Response to RC1

dear reviewer, thanks a lot for your comments. I did not find the zip folder, so I could not provide further comments. All apologies

Response to RC2

1) "**The article should clearly discuss how drought conditions increase groundwater demand and how groundwater withdrawal is affects clay layer causing subsidence**"
Those are indeed important in the US (https://www.usgs.gov/special-topics/water-science-school/science/land-subsidence) or in Asia, such as in Vietnam (https://hal.archives-ouvertes.fr/hal-01888487/document) or Jakarta (https://doi.org/10.1016/j.ocecoaman.2021.105775), but such a phenonema is not reported in France.

2) "**Evapotranspiration (ET) is an important component of the hydrologic cycle which has not been incorporated in these variables**"
Indeed, our variables do not take into account ET *explicitly* (we only consider soil moisture, soil temperature and precipitation), even if a correlation undoubtedly exists between our variables and ET because we consider soil heat, moisture and precipitation.

Other interesting indicators can indeed be constructed by adding ET (e.g. SPEI, more powerful than SPI), however this indicator is sensitive to the method of calculation of "potential evapotranspiration". And there were granularity issues with the data, that were not on the same scale as other variables. This is why we did not incorporate that component explicitely.

3) "**no error metrices have been presented to represent each model performance compared to original observations**"
Here a a summary of various statistics,

	TPR (%)	Gini (%)	RMSE (%)	AIC	BIC
Binomial	18.5%	84.0%	0.0080	115,051	115,113
Poisson	18.5%	92.7%	0.0081	114,189	114,252
Quasi-poisson	17.8%	92.7%	0.0081		
Negative-Binomial	20.9%	94.1%	0.0142	100,491	100,564
ZI Poisson	14.9%	93.2%	0.0079	71,154	71,259
ZI Negative-Binomial	18.1%	93.4%	0.0080	54,375	54,510
RFF	16.7%	91.5%	0.0083		
RF poisson	15.2%	91.5%	0.0079		

Such a table was not incorporated since we are not really confortable with those measures on *counting* variables (related to some Poisson loss). There are standard measures, with pros and cons, for continuous variables (RMSE) or binary ones (TPR, Gini), but no real consensus on counting variables. We can add that table if necessary