

PRESS RELEASE

Compendium of Philippine Environment Statistics Component 1: Environmental Conditions and Quality

Date of Release: 27 June 2023
Reference No. 2023 - 099

The Compendium of the Philippine Environment Statistics (CPES) is a compilation of environment and related socio-economic statistics collected from various government agencies. The CPES has six components, namely: 1) environmental conditions and quality; 2) environmental resources and their use; 3) residuals; 4) extreme events and disasters; 5) human settlements and environmental health; and 6) environmental protection, management, and engagement.

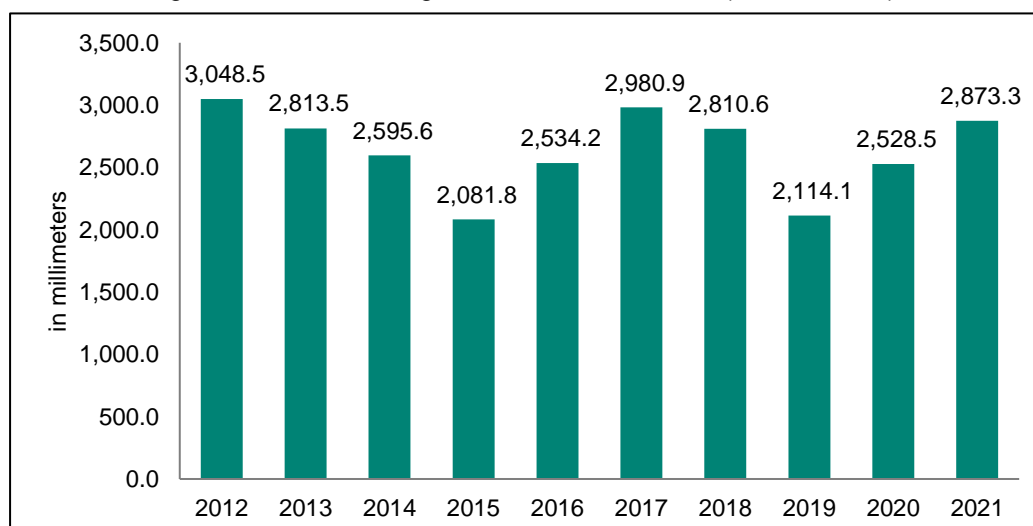
The first component of the Compendium covers statistics on the physical, biological, and chemical characteristics of the environment and their changes over time. This component has three subcomponents: physical conditions; land cover, ecosystems, and biodiversity; and environmental quality.

Subcomponent 1.1: Physical Conditions

The Physical Conditions focuses on statistics on the meteorological, hydrographical, geological, and geographical conditions, and soil characteristics.

Over the period 2012 to 2021, the annual average amount of rainfall fluctuated. The highest amount of rainfall was reported in 2012 at 3.05 thousand millimeters, while the lowest was recorded in 2015 at 2.08 thousand millimeters. The monthly amount of rainfall was measured at several monitoring stations across the country. The annual amount per monitoring station is calculated as the sum of the monthly measurements. Statistics on the amount of rainfall are inputs to four indicators of the Global Set of Climate Change Statistics and Indicators (GSCCSI)¹. (Table 1.2 and Figure 1)

Figure 1. Annual Average Rainfall, 2012 to 2021 (in millimeters)



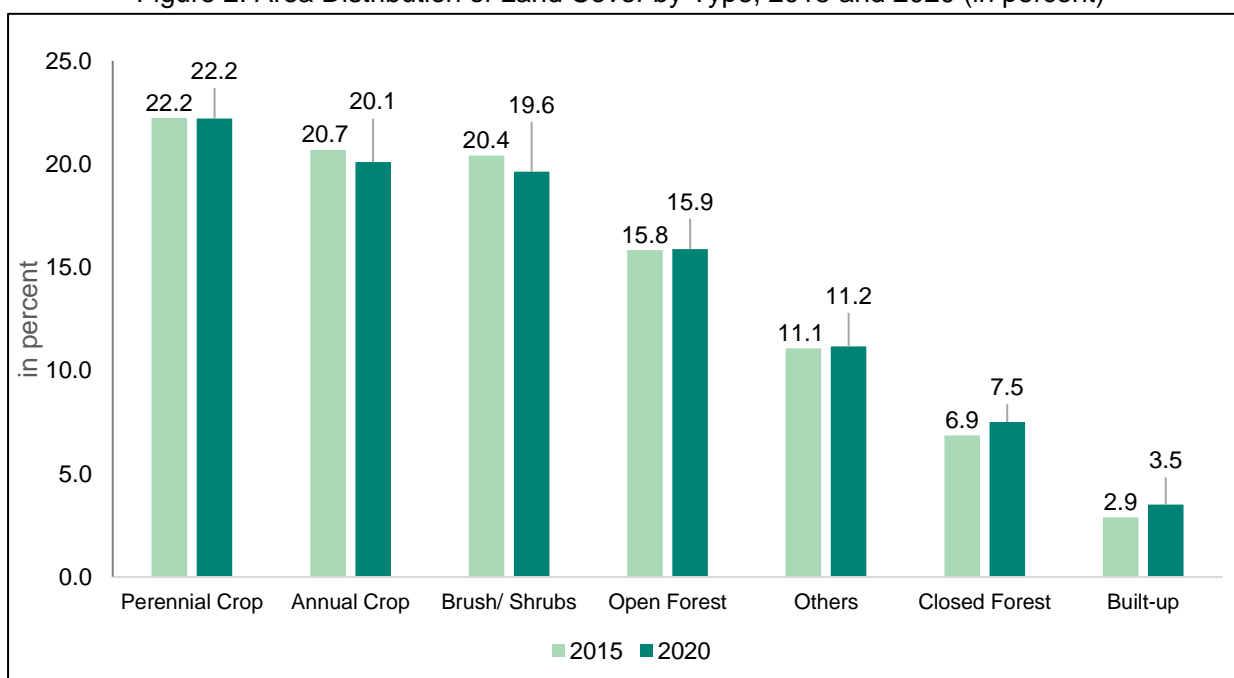
Source: Philippine Atmospheric, Geophysical and Astronomical Services Administration

Subcomponent 1.2: Land Cover, Ecosystems and Biodiversity

Land cover includes statistics on the extent, as well as the physical and spatial characteristics of land cover. Changes in land cover are the result of natural processes and changes in land use. Meanwhile, ecosystems and biodiversity cover information on the physical quantitative as well as qualitative information and statistics about a country's main ecosystems, including the extent, chemical and physical characteristics, and biological components (biodiversity) of the ecosystems.

In 2015, closed forests comprised 6.9 percent, or 2.03 million hectares of the Philippine land cover. This expanded to 7.5 percent, or 2.22 million hectares in 2020. Out of the total closed forest area, 37 percent of which or 0.82 million hectares are considered protected areas. Built-up areas also increased from 2.9 percent or 0.85 million hectares in 2015 to 3.5 percent or 1.04 million hectares in 2020. On the other hand, the percent share of brush/shrubs land and annual crops reduced from 20.4 percent and 20.7 percent in 2015 to 19.6 percent and 20.1 percent in 2020, respectively. (Table 1.10 & 1.13 and Figure 2)

Figure 2. Area Distribution of Land Cover by Type, 2015 and 2020 (in percent)



Source: National Mapping and Resource Information Authority

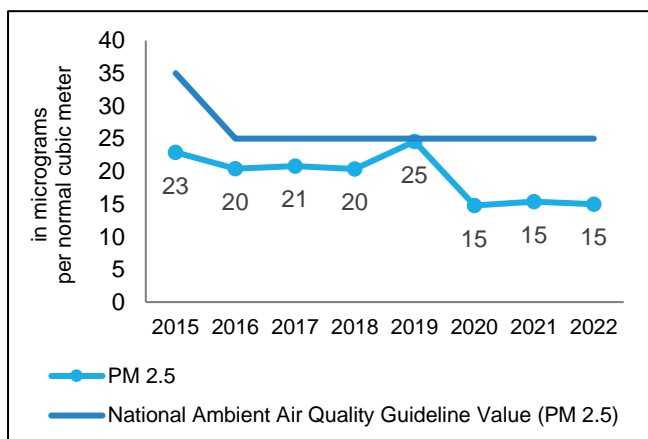
Subcomponent 1.3: Environmental Quality

Statistics on environmental quality are important in monitoring pollution impacts on the human sub-system and ecosystems. The concentration of air pollutants, suspended solid particles, and other gases are the statistics compiled in this subcomponent. Air quality is measured by monitoring stations which are located mostly near the major sources of pollution.

The National Ambient Air Quality Guideline Value (NAAQGV) for Particulate Matter (PM)_{2.5} was 35 micrograms per normal cubic meter in 2015 and was reduced to 25 micrograms per normal cubic meter starting 2016. From 2015 to 2022, the annual average PM_{2.5} concentration level was consistently below the NAAQGV except in 2019. In this year, concentration level reached 25 micrograms per normal cubic meter which was within the NAAQGV level. (Table 1.23 and Figure 3)

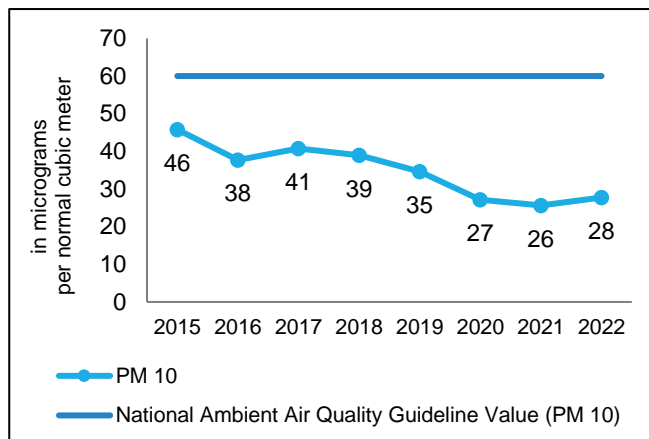
From 2015 to 2022, the annual average PM₁₀ concentration fell below the NAAQGV of 60 micrograms per normal cubic meter. (Table 1.22 and Figure 4)

Figure 3. Annual Average Concentration Level of PM_{2.5}, 2015 to 2022



Source: Environmental Management Bureau, DENR

Figure 4. Annual Average Concentration Level of PM₁₀, 2015 to 2022



Source: Environmental Management Bureau, DENR

Statistics on the concentration levels of PM_{2.5} and PM₁₀ serve as inputs to Sustainable Development Goals (SDG) indicator 3.9.1 *Mortality rate attributed to household and ambient air pollution* and to SDG indicator 11.6.2 *Annual mean levels of fine particulate matter in cities*. These statistics are also included in the GSCCSI under the topic of Climate Change and Human Health.

The Compendium of Philippine Environment Statistics follows the United Nations Framework for the Development of Environment Statistics (FDES) 2013. Among the 141 statistics identified in the FDES, a total of 45 statistics were compiled for Component 1 for this edition of the Compendium.

These statistics are useful in compiling ecosystem condition accounts as described in the System of Environmental-Economic Accounting Ecosystem Accounting. These are also linked to the GSCCSI, particularly, on the thematic area of Impacts. In addition, 35 statistics out of the 49 statistics that were found in the global set across all thematic areas are included for this component.

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VRI/VMB

¹ GSCCSI is a statistical framework created to support countries in preparing own sets of climate change statistics and indicators in accordance with specific concerns. It consists of five thematic areas: Drivers, Impacts, Vulnerability, Mitigation and Adaptation.