

**First of all, authors would like to thank the referees for the valuable comments. Hereafter we hope to clarify the questions arisen**

Referee #2:

I would like to thank the authors for having considered my previous comments and suggestions in reviewing their manuscript. I only have one last criticism related to the fact that CORDEX daily precipitation data are simply divided by 24 to get hourly data to use as input in the hydrologic/hydraulic modeling. This distribution, besides being unrealistic, can strongly influence the results in terms of flood conditions. The authors should better argue that point and explain why this choice is better than any other hourly precipitation distribution in their study.

**We chose to apply this approach to the CORDEX data in order to use an hourly time step in the hydrological model and thus improve the accuracy of the results. In this sense, this allows obtaining an hourly river flow, which is more appropriate than considering only mean daily river flow. In addition, this also allows better performance of the hydraulic model. However, we agree with the reviewer that other precipitation distributions could have been used. As the reviewer comments, the precipitation distribution considered can influence the results, especially in those areas subjected to flash floods, as is the case of the Pyrenees river basins (Northeastern Iberian Peninsula), where the timing of the precipitation may be an important factor. However, the Miño river basin is hardly affected by flash flood processes, developing slower floods, so the fact of considering different precipitation distributions implies a lesser impact. In any case, it is important to bear in mind that the objective of this study is to compare historical floods from a climatological point of view with the future floods, in order to detect the future trends. In this sense, the different approaches considered to calculate past and future river flows and the associated floods, would not change the main results obtained within the aim of this work, that is, flood increasing in the future. Therefore, we opted to use the current approach, using thus the information provided by CORDEX without applying other artifacts, since the application of different precipitation distributions would involve other uncertainties and, as commented above, is less important attending to the scope of this work.**

**However, as authors consider these considerations to be important, a sentence clarifying these questions has been added in the manuscript (lines 155-158):**

*“Once the models that provide a good characterization of the precipitation for the study area have been selected, the precipitation provided by each one is used as an input in the hydrological model to simulate the river flow in the entire Miño-Sil basin. Thus, a hydrological simulation was carried out for each valid CORDEX model considering both*

historical (1990-2019) and future (2070-2099) periods. Although precipitation data from CORDEX is on a daily scale, it was added to the hydrological model on an hourly scale (dividing daily data by 24) in order to obtain river flows at this scale. *Although other precipitation distributions could be applied to obtain hourly resolution, we opted to use this approach in order to maintain CORDEX information without modifications taking into account the climatological perspective of this study, and also considering that the area under scope is affected by relatively slow floods where the distribution of precipitation has limited impact. Therefore, the historical and future flows of the river were obtained on an hourly scale”*