



# The China Framework for Climate Services (CFCS)

## Explainer

An explainer on research from the Climate Science for Service Partnership (CSSP) China for decision-makers in China // No. 12

Disaster Risk Reduction  
Agriculture  
Water  
Energy  
Urbanisation  
Major Engineering Projects

Climate Services

Users of climate services

### Summary

There is a growing need to improve our understanding of how the climate has varied in the past and how it could change in the future to mitigate and prepare for natural disasters. The use of climate information in decision-making can improve society's understanding, perception of and preparedness for, climate-related hazards and improve economic outcomes. The China Framework for Climate Services (CFCS) is a collaboration to inform decision-makers of the social and economic benefits of incorporating climate impacts into future design, drawing on and further developing scientific knowledge and capability in China and worldwide.

### Why?

China suffers from a wide range of meteorological disasters, such as floods, droughts, typhoons, heat waves, frosts, haze and sandstorms, with many of these disasters becoming more frequent, in part attributed to climate change.

Climate information is needed to help avoid or mitigate the possible impacts of meteorological disasters on planning implementation. Climate services include the process of generating, providing and using climate information in such a way as to assist in decision-making for both current and future conditions (Hewitt et al. 2012).

### How?

The CFCS aims to provide timely, accurate, and tailored climate services that reduce the vulnerability of society to climate-related risks and guide future adaptation to climate change across a wide range of industry sectors.

The CFCS provides multiple types of outputs such as: climate service, monitoring, prediction and assessment products depending on the users needs, all of which require interdisciplinary expertise. The climate services are developed by interdisciplinary teams of climate scientists, social scientists, researchers, forecasters, and communication specialists.

The CFCS also aims to improve collaboration between climate service providers and users to promote mutual understanding of the benefits of using climate data for planning in sectors such as: infrastructure, energy and agriculture. Users can obtain historical and real-time observations, as well as outputs from climate models covering historical and future periods, to monitor and assess extreme weather and climate events through a specialist user interface.

The CFCS governance structure brings together all relevant national participants to work together to improve climate service delivery at the national scale.

### What now?

When surveyed, 88% of users of the CFCS were satisfied with the service (2017-2019). Another sign of success is scientific contributions; 816 scientific papers were published from 2014-2019.

The CFCS is working towards the transition of climate research to operational climate services that are relevant, tailored and usable to support long-term planning in sectors such as agriculture. The skill of climate predictions is also continually being improved to aid decision-making on disaster prevention and mitigation methods.

### References

Wang, Y, et al (2020). Improving China's Resilience to Climate-Related Risks: The China Framework for Climate Services. *Weather, Climate, and Society* 12, 4, 729-744, <https://doi.org/10.1175/WCAS-D-19-0121.1>

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