**Part II: Are the articles useful?**

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| Article 1: Did the climate crisis enable the coronavirus pandemic? *EcoWatch.*  <https://www.ecowatch.com/climate-change-coronavirus-2650417493.html> | |
| How useful is the article for answering the question? | **1 2 3 4 5 6 (7) 8 9 10** |
| Please explain your rating in detail (e.g., why don’t you rate the article higher or lower than you did?). | **Comparing to other article, it does give some objective elaboration on the connection between climate change and bat virus with the support from the creditable scientific report. Meanwhile, Covid-19 seems to be originated from bat virus, as stated in the article. It somehow provide an idea which there is a connection between Covid-19 and Climate Change but other article cannot provide an argument why there is or there is no connection between the outbreak of Covid-19 and climate change. Thus, this article is rated highest.** |
| How did you reach this judgment? | **This article can directly show there is a connection between climate change and outbreak of covid-19. Thus, I rate it with higher score (higher than 5). By this article, I do find out climate change can cause the growth in number of different type of virus, which may respond to the connection between covid-19 and climate change. However, it cannot provide an objective elaboration / cite any creditable scientific report to show that covid-19 is originated from bat virus. The article is less convinced when it is missing. In other words, the article cannot develop the argument with concrete elaboration. Thus, I won’t rate this article higher than 7.** |

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| Article 2: Warmer temperatures reduce COVID-19 threat, Homeland Security reports. *Climate Realism.* <https://climaterealism.com/2020/05/warmer-temperatures-reduce-covid-19-threat-homeland-security-reports/> | |
| How useful is the article for answering the question? | **1 2 3 4 5 (6) 7 8 9 10** |
| Please explain your rating in detail (e.g., why don’t you rate the article higher or lower than you did?). | **I rate this article lower than article 1. It is because this article can only shows that climate change (global warming) lower the activity of virus and cannot relate to the outbreak of covid-19, while article 1 can shows that climate change would be one of the reason of outbreak of covid-19. I rate this article higher than article 3. It is because this article can mainly focus on the how climate change affect the activity of virus, in other world, higher the temperature and lower virus activity may show that climate change is not one of the factor of outbreak of covid-19, while article 3 is mainly focus on the impact of pandemic on the climate change. Thus, I believe article 3 is less relevant than article 2.** |
| How did you reach this judgment? | **It can integrate the objective, creditable scientific report in the article to show that the climate change does lower the activity of covid-19. However, as we all know, the outbreak of covid-19 starts in winter, in other words, the article can only shows global warming make pandemic less severe. It cannot develop an argument to show that there are no connection between climate change and outbreak of covid-19.** |

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| Article 3: Is COVID-19 a symptom of climate change? *Jerusalem Post.*<https://www.jpost.com/health-science/is-covid-19-a-symptom-of-climate-change-675321> | |
| How useful is the article for answering the question? | **1 2 3 4 (5) 6 7 8 9 10** |
| Please explain your rating in detail (e.g., why don’t you rate the article higher or lower than you did?). | **I rate this article lower than other 2 articles because it mainly talk about the effect caused by pandemic on the carbon footprint/climate change, while it contains less relevant information than other 2 articles. However, It can provide objective information from both sides for the reader. For example, it also includes the comment from the lead of the paper to show that climate change may not have the connection with outbreak of covid-19. Thus, I will not rate it lower than 5.** |
| How did you reach this judgment? | **The article uses lots of paragraphs to demonstrate the effect caused by pandemic on the carbon footprint/climate change, while few paragraphs to show that COVID-19 may not be a symptom of climate change by citing creditable sources. It consists some irrelevant content to the topic so I wont rate it higher than 5. However, at least, the article has some sentences with concrete example that are related to the topic. That is why I rate it as 5.** |

**Part III: Which criteria are important?**

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| Name of evaluation criterion | What does this criterion mean? | Degree of importance  (1 to 4) | Why is this criterion important to your evaluation? |
| Convincing | Whether the article is convincing and supported by creditable scientific report | 3 | When the article is convincing, the elaboration of the arguments stated in that article must be concrete and supported by creditable scientific report. Thus, the well-structured, convincing articles can give me detailed background of the essay topic, at the same time, it can deepen my understanding on the essay topic, so that I can elaborate my own argument in a more convincing way by providing more objective opinion and more concrete examples. If I only read those less convincing articles from the Internet, I cannot see the whole picture of the socioscientific issue and most likely to provide subjective idea in the essay which is fatal. |
| Correctness | Whether the source provide correct information rather than misinformation | 4 | When the writer is unknow, it is difficult to identify the source I read is correct or not. For example, the sources from Wikipedia can be edited by everybody, thus, some people may post some misinformation in the Wikipedia and my argument cannot stand with that misinformation. However, by finding a source which written by professions from authoritative website, the information would be more objective and most likely to be correct information. In this case, my logical deduction in my essay can be correct. Moreover, finding out-dated sources is fatal as some information is no longer correct in the current society. |
| References | Whether the readers can easily find out the origin of those creditable sources. | 3 | When the article provides clear citation and reference, I can check with those reference to seek for a deeper understanding on the topic to develop a stronger stand by providing concrete example or detailed statistic from those reference. If those references cannot be public accessed, I cannot integrate the article and my essay well as I only has a little understanding on the topic. |

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| Name of evaluation criterion | What does this criterion mean? | Degree of importance  (1 to 4) | Why is this criterion important to your evaluation? |
| The original language of the sources | Whether the original language of the sources is English or not. | 2 | If the original language of the sources is not English, the transcript meaning of the sources may not be accurate enough to support my argument as it will be a slightly different between the original idea of the sources. |
| Diversity | Whether the article can provide diverse idea or arguments. | 1 | If the article can provide diverse idea or argument, I may spend fewer time on looking other sources for my critical thinking. Meanwhile, the diverse argument from the sources can also boost my understanding on the whole picture of the topic. |

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| Is there a connection between climate change and the outbreak of COVID-19, in your opinion? If so, what is the connection? If not, why not? Please explain and justify your conclusion by referring to the articles that you read. Write clearly and elaborate the information, preferably in your own words |

More creditable papers related to the SARS-CoV-2 virus are published in recent two years, the discussion on the outbreak of COVID-19 is becoming highly controversial nowadays – Whether there is any connection between climate change and the outbreak of COVID-19. This essay will first provide three connections between the outbreak of COVID-19 and Global Warming from social, environmental aspect.

Firstly, from social aspect, Global Warming massifies the wild animal market and connects to the outbreak of COVID-19. According to Article 1, It is found that the biodiversity of bat in southern China is increased in the recent year because of climate change (Robert et al., 2021, as cited in Olivia, 2021). The traditional Chinese people believes that bat is the symbol of unlucky, so people are willing to catch the bats and sell them to the wild-animal market for profit. In other words, increase in number of bats can massify the wild-animal market in southern China, such as Huanan Market. At the same time, southern China citizens can buy the wild animals in a more inexpensive way because of sufficient supply and consumption of wild animals became popular. Huanan market in Wuhan where originate a lot of initial cases of COVID-19 (Wu, F. et al., 2020, as cited in Kristian et al., 2020). Although there is no report prove that COVID-19 is originated from wild-animal market right now, it is a fact that there are infections among the crowded Huanan market in the beginning of the outbreak of COVID-19. Thus, climate change seems to massify the wild-animal market, like Huanan Market in Wuhan, which serves a platform to spread the COVID-19 among the citizens.

Secondly, from environmental aspect, climate change provides a site for COVID-19 to mutate. Although the lead author, Robert Beyer, of ‘Shifts in global bat diversity suggest a possible role of climate change in the emergence of SARS-CoV-1 and SARS-CoV-2’ stated that (2020), ‘Our paper is a long way away from saying the pandemic would not have happened without climate change’, climate change does be a factor of growth in number of type of bat-borne coronaviruses (Beyer, R.M. et al., 2021). Increasing of bat-borne coronaviruses in the environment can serve a mutation site for COVID-19, which is 96% equivalent to whole-genome level to bat-borne coronaviruses (Peng Zhou et al., 2020). While there is no evidence to show that COVID-19 is originated from bat, it is true that COVID-19 is a fusion of bat-borne coronaviruses and other virus. Within the site, COVID-19 can be more infectious and severe by mutation. Thus, climate change is likely to have connection with the outbreak of COVID-19

It is believed that climate change can lower the activity of the coronaviruses because higher the temperature and humidity can remove the protective gel of the virus. In other words, the virus will be dead within few days, and climate change seems to alleviate the severity of the outbreak of COVID-19 (Burnett, 2020). Thus, some believe that there is no connection between climate change and the outbreak of COVID-19. However, in another perspective, climate change can affect the pattern of the outbreak of the COVID-19. In 2019 Winter, the covid was only spreading in Wuhan but not spreading around the world within few weeks. It shows the coronaviruses was not active in winter due to climate change. The climate change still set up the connection to the outbreak of COVID-19.

In short, there are connections between climate change and the outbreak of COVID-19 from environment aspect, social aspect and the spreading pattern.

Reference:

Andersen, K. G., Rambaut, A., Lipkin, W. I., Holmes, E. C., & Garry, R. F. (2020). The proximal origin of SARS-CoV-2. Nature Medicine, 26(450–452). <https://doi.org/10.1038/s41591-020-0820-9>

Beyer, R. M., Manica, A., & Mora, C. (2021). TEMPORARY REMOVAL: Shifts in global bat diversity suggest a possible role of climate change in the emergence of SARS-CoV-1 and SARS-CoV-2. Science of the Total Environment, 767, 145413. <https://doi.org/10.1016/j.scitotenv.2021.145413>

Burnett, H. S. (2020, May 8). Warmer Temperatures Reduce COVID-19 Threat, Homeland Security Reports. ClimateRealism. <https://climaterealism.com/2020/05/warmer-temperatures-reduce-covid-19-threat-homeland-security-reports/>

Climate change may have driven the emergence of SARS-CoV-2. (2021, February 5). University of Cambridge. <https://www.cam.ac.uk/research/news/climate-change-may-have-driven-the-emergence-of-sars-cov-2>

Did the Climate Crisis Enable the Coronavirus Pandemic? (2021, February 9). EcoWatch. <https://www.ecowatch.com/climate-change-coronavirus-2650417493.html>

Is COVID-19 a symptom of climate change? (n.d.). The Jerusalem Post | JPost.com. <https://www.jpost.com/health-science/is-covid-19-a-symptom-of-climate-change-675321>

Zhou, P., Yang, X.-L., Wang, X.-G., Hu, B., Zhang, L., Zhang, W., Si, H.-R., Zhu, Y., Li, B., Huang, C.-L., Chen, H.-D., Chen, J., Luo, Y., Guo, H., Jiang, R.-D., Liu, M.-Q., Chen, Y., Shen, X.-R., Wang, X., & Zheng, X.-S. (2020). A pneumonia outbreak associated with a new coronavirus of probable bat origin. Nature, 579(7798). <https://doi.org/10.1038/s41586-020-2012-7>