Climate Services Information System (CSIS)

A Regional Approach to Implementing the Climate Services Information System (CSIS-R)

GLOBAL LEVEL
Global Producing Centres (GPCS)

REGIONAL LEVEL
Regional Climate Centres (RCCs)

NATIONAL LEVEL
National Meteorological and Hydrological Services (NMHS) and other stakeholders

National Climate Outlook Forums

Tailored Products e.g. return periods, cumulative values of key variables/indexes, probabilities of exceeding key thresholds, reservoir inflow forecasts, normalized difference vegetation index, soil moisture

DATA
Historical
Instrumental data - records of daily data, century-long measurements of surface temperature and precipitation
Paleoclimate and proxy data - derived from natural sources (tree rings, ice cores, corals, and ocean and lake sediments)

PRODUCTS
Climate trends, extreme climate indices, sector-specific climate indices, projections for specific extremes, climate normals, world weather records

Monitoring
Uses data from the recent past and the present

Climate monitoring and watch

Sub-seasonal to seasonal
Flash flood guidance
Severe weather forecasting
Tropical cyclone forecasting

Climate change indices
Information on extremes

Operational projections on climate change timescales

DECISION SUPPORT APPLICATIONS
- Climate services apply past climatological records, contemporary monitoring and expected future conditions to socio-economic sectors
- Agriculture: Influence crop choice, planting to optimize yield and enhance crop failure risk, disaster risk identification based on extreme event return periods and trends
- Emergency response:
  - Disaster risk reduction
- Contingency plans:
  - Humanitarian response, government and private, infrastructure investment
- Infrastructure:
  - Influence mitigation policy and adaptation choices
  - Impact on water resources, heat stress, crops, infrastructure

USER INTERFACE
- Identification and production of products, validation of end use and outcomes

TOOLKIT
- Facilitates operations and is used typically by forecasters

TAILORED PRODUCTS TO SUPPORT DECISION-MAKING
- Products can either be tailored in space and time or according to the decision relevance