

Review of manuscript “Verification of Pre-Monsoon Temperature Forecasts over India during 2016 with focus on Heat Wave Prediction” By Harvir Singh, Kopal Arora, Raghvendra Ashrit and EN Rajagopal (Ms No: nhess-2016-264

General Comments:

As the title suggests this paper investigates the extreme heat wave events over India using a high-resolution numerical weather prediction and its ensemble forecast in union with the classical statistical scores to serve the verification purposes. The authors claim that the results indicate an appreciable competence of the ensemble forecasting detecting extreme heat wave events as compared to deterministic forecast. On the whole the scientific significance and the presentation quality are good.

Specific Comments:

- (i) The verifications are based on extreme heat events for only one year, the authors could consider a few more years to support their results
- (ii) The authors have used gridded data. This would have definitely suppressed the extreme station temperature values
- (iii) On Page 2, Kothawale (2005) and IPCC (2013) have been cited but not listed under references
- (iv) Page 6 : The y-axis in each of the figs (is this applicable to all figures ?)
- (v) Page 7: Line 23, mention is made of Table-1, but this table lists the abbreviations used
- (vi) Page 7 last 3 lines: Authors mention spatial distribution ----- but Fig. 8 and 9 show box plots
- (vii) Page 8: first Fig 11 is referred, then 10, then 9 and the 8 ??? Please follow sequence
- (viii) Page 8 line 7 Mention of ETS plots (Fig.10) is made but this fig contains plots for FAR
- (ix) Similarly Fig. 9 are ETS plots but in text something else is mentioned (page 8)
- (x) Page 8 line 23: Mention is made of SEDI score plot – fig number not mentioned
- (xi) Several repetitions
