

Interactive comment on “Rainfall statistics changes in Sicily” by E. Arnone et al.

Anonymous Referee #1

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This paper is very interesting. The manuscript represents a substantial contribution to scientific progress. The authors discussed the changes of rainfall intensities (frequencies of occurrences in regard to depth and duration) and they studied their trends. They analyzed annual maximum rainfall series at 1, 3, 6, 12, 24 h duration and daily rainfall. This analyze is relevant, because it provides a comprehensive view on water availability, on water management or on design of water engineering structures and on all the hydrological applications which use rainfall characteristics. P2326 §25 You should use North of Africa instead of North Africa. The latter encompasses an ensemble of countries: Morocco, Algeria, Tunisia, Libya and Egypt. They have a variety of climate. These countries are in arid to semi-arid region with a Saharan climate in the South; an oceanic one in the West and Mediterranean in the North (Agoumi ,2003 and Abou-Hadid 2006). P2330 §15 you should reorganize the paragraph. The results of AR(1) should appear in §2.3 rather than in Methodology. P2331 Could you add infor-

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mation about the difference between daily rainfall and 24h duration one. P2332 Would you expose the reasons of classification. What are additional (or relevant) information? Conclusions: I am skeptic about relation between global warming and modification in rainfall regime. The authors didn't use the outputs of climate models and they didn't analyze their effects (values).

References Agoumi A. (2003) Vulnerability of North African Countries to Climatic Changes; http://www.iisd.org/ckn/pdf/north_africa.pdf

Abou-Hadid A. F. (2006) Assessment of Impacts, Adaptation, and Vulnerability to Climate Change in North Africa: Food Production and Water Resources http://www.aiaccproject.org/Final%20Reports/Final%20Reports/FinalRept_AIACC_AF90.pdf

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