



MINISTRY OF ECONOMY  
DEPARTMENT OF STATISTICS MALAYSIA

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COMPENDIUM OF ENVIRONMENT STATISTICS, MALAYSIA 2021

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**ENVIRONMENT STATISTICS 2021**

**Mother nature takes a break during MCO implementation**

Department of Statistics Malaysia (DOSM) has published the Compendium of Environment Statistics, Malaysia 2021 that presents environmental statistics on six (6) components namely Environmental Conditions & Quality; Environmental Resources & Their Use; Residuals; Extreme Events & Disasters; Human Settlements & Environmental Health; and Environmental Protection, Management & Engagement. The compilation of these statistics is based on the Framework for the Development of Environment Statistics (FDES), United Nations, 2013.

The world was affected by COVID-19 in 2020 and on 11th March 2020, World Health Organization (WHO) has declared a pandemic as more than 118,000 cases of the coronavirus illness in over 110 countries and territories around the world and these figures continues to rise. By the end of 2020, WHO reported a total of 83,638,175 confirmed cases of COVID-19 and 1,911,715 deaths were recorded worldwide. Malaysia was not spared and the COVID-19 pandemic consequence can be observed from economic and social aspects. In 2020, the Malaysia Gross Domestic Product contracted to 5.6 per cent since 2010. Meanwhile, the net flows Foreign Direct Investment contracted by 54.8 per cent to RM14.64 billion (2019:RM32.36 billion) and total trade reduced by RM60 billion to RM1.78 trillion. The unemployment rose to the highest level since 1992 to record 4.5 per cent. The main action taken by the government in an effort to contain the COVID-19 pandemic was to implement the Movement Control Order (MCO) which means total lock down of business activities except essential business as well as restriction of movement and interstate travelling was not allowed. Furthermore, schools and colleges were also closed. Meanwhile under Conditional Movement Control Order (CMCO) and Recovery Movement Control Order (RMCO), government as gradually opened business activities and encouraged work from home and Home based Teaching & Learning was introduced for education. The Standard Operation Producers (SOP) was introduced to eliminate the spread of COVID-19 become a new norm for the population. The COVID-19 pandemic effected environment, business activities and human movement and this led an improvement in a few environmental indicators.

Throughout the implementation of MCO, the country has recorded more days of "good" and "moderate" air quality status for 2020. Kapit station recorded the highest with 359 days of air quality "good" status in 2020 as compared to 263 days recorded in the previous year. Air Pollution Index (API) readings showed a decrease in air pollutant levels, especially in major cities such as Pasir Gudang, Petaling Jaya, Shah Alam and Cheras, Kuala Lumpur. The decline is due to the reduction of activities and less emission of pollutants into the air such as motor vehicle smoke emissions, industrial chimney smoke emissions and open burning activities.

Air pollutant substance such as Particulate Matter ( $PM_{10}$  and  $PM_{2.5}$ ), Ground level Ozone ( $O_3$ ), Carbon Monoxide (CO) and Sulphur Dioxide ( $SO_2$ ) showed a declining trend during the implementation of MCO and CMCO. However, this air pollutant substance increased during RMCO as more business is allowed to

operate and less restriction on the movement. In the nutshell, from March to December 2020,  $PM_{10}$  range between 17.11 to 22.81 micro gram cubic meters as compared to 19.09 to 64.11 micro gram cubic meters in 2019. Meanwhile, CO reading was 0.473 to 0.620 parts per million (March-December 2020) as compared to 0.565 to 0.888 parts per million in same period previous year.

MCO also affected river water quality in 2020. Based to the results of the monitoring of 144 river basins by the Department of Environment (DOE), it showed that 104 or 72.2 per cent river basins were in the clean category as compared to 85 recorded in 2019. Furthermore, 33 river basins were classified as moderately polluted (2019: 49 river basins) and seven (7) in contaminated category (2019:10 river basins).

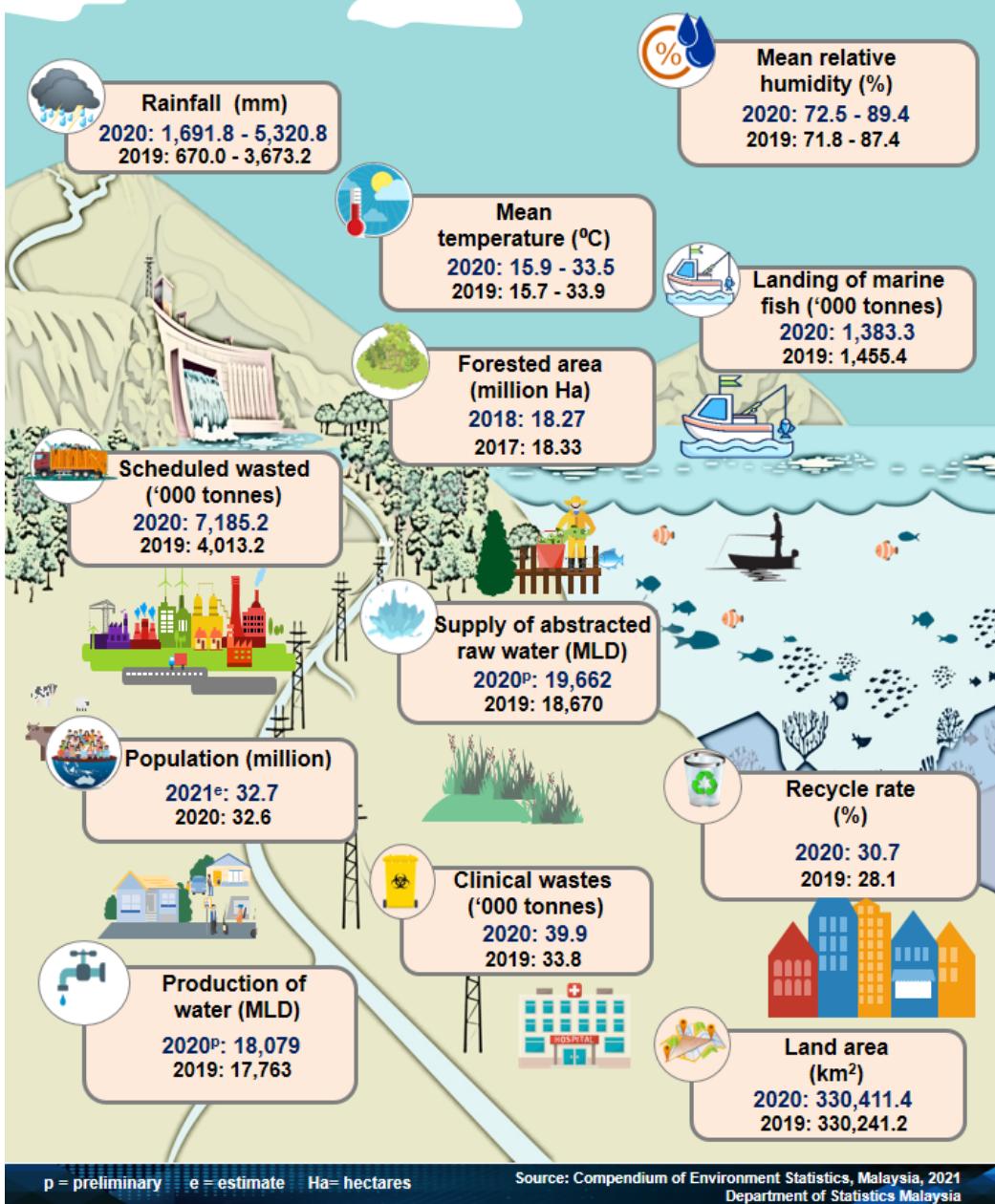
On the other hand, the quantity of clinical waste generated in 2020 rose 18.1 per cent or 39.9 thousand metric tonnes as compared to 33.8 thousand metric tonnes in 2019. This increase was attributed to the used of personal protective equipment (PPE) and COVID-19 test equipment in handling of COVID -19 patients in health facilities and quarantine centers. Three states recorded the highest amount of clinical waste, namely Selangor (9.7 thousand metric tonnes), Sarawak (4.1 thousand metric tonnes) and W.P. Kuala Lumpur (4.1 thousand metric tonnes). In addition, quantity of scheduled waste generated by industries recorded 7,185.2 thousand metric tonnes in 2020, an increase of 79.0 per cent compared to 4,013.2 thousand metric tonnes reported in 2019. This was contributed by power plant and water treatment plant industries which is categorised as essential services. In terms of states, Selangor contributed the highest amount of scheduled waste at 28.5 per cent followed by Johor (16.8%) and Negeri Sembilan (16.2%).

The new norms such as working from home, Home based Teaching & Learning program and limited movement control order which contained people at their residents have affected the consumption of water. The metered water consumption for the domestic sector showed an increase of 5.2 per cent in 2020. However, the non-domestic sector decreased by 8.0 per cent in 2020 as compared to 2019 as businesses were affected by the MCO in terms of limited business hours and some business was totally closed during the first MCO.

The full publication of Compendium Of Environment Statistics 2021 can be downloaded through eStatistik portal



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