Interactive comment on "Identifying ENSO Influences on Rainfall with Classification Models: Implications for Water Resource Management of Sri Lanka" *by* Thushara De Silva M. and George Hornberger

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This paper attempts to apply statistical learning models to classifying rainfall in two river basins of Sri Lanka using the relationship between rainfall in Sri Lanka and El-Nino-Southern Oscillation (ENSO), Indian Ocean Dipole (IOD). I believe the predictions in this study is helpful to the management of the water systems considering the impacts of climate change. My comments for this manuscript are as follows:

1. Line 114-116. It is mentioned that the data will be tested for normality. If not, the data

will be transformed. Can you provide the test results and specify the transformation function?

2. Line 117: Using one's own definition of the anomaly is okay, but I think it is necessary to justify the cutting values of the three classes of anomalies.

3. Section 2.3: Before applying the three models, can you provide the reasons why these three particular models were selected to perform the analysis? Also, I believe a bit more details about the three models are necessary in order to help more readers to understand how these models work. If possible, can you use graphs to illustrate the models?

4. Please give more details with regard to the parameter tuning in building the random forest model.

5. Can you specify the programming tools you used to perform the analysis?

6. Line 186, it would be better to increase the font size of Fig.3.

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