

A Monsoon Project for S2S

Mission of S2S: Promote routine prediction at lead times 2-8 weeks

Fills gap between extended range NWP and seasonal

Exploit predictions for purposeful applications

A monsoon prediction project would seem to be an obvious choice to highlight the potential of subseasonal prediction

we have been making the case for years that intraseasonal variability is the building block of the monsoon

especially of interest because of low skill of seasonal predictions

predicting intraseasonal variations (breaks/active) are of potentially more use for agriculture than are seasonal predictions

Some issues that need to be discussed concerning a monsoon project

Should it necessarily be joint with MJOTF? And what about other CLIVAR monsoon panels? What about GEWEX who have strong interest in land surface/water, etc?

How will a project work?

Will the AAMP/MJOTF be expected to do the bulk of the work or will we just come up with some protocols and hope for participation (eg as per the WGNE MJO realtime forecast exp)

What S2S resources should we exploit (eg just the realtime archive or also a hindcast set)

Should focus be on predictability, monsoon specific phenomena, model improvement, forecasts system development, applications/forecast products?

My opinion (HHH) is that we already have some projects focusing on aspects of predictability (ISVHE) and model development (GASS MJO diabatic heating), so focus for S2S might be:

- a) forecast system developments (there hasn't been any effort to address optimum configuration of multiweek systems (eg ensemble strategies, perturbations, initialization, forecast reliability). Could tie in with WGSIP
- b) role of land surface for monsoon ISV (e.g., contribution to IS predictability but also initialization strategies/impacts, evaluation of initial condition, impact of initial land on forecast performance
- c) forecasting monsoon specific phenomena beyond the MJO/MISO; eg using hindcast set, evaluate skill for predicting onset at various locations (Kerala, Darwin, Phoenix),
- d) development of monsoon specific prediction products: we need to go beyond the MJO RMM phase portraits, especially thinking about extremes, and presentation of seamless forecast products presentation across NWP to seasonal, water resources, etc. Would require hindcast set if going to be based on model's thresholds (eg terciles or accumulations)

Specific examples are provided in my comments to Duane's white paper