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Climate science to services

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Overview

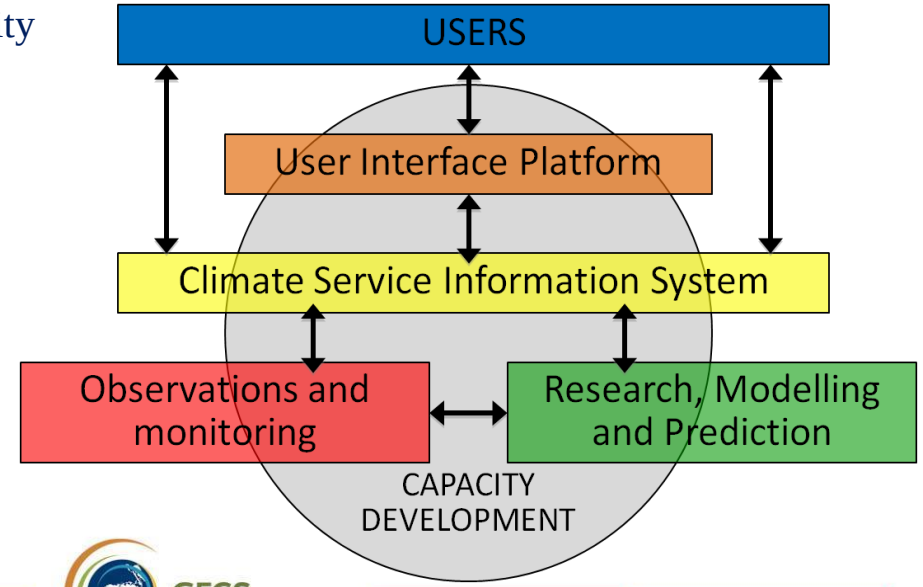
- The Global Framework for Climate Services
- Met Office climate services – some examples
- Highlight some challenges and how we responded

Global Framework for Climate Services (GFCS)

Vision: enable society to manage better the risks and opportunities arising from climate variability and change, using science-based climate information

Priority areas:

- Agriculture and food security
- Water management
- Health
- Disaster risk reduction
- Energy



GFCS GLOBAL FRAMEWORK FOR CLIMATE SERVICES

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Delivering Science with Impact

- **Saving lives and livelihoods** and **protecting critical infrastructure**.
- Contributing to a **more resilient nation, better prepared** for weather and climate risk.
- Helping government and business make wise choices for **future investment in adaptation**.
- Underpinning **mitigation policies** to avoid dangerous climate change.
- Supporting **economic growth** through better use of weather and climate information

(International) Climate Services

- We work closely with international, regional and national organisations and engage with climate-sensitive communities and sectors

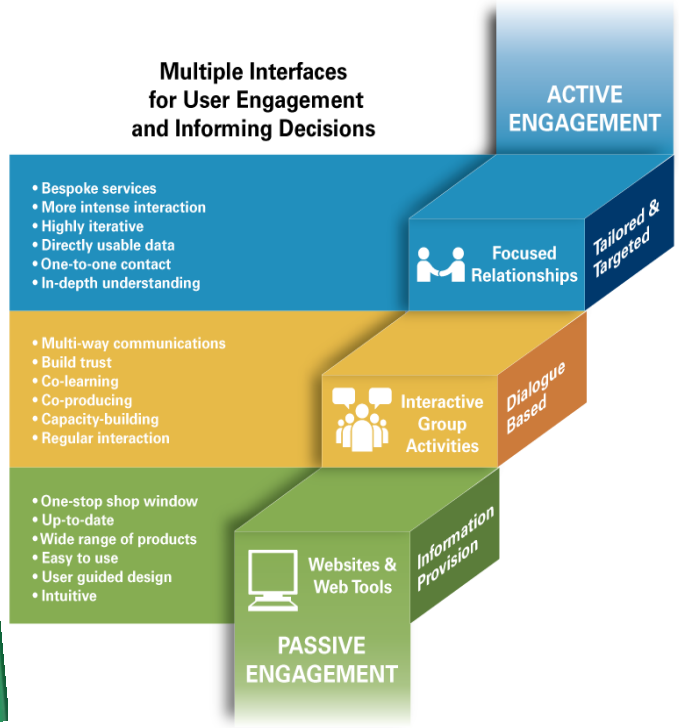
Aligned to the Global Framework for Climate Services

- Co-develop climate services to support decision making
- Build capacity and provide training where helpful
- Coordinate initiatives where appropriate
- Draw on capability within the Met Office and partners

User engagement is key

WMO Commission for Climatology international Expert Team on user engagement for climate services

- Identify and evaluate examples of user engagement
- Publish guidance on good practices, with case studies of good examples



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COMMONWEALTH
HEADS OF GOVERNMENT MEETING
LONDON 2018

- Work with Commonwealth nations to support climate change adaptation in small island states
- Collaborate with National Met. Services and regional centres in Pacific and Caribbean
- Share experiences and good practice

NIWA
Taihoro Nukurangi

National Oceanography Centre
NATURAL ENVIRONMENT RESEARCH COUNCIL

SPREP
Secretariat of the Pacific Regional Environment Programme

Australian Government
Bureau of Meteorology

CIMH
Caribbean Institute for Meteorology and Hydrology

Climate Science for Services Partnership China

Develop climate science and services to support climate-resilient development and social welfare in China

- Build collaborations between scientists in China and UK
- Identify user needs in priority sectors:
  - Energy
  - Agriculture and food security
  - Urban environments
  - Air quality
  - Water resource management
- Inform the science and pull-through the science
- Co-develop prototype climate services to respond to needs




Collaboration

climateurope

- A coordination and support action, funded by the **European Commission**
- A **network** of European scientists, policy makers, businesses, etc.
- Identifies **gaps**, new **challenges** and emerging **needs**
- Enhances **communication** and **dissemination**
  - Festivals, fact sheets, newsletters, social media, …
- Grow the climate services **market** and make society more **climate-resilient**




Met Office · ANR · cnrs advancing the frontiers · SMHI · cmcc · GERICS Climate Service Center Germany · ECMWF · Imperial College London · Koninklijk Nederlands Meteorologisch Instituut Ministerie van Infrastructuur en Milieu · BSC Barcelona Supercomputing Center Centro Nacional de Supercomputación

Challenges

- The concept of "users"
- Scientific and technical capabilities that underpin the service
- Scientific and technical capacity of providers and recipients of services
- Understanding the context
- Sustainability of services

Expert Team on Tailoring Climate Information

This team is joint with Focus Area 2, same expert team

Members:

1. Mr David Walland (Australia, RA V) co-lead
2. Mr Chris Hewitt (UK, RA VI) co-lead
3. Ms Khadija Kabidi (Morocco, RA I)
4. Mr Akira Ito (Japan, RA II)
5. Ms Claudia Villarroel (Chile, RA III)
6. Ms Beth Hall (USA, RA IV)
7. Mr Alex Pezza (New Zealand, RA V)
8. Ms Mirjana Ivanov (Montenegro, RA VI)

Mission:

- Provide guidance on the tailoring of climate information for user-level decision-making, including good practices on the applications of climate information.

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Summary

- Met Office undertaking a wide range of climate service co-development and co-delivery
- Various challenges encountered (including “users”, capabilities, capacities, context, sustainable)
- Approaches that work for us:
  - Focussed user engagement
  - Collaboration and partnerships
  - Prototyping
  - Evolve the science and services based on the user needs

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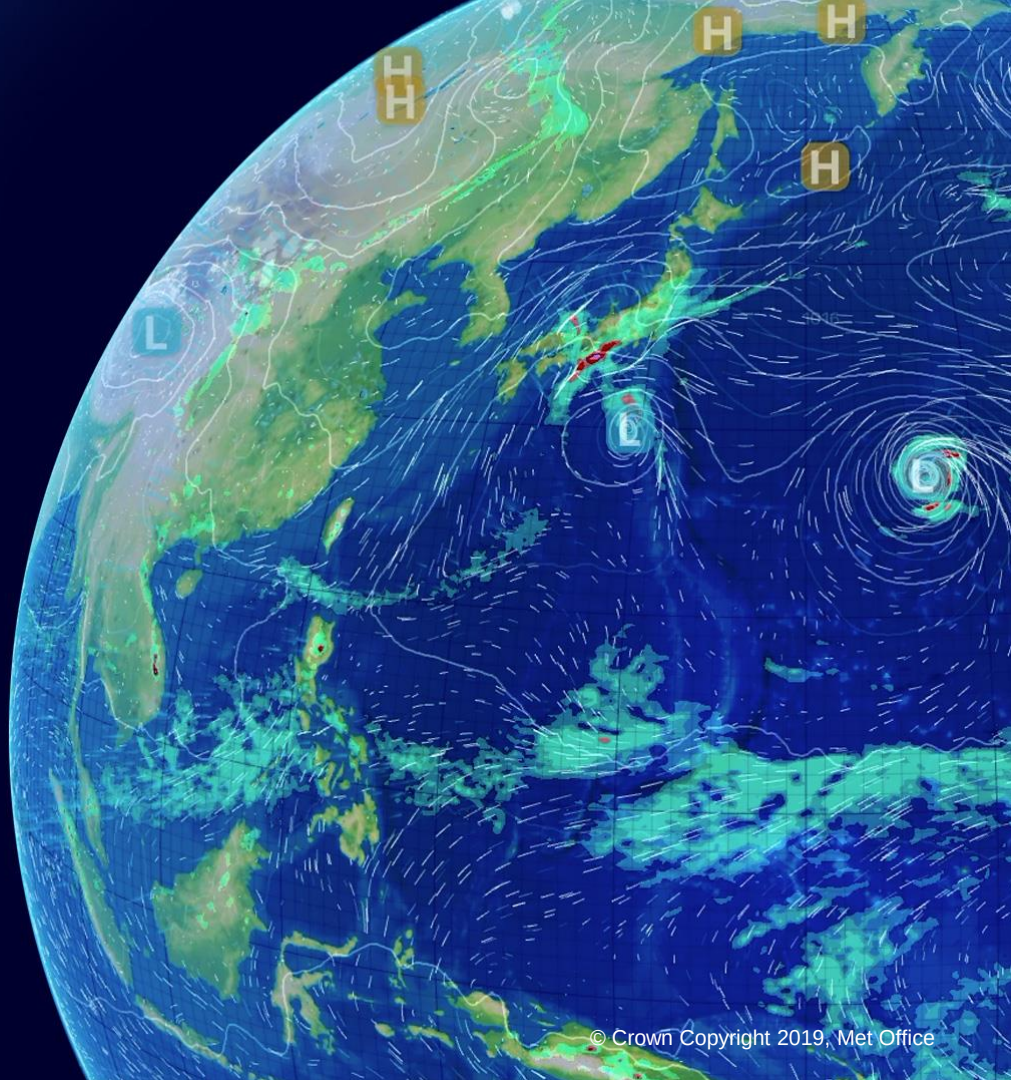
Thank you for listening



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