

Correlation of Increasing Public Health Status with the Use of Electric Vehicles

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ABSTRACT

Climate change that occurs is caused by global warming. The impacts of climate change can be direct and indirect and can be felt by all countries in the world. Climate change can have an impact on changes in human health due to uncontrolled pollution. Efforts are needed to overcome health problems due to climate change due to global warming. This article aims to discuss the correlation of increasing public health status with the use of electric vehicles.

Keywords: *Electric Vehicles, Public Health Status, Global Warming*

1. INTRODUCTION

The environment is a determinant of health that can affect public health, as well as behavioral factors and medical services, genetics and population. At this time there has been a change in the environment including global climate change which has become a very important issue. Climate change is caused by global warming and the greenhouse effect. Climate change that occurs can be an increase in temperature, change in humidity and an increase in rainfall which are risk factors for the degree of public health caused by infectious diseases through air, water and vector [1]. These changes vary from one part of the world to another. Indonesia, which is located on the equator, experiences another impact with cold countries. The effects of climate change can be direct or indirect effects such as changes in temperature, increased UV radiation and air pollution, or increased incidence of food availability, infectious and non-communicable diseases and population movement. These effects can be exacerbated in Indonesia due to socio-economic factors such as population density, poverty, personal hygiene, clean water availability and unequal income distribution. Indonesia is also a breeding ground for endemic diseases such as malaria and diarrhea. Therefore, it is necessary to make various efforts to anticipate climate change caused by global warming and the greenhouse effect. One of the efforts intensified by the government is the use of electric vehicles [2].

The government strongly encourages the use of electric cars, this was conveyed in President Joko Widodo's speech at the annual financial services industry event in 2020 at the grand ballroom of The Ritz Carlton Pacific Place Jakarta that only electric cars will one day be allowed to pass in the new capital city. Jokowi wants to build a new capital city with a sophisticated and environmentally friendly transportation system based on autonomous technology. The statement is also accompanied by a ban on the use of conventional motorized vehicles in the new capital area of Indonesia². In addition, the form of government support is stated in Government Regulation (PP) No. 55 of 2019 concerning the Accelerating battery electric vehicle programs for road transport, the government is ready to provide Fiscal incentives related to electricity-based use by providing import duty incentives on the import of electricity-based vehicles, sales tax incentives on luxury goods, import duty incentives on the import of machinery, goods and materials in the context of investment, incentives for making SPKLU equipment, export financing incentives and so on.

2. GLOBAL WARMING

The increase in exhaust gas pollution causes high air pollution which damages the ozone layer system which in turn causes global warming. Global warming is the process by which the average temperature of the

energy use. Electric vehicles are expected to be the right solution for reducing greenhouse gas emissions in the transportation sector. Electric vehicles are expected to increase energy efficiency and reduce carbon dioxide emissions [6].

The development of electric cars is growing significantly. In 2015 the number of electric cars reached 1.2 million, up 50% from the previous year. So far, electric cars have only developed in countries that are members of the EVI (The Electric Vehicles Initiative), Created in 2009 by the Department of Clean Energy (CEM), the Intergovernmental Policy Forum is dedicated to accelerating the adoption of electric vehicles worldwide. 20 million electric vehicles by 2020⁶. 16 countries have joined EVI, including Canada, China, France, Germany, India, Italy, Japan, Korea, Netherlands, Norway, Portugal, South Africa, Spain, Sweden, United Kingdom and the United States. In Indonesia, the government has announced that electric cars will be available for the next 3 to 5 years. In contrast to conditions in the country, Norway has already implemented this policy. More than 50 percent of the cars in circulation have used hybrid engines, even electric ones. This is due to the convenience provided by the local government for environmentally friendly car drivers. Electric car users are taxed cheaper than gasoline-fueled cars. In fact, the Norwegian government plans to eliminate taxes for electric car owners. This is based on the financing for electric cars is smaller than gasoline engines. Interestingly, electric car owners do not have to pay for parking and toll fees. They are also allowed to use a special bus lane when the road is jammed [6].

The use of electric cars in Indonesia is supported by the government. This was conveyed in President Joko Widodo's speech at the annual financial services industry event in 2020 at the grand ballroom of The Ritz Carlton Pacific Place Jakarta that only electric cars will one day be allowed to pass by in the new capital city. Jokowi wants to build a new capital city with a sophisticated and environmentally friendly transportation system based on autonomous technology [2]. In addition, the form of government support is stated in Government Regulation (PP) No. 55 of 2019 concerning the Acceleration of the Battery Electrical Vehicle Program for Road Transportation, the government is ready to provide fiscal incentives related to electricity-based used by providing import duty incentives on the import of electricity-based vehicles, Exemption from sales tax on luxury goods, exemption from import duties on the import of equipment, goods and materials in the context of investment, exemption from production of SPKLU equipment, exemption from export finance, etc. Electric vehicles are expected to increase energy efficiency and reduce carbon dioxide emissions to reduce global warming affecting public health [7].

5. CONCLUSION

The increase in exhaust gas pollution causes high air pollution which damages the ozone layer system which in turn causes global warming. Global warming is the process by which the average temperature of the atmosphere and the Earth's surface rises due to increases in greenhouse gas concentrations as a result of human activity. The impacts of climate change can be direct, such as temperature changes, increased ultraviolet radiation and air pollution, or indirect, such as food availability, increased communicable and non-communicable diseases, and population movements. The International Energy Agency says that by 2050, the global transport sector should contribute about a fifth of the reduction in greenhouse gas emissions from energy use. Electric vehicles are expected to be the right solution for reducing greenhouse gas emissions in the transportation sector. Electric vehicles are expected to increase energy efficiency and reduce carbon dioxide emissions.

REFERENCES

- [1] Dewi, L. R. Yulia, *Perubahan Iklim Dan Potensi Gangguan Kesehatan Di Indonesia*. Bagian Biologi Fakultas Kedokteran Universitas Sebelas Maret. Biologi, Sains, Lingkungan, dan Pembelajarannya dalam Upaya Peningkatan Daya Saing Bangsa, 2010.
- [2] M. Aziz, dkk, *Studi Analisis Perkembangan Teknologi Dan Dukungan Pemerintah Indonesia Terkait Mobil Listrik*. Tesla. Vol. 22. No. 1, 2020.
- [3] CDC, *Preparing For The Regional Health Impacts Of Climate Change In The United States*. Climate and Health Program, 2020.
- [4] R. Utina, *Pemanasan Global: Dampak dan Upaya Meminimalisasinya*. Biologi FMIPA Universitas Negeri Gorontalo, 2015.
- [5] Raksanagara, S. Ardini, Arisanti, Nita dan F. Rinawan, *Dampak Perubahan Iklim Terhadap Kejadian Demam berdarah di Jawa Barat*. JSK, Volume 1 Nomor. 1, 2015.
- [6] L. Parinduri, Yusmartato dan T. Parinduri, *Kontribusi Konversi Mobil Konvensional Ke Mobil Listrik Dalam Penanggulangan Pemanasan Global*. *Journal of Electrical Technology*, Vol. 3, No. 2, 2018.
- [7] *Peraturan Presiden Republik Indonesia Nomor 55 Tahun 2019 Tentang Percepatan Program Kendaraan Bermotor Listrik Berbasis Baterai (Battery Electric Vehicle Untuk Transportasi Jalan)*.