

Interactive comment on “Spatial and Temporal Pattern of Drought Hazard under Different RCP Scenarios for China in the 21st century” by Tao Pan et al.

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This manuscript presents an important study on the spatial and temporal pattern of drought hazard under different RCP scenarios for China which is a hot topic in climate change and disaster risk researches. The results gave clear maps of the disaster hazards under RCP 4.5 and 8.5 respectively for 2011–2099 over China. The conclusions are very useful for risk assessment and management. Overall, this paper is well conducted and organized. The method and data were suitable and reliable. It presents a detailed and robust analysis of the spatial and temporal variation in drought hazards in three time periods. The conclusions provide an important reference for adapting to

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extreme climate change and the prevention and reduction of disaster risks. For these reasons, I would like to recommend publish this paper on NHES after some minor revisions. The detailed comments are as follows.

Page1, line 13: “. . .to evaluate drought” should be “. . .to evaluate drought hazard”
Page1, line 14: “(RCP) 4.5 and 8.5 climate data” should be “(RCP) 4.5 and 8.5 scenarios climate data”
Page1, line 29: change “are” to “were”
Page1, line 31: suggest add “for disasters” after “Therefore, risk assessment”
Page1, line 32: “Risk is often represented. . .” could be “Risk of disaster is often represented. . .”
Page2, line 3: it's better to revise “Evaluating hazards is the most important aspect. . .” to “Evaluating hazards for disasters is the most important aspect. . .”
Page2, line 3: “extensive research has been conducted. . .” should be “extensive researches have been conducted. . .”
Page2, line 7: “. . .in drought in semi-arid areas in the western United States. . .”, too many same prepositions “in” in one sentence
Page2, line 8: “. . .the drought situation”, here the word “situation” is not very good
Page2, line 10: “Similar research”, it's better to use plural
Page2, line 11: is “Xing-Guo” a family name?
Page2, line 13: You could use “In addition, . . .” instead of “Finally, . . .”
Page 2, line 23: “Drought indexes. . .” could be “The main drought indexes. . .”
Page 2, line 24: add “et al.” after “. . .Rhee et al., 2010”
Page 2, line 31: “The primary objective of this study was to. . .” should be “The primary objective of this study is to. . .”
Page 3: for section 2.1, you'd better to use 1-2 sentences to describe what is “Eco-geographical regionalization”
Page 3, line 11: “included” should be “includes”
Page 4, line 14: “indices”, you use “indexes” in page2 line 22, should be consistent throughout the context
Page5, line2: the title of section 3.1 “Determining SPEI over different timescales”, what do you want to determine in this section, SPEI or time scale?
Page5, line23-24: rewrite this sentence to make it more clear
Page 6, line 9: This sentence is a little bit redundant
Page 7 line 18: change “continuing” to “continuous”