In the introduction the deforestation advance appears as the main justification for an article that analyzes only the water balance of a natural savannah ecosystem. This is reflected in the absence of a well-defined goal. The work creates an expectation for the comparison of the water balance in the soil components in a natural savanna site and a near deforested area, which does not happen in the development of the text.

The work points the evapotranspiration estimate (by empirical model) as a major focus, when in fact what is presented is the evaluation of the soil water balance components.

The paper indicates that the sites represent pre-clearing conditions. But in fact do not represent natural ecosystem?

The article has a confusing structure in the presentation of the methodology and analysis of results, which need to be better organized.

Two sites are indicated as study area PDG and IAB, but only the second has analyzed the water balance effectively.

In modeling evapotranspiration item

In experimental IAB site several micrometeorological data was measured in high temporal frequency. Why not used the penman-monteith parameterization for estimating evapotranspiration, or even a land surface model (e.g. SiB2, CLM3, etc.) that would also examine soil moisture?

Recent studies have incorporated physical considerations in estimating the evapotranspiration o in combination with remote sensing data to study area, such as:

da Silva B. B., Wilcox B. P., da Silva V. d. P. R., Montenegro S. M. G. L. and de Oliveira L. M. M.(2014) Changes to the energy budget and evapotranspiration following conversion of tropical savannas to agricultural lands in Sao Paulo State, Brazil, Ecohydrology, DOI: 10.1002/eco.1580.

The presented evapotranspiration estimation method does not allow the conclusion "…Our findings indicate that the fitted equation may be used to compute ET at daily, monthly and annual scales. ", only by comparing with literature data, longer time series analyzes need to be considered. This results in a fragile analysis.

In pg 12992, line 20: forest no fores

Pg. 12994: Equation 2 is not correct to describe the function that minimizes the mean squared error.

Pg. 12996: In equation 4, S is soil water storage.

Pg. 13016: Figures 4(a,b,c) are very small and illegible.

In figure 5 soil moisture data are presented but not cited in methodology. The values of the volumetric water content in the soil (y-axis) are in different scale of variation of which is presented in the text (pg 12999).

The results show the effect of greatly reduced rainfall over the region in the years 2013 and 2014, which limit their comparison with other times and nearby areas. The great influence of climate variability prevents the comparison of the components of the water balance of the soil, with measurements in deforested/grown areas in different periods.

The conclusions reproduce the results without discussions.

The work needs to be improved and resubmitted.