





Climate services provide science-based information and predictions that can empower decision-makers to manage the risks of climate variability and change and adapt to climate change. To assist governments to build capacity for operational climate services at the national and regional levels, WMO and its partners have established the Global Framework for Climate Services (GFCS).

Thanks to continued scientific progress, seasonal to

water resources, disaster risk, public health and other climate-sensitive sectors. Climate services can also provide guidance on long-term investments and strategies that may be affected over the coming years and decades by global climate change.

By incorporating science-based climate information and prediction into planning, policy and practice, climate services can offer real benefits for society.

multiyear climate forecasts and predictions can now be used to produce actionable information about agriculture,





Governments and organizations will increasingly offer seamless weather and climate services for managing a variety of risks on different timescales (*source: WMO Disaster Risk Reduction Programme*)



As shown by this graph, when the Indian summer monsoon brings more rain than average, crop yields go up, and when the rain is below average, yields fall. By improving seasonal predictions of the next monsoon, forecasters will be able to assist farmers to anticipate the likely size of their crop and prepare their farming and marketing strategies (sources: CEIC; Indian Meteorological Department; RBA)





Dengue risk High suitability Low suitability Unsuitable/non-endemic

Exceptional heat waves can cause deaths and health problems and harm the natural and humanmade environment. This graph shows the number of record hot day maxima at Australian climate reference stations, with a clear upward trend in the first decade of the 21st century *(source: Australian Bureau of Meteorology)* Climate and meteorological information can make an important contribution to understanding where and when dengue cases are likely to occur. For example, statistical models, based on correlations between climate and other environmental variables and the incidence of dengue in areas with good epidemiological and entomological surveillance, can be used to predict the likelihood of transmission where disease surveillance is weak or absent. Such information can also be used to alert authorities to the potential spread of dengue by mapping where the climate and other conditions either are, or may become, more suitable for transmission. Such information can be shared with neighbouring countries for sound planning and effective control of transmission (*source: WMO/WHO Atlas of Health and Climate*)