#### 5.4 Changes

During collecting of data there were statements that were hard to categorize. These were put into the category called "Changes", because mainly it contains something they suggest, or they would do as the head of country. During presidential campaign there was obvious that climate change is more discussed around young people. Nerudová was often surrounded by young people, and she said that president should attend conferences about climate change. This was not done by the last president, Miloš Zeman. She even suggested to organise COP27 summit (UN climate change summit) in the Czech Republic and search for an international consensus on the approach to environmental protection and sustainability (N8).

Pavel came up with some concrete drafts. His intention to give subsidies for agrienvironmental measures was already mentioned in this thesis. This step should motivate farmers to take measures that have been proven to increase biodiversity and help fight drought. He also suggests planting greenery on the roofs of large-scale warehouses and possibly their partial embedding in the terrain (P7). He shared with the general public the fact that the Czech Republic has one of the highest numbers of large warehouses in the whole Europe. Those measures should mitigate the negative impact of warehouses in the landscape. His other idea is an implementation of PV systems on public buildings and apartment blocks (P7). Out of all three candidates, he was the one who proposed the most concrete solutions/steps.

Nerudová would appeal for a change in energy policy towards independence and community energy (N8), topics that are being discussed more because of the current energy crisis in Europe. She would also invest in new technologies, for example mobile nuclear power reactors (N8). Her formal education and occupation are more evident in her speeches, as she often looks at things from more economic point of view. In the case of Pavel, his previous occupation (he is now retired) was not so obvious.

All main candidates at least once mentioned that we currently must consider the security situation related to the war in Ukraine. "With regard to the security situation, it is necessary now to focus mainly on withdrawing from Russian fossil fuels and to use all available ways to do so. When the situation is stable, a debate on greener solutions can follow," said Pavel (P8). Pavel also thinks that we focus too much on separate areas such as electromobility and tree planting, but we do not deal so much

with the connections between individual areas and the whole chain of consequences (P9).

Nerudová and Pavel had a very similar stance towards the EU leadership, overall, they agreed with the EU's actions. Pavel calls on citizens to perceive the fight against climate change not as extremism, but a practical task (P1). Babiš was more sceptical of the EU's actions and goals.

# 6. Discussion

Why do candidates not talk about climate change much? The most likely answer is that voters are not that interested in this topic. Politicians and candidates in campaigns deal with topics that resonate most in society. Voters ask questions and candidates try to find the right answer for them. An answer that they understand, that satisfies them and is convincing enough. If voters are not looking for these answers, the candidates will not answer them. Certain connection between younger generation and climate change concern is scientifically proven. Why so? Is it because the younger generation is more open to new findings and older generations tend to be more sceptical? Therefore, it is important that the president in this next term discuss it more.

Babiš is the only one from the candidates with a rich political history we can look at. Babiš was a part of the Czech government, and he fought against steps to slow down climate change even at the climate summit in year 2021. Pavel and Nerudová are not politicians. There is not enough data, not even from the past to reliably classified Pavel and Nerudová into one of 12 discourses of climate delay. Further examination of these candidates' statements on environmental issues is appropriate. Especially in the case of Pavel, as he is the new president.

It is obvious that without the involvement of the EU, much less would be done in the Czech Republic than is currently being done to mitigate global warming and the release of GHG associated with it. There is not enough effort in top politics, rather in smaller organizations and among students who are trying to give attention to this topic. The issue of climate change is still perceived by some as mere activism on the part of conservationists. For others who recognize that something needs to be done, truly they do not do much, also for the sake of their own comfort. From experience,

one could say that positive motivation works very well for Czechs, much better than prohibitions, to which they are very sensitive. They probably will not do it for the future and climate protection, but it will serve its purpose.

It is a pity that in some cases people would do even more for the climate, but without systemic changes (such as a network of charging stations for electric cars or better availability and promoting of energy from renewable sources) it will not work.

There were recently two major events that came up unexpectedly and disrupted climate policy plans on the global level. One of them was the Covid-19 pandemic and the second was the war in Ukraine. At the end, the pandemic turned out to be more of an accelerator for some pro-climate actions. Of course, with a distance from his destructive qualities and the impact it had on society. Also, a huge amount of hazardous waste, often after single use, was produced in medical facilities worldwide. This positive effect is unlikely to occur in the case of the war in Ukraine, on the contrary, its major effects divert attention to unexpected situations that people particularly in Europe must deal with. In the pandemic, it was mainly a general slowdown of both production and transport, and people were meeting more in the online world. Currently while the war in Ukraine is still running, people whose financial situation has unexpectedly worsened are not thinking about climate issues. The situation is still very unstable, and the focus is on the immediate future. Events in Europe are crucial for the form of climate policy legislation and overall decision-making on the issue of climate change.

It is indisputable that Petr Pavel's voters expect him to be more involved in issues of climate future than Miloš Zeman was. After all, during his campaign he had overall environment protection as one of the three main goals to focus on if he became the president. He is obviously aware of the problems that would await us in case of inaction and generally agrees that the steps taken by the EU leadership are necessary.

The research question was altogether answered, despite the small amount of data that was collected from all possible credible sources throughout the campaigns from all three candidates.

# 7. Conclusion

It was found that Babiš does not give any importance to climate change and did not give it any space in his campaign. Nerudová talked about problems associated with the climate and expressed her support for climate protection, instead of more concrete steps, she emphasized the opportunities of the transition, mainly the opportunity for innovations. Nerudová and Pavel emphasize the harmfulness of demonisation and scaremongering of environmental topics. Pavel in his speeches talked about problems related to the climate, expressed his support for climate protection and was more concrete in steps and possible solutions he would do or support as the president. Because of his victory, there will be a possibility to later examine whether he fulfilled his promises and to what extent. After the announcement of Pavel's victory, Danuše Nerudová let it be known that she plans to continue being active in the public space, talk about important topics and propose solutions.

More valuable data could be collected if journalists and reporters asked all candidates the same set of climate-related questions. In that case, different approaches of the candidates to each question/specific issue could be clearer. By refusing to participate in many debates and interviews, Babiš demonstrated a certain lack of interest in discussing currently important topics. Politicians and candidates should be more specific in their intentions and avoid general answers. Giving general answers or describing facts/reality is not as beneficial to voters as own opinions and proposals. Pavel as the president does not want to demonise GD and proposed concrete steps like planting greenery on the roofs of warehouses and implementation of photovoltaic systems on public buildings and apartment blocks. He said that as the president he would patronise civic initiatives and private projects seeking to minimise the impact of human activity on the landscape. He plans to convene expert meetings, propose solutions and pressure politicians to implement those solutions.

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# List of tables and figures:

Table 1. Full list of all statements, including their categories, subcategories and sources. Table created from the author's own data.

Figure 1. Model of projected temperature increase for different scenarios till the year 2100 (Center for Science Education, 2021: Predictions of Future Global Climate. (online) [cited 2023.02.02], Retrieved from <<u>https://scied.ucar.edu/learning-zone/climate-change-impacts/predictions-future-global-climate</u>>.)

Figure 2. All 12 discourses of climate delay with example statements (Leolinne, 2020: Discourses of Climate Delay. (online) [cited 2023.12.19], Retrieved from <<u>https://www.leolinne.com/?portfolio=discourses-of-climate-delay</u>>.