

Framework for a guidance  
document for recommended long-range  
prediction practices based on the review  
of current long-range forecast practices

# Guidelines of science practice

- Documentation of the process to produce forecasts
- Skill assessment of input sources (dynamical/statistical) recommended (and documented)
- Forecast skill should be displayed along with forecasts and driven by climate drivers and regional climate regimes
- Verification of the final product should follow standard procedure as outlined in the RCCs TOR (criteria)
- Strive to use the best approach for you region including verification through an assessment of skills
- **Aspire** to 100% objectivity, restrict “hedging” to impact discussions and not the forecasts unless scientific or subjective meanings (reasons?). Recommend both the forecasts can be saved and a comparison of forecast before and after hedging
- Frequency should depend on how fast things are changing... (eg. For seasonal forecasts monthly should be ok)
- Include climatology in the documentation of procedures
- Review procedures periodically to determine areas for improvements

# Guidelines of science practice

- Targeted skill driven by climate drivers and regional climate regimes
- Users know the skill level of forecast products
- Forecasts required to have best possible understand of climate variability for the region they are making forecast
- To include advice on the document in a situation in which no forecast skill
- Recommended that hindcast data should be more available (accessible)
- Use of available information that accounts for local information within the global context, e.g., long-term trend, decadal variability etc
- Know how the models perform with respect to key drivers
- When Combining probabilities from models climatological reference should be used

# Guidelines on presentation

- Information on climatology should be included with forecasts to allow for comparison by end user
- Numerical values should be provided for all maps that are produced
- Text should have two parts:
  - Reason behind forecasts
    - For Subjective forecasts there should be clear reasoning behind the given forecasts
  - Recommended - Potential impacts in the context of current climate conditions for region
- Three sections:
  - Internal briefing (technical) note
  - General public
  - Sector-specific
- Text should also include information about skill
- Adopting IPCC terminology with softening the terminologies in a manner that maximizes users understating
- Different levels of communication (press release on quarterly base, informal or internal/ discussion or communication.....)
- Guidance is required as there was no consensus among the group

# Guidelines on presentation

- Use of deterministic
- Communicating uncertainty
- Public (e.g. in Agriculture) cannot imagine the weather from Probabilistic forecasts
- As much as possible we should make probabilistics to convey authority, you can use deterministic but give value to some users

# Guidelines on procedures

- Do what is needed based on your capacity and local contexts/needs
- Provide channels for feedback from end users for improvement in procedures/packaging
- Explore/Develop a template to support effective communication
- Maps should be viewable by colour blind people
- Produce translated version for all centres in multi-lingual regions

# Guidelines on procedures

- Forecast is subjected to expertise review process (both for the global centers and regional centers)
- Consideration between scientific procedure and organizational protocol
- Climate scientists should be supported by management in order to deliver rigorous science driven forecast product

# Guidelines on procedures

- May be related to a strategy for communication, dissemination?
  - Have a well-defined procedure: follow a suggested WMO best practice
  - Prepared by a team (team could be 2 to many people)
  - Set schedules time in making the forecast.
  - Disseminate the forecast through media, press releases
  - Compare to previous seasonal forecast, establish a process which archives existing forecasts
  - Consider including social scientist in communication preparation

# Guidelines on procedures

- Update (reissue) of forecast
  - Need to identify an efficient way to reissue, start from previous meeting discussing previous forecast, then consider changes to models/input sources
  - Need to consider whether the update is actually necessary

# Guidelines on Documentation

- SOPs, documentation of forecast reasoning
  - Update guidelines occasionally
  - Fixed the accountability
  - Collecting all the scientific practice
  - Intermediate documentation to support internal communication (e.g. technical note, or layman's document)
- Recommend SOPs and documentation of forecast reasoning
- and update periodically