

Performance analysis of long lead flood forecast information from GloFAS

Workshop: Hydrological Services for Business

8-9 May, 2018

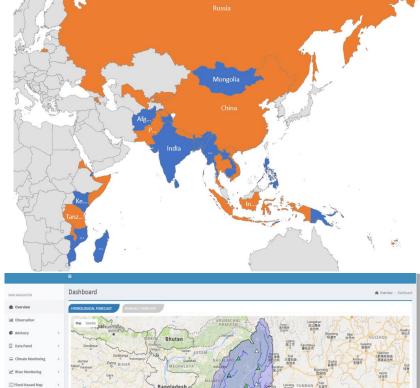
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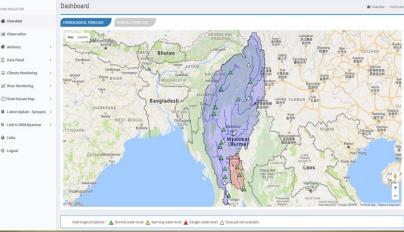
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RIMES Flood Forecasting

- RIMES is supporting national meteorological and hydrological agencies from its member countries to develop the long lead flood forecasting systems.
- Flood forecast system is operational in Bangladesh, Myanmar and Nepal.
- RIMES-ECMWF/GloFAS collaborated to extend flood forecast in RIMES member countries with 30-days lead time flood outlook



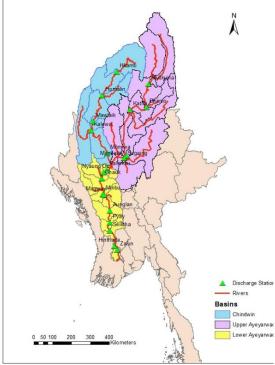


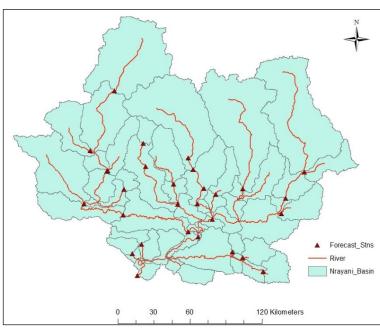




GloFAS performance assessment

- GloFAS performance was assessed for selected locations in
 - Ayeyarwady river basin in Myanmar
 - Narayani river basin in Nepal
- Performance of ensemble mean forecast with lead time of 5-days, 10-days, 15-days, 20-days, 25-days and 30-days was analyzed



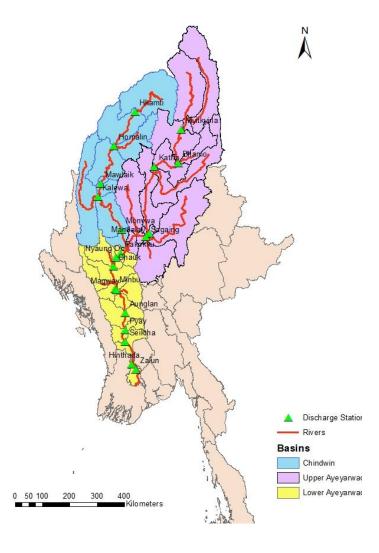




Key Findings

Ayeyarwady

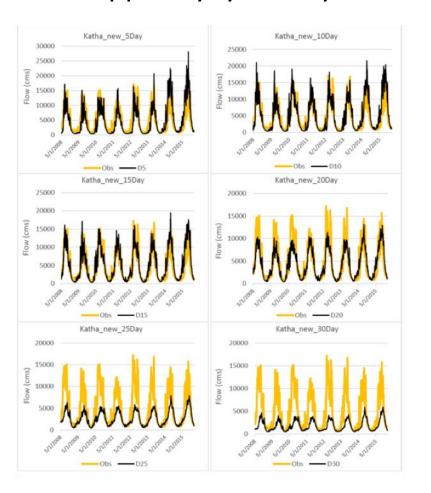
- In upper Ayeyarwady GloFAS is able to capture the seasonal cycle as well as peaks up to 15-days
- In Chindwin river capture the seasonality as well as peaks quite well up to 10-days.
- At confluence, outlook is good up to 20-days. 5-day and 10-day forecasts capture the seasonality as well as timings of peak flows, although overestimate the magnitude of peaks.
- At basin outlet (Zalun) flow outlook up to 25-days is satisfactory.



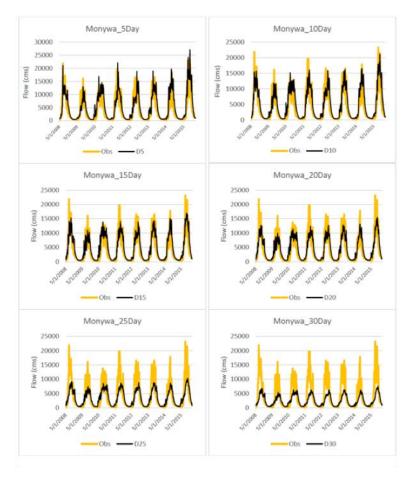


GloFAS performance assessment

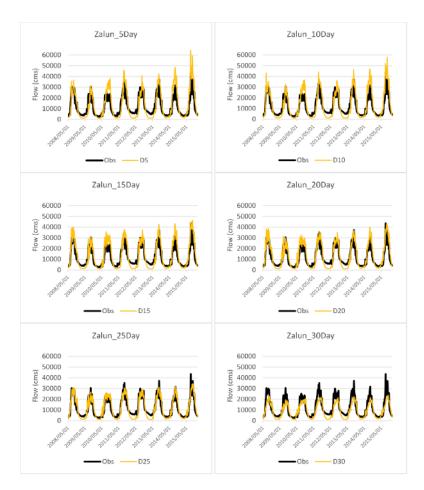
Upper Ayeyarwady



Chindwin



Basin Outlet





Conclusion and way forward

 GloFAS performance shows promising results in Ayeyarwady and Narayani

 The flood outlook at 15 days can be integrated in NMHSs operational system after conducting systematic performance evaluation



Way forward

Operational System

- ✓ Bangladesh
- ✓ Myanmar
- ✓ Nepal

Ongoing -

- > Philippines
- > Sri Lanka
- > India
- > Bhutan
- > Laos

Upcoming

- o PNG
- o Fiji

