

What do a health-care provider, a farmer, a water manager and a first responder have in common? Each uses climate information to do his or her job properly.

The health-care provider uses forecasts of droughts, heatwaves and floods to ensure that medical services and supplies are available where and when needed. The farmer depends on seasonal forecasts to decide what crops to plant and when to irrigate or harvest. The water manager analyses climate information in order to estimate available water supplies, and the first responder coordinates with forecasters to prevent storms and other hazards from turning into disasters that destroy lives and property.

These professionals and countless others rely on increasingly accurate and user-friendly climate services to provide them with information for making decisions. Drawing on rapid advances in climate science and a growing understanding of how people use climate information, climate services are an essential decision-support tool for the twenty-first century.



WHAT IS A CLIMATE SERVICE?

Climate services offer science-based information and forecasts that empower decision-makers to manage the risks and opportunities of climate variability and climate change. Providers of climate services consult with users to determine what kind of information they need, when and how often, and in what format. They then deliver the information and assist their clients to interpret and apply it.

Seasonal and multi-year climate forecasting has advanced to the point where it can now provide actionable information. Growing confidence in climate forecasts has been made possible by supercomputer-based modelling, improved observations from satellites and other instruments and a greater understanding of large-scale climate patterns such as the El Niño-Southern Oscillation. Similarly, scenarios of future climate change based on increasingly reliable models can be used to guide investments and strategies for the coming decades.

Sophisticated climate services combine climate forecasts with information from other sectors to inform decisions on public health, agriculture, water management, disaster risk and other priorities. For example, forecasts of drier-than-average periods in the Sahel can be integrated with information about a population's health and maps of available health facilities to support the timely roll-out of vaccines ahead of a meningitis outbreak. A monsoon forecast with information on past cropping decisions and market trends can support decisions on food security. Scenarios of future sea-level rise combined with population trends can shape long-term investments in coastal housing and infrastructure.

THE GLOBAL FRAMEWORK FOR CLIMATE SERVICES

The international community established the Global Framework for Climate Services (GFCS) to promote operational climate services at the national and regional levels. This intergovernmental partnership is supported by the United Nations and other international organizations with diverse, cross-cutting mandates. It is overseen by the Intergovernmental Board on Climate Services, which reports to the World Meteorological Congress. The Framework's contribution to climate change adaptation and resilience has been recognized by the Parties to the United Nations Framework Convention on Climate Change.

While the use of climate information and forecasts is growing rapidly, some 70 developing countries still lack the resources and expertise they need for their citizens to benefit from climate services. The GFCS assists these countries to develop and use climate services. It also promotes international collaboration, the pooling of resources and expertise, and the sharing of best practices.

The GFCS has mobilized support from donor countries and partner institutions to advance the use of climate services around the world. Recent activities include the Climate Services Adaptation Programme in Africa, projects in Haiti, the Caribbean and Asia, and a series of national and regional consultations. Governments and organizations interested in joining the GFCS partnership are invited to contact the GFCS Office.