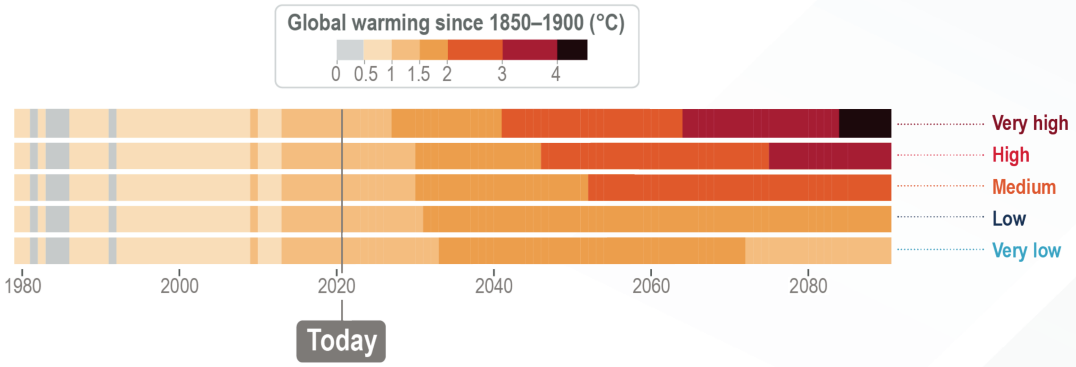
LINKS BETWEEN ANALYZING PERIODS AND GLOBAL WARMING LEVELS

Any analysis of climate change trends in Taiwan includes historical trends and projections. Long-term trends are calculated using meteorological station data. For climate change projections, the trend analysis is applied to statistically downscaled data derived from the climate model projections provided by the CMIP6. The assessment evaluates projected climate changes over three 20-year periods—the short term (2021–2040), midterm (2041–2060), and long term (2081–2100)—by using 1995–2014 climatology as the baseline. When comparing these periods to Global Warming Levels (GWLs)—the rise in global average temperature relative to preindustrial levels—GWL 1.5°C corresponds to the short-term period, GWL 2°C to the midterm period, and GWL 3°C and GWL 4°C, to the long-term period, depending on the degree of mitigation (Figure).



Figure

Timing of varying levels of global surface air temperature warming (relative to preindustrial levels, 1850–1900) under various emission pathways. The CO_2 emission concentration scenarios are very low (SSP1-1.9), low (SSP1-2.6), medium (SSP2-4.5), high (SSP3-7.0), and very high (SSP5-8.5). (Adapted from the IPCC Assessment Report 6 [AR6], working group I [WGI], Infographic TS.1.)