Nat. Hazards Earth Syst. Sci. Discuss., 3, C289–C291, 2015
www.nat-hazards-earth-syst-sci-discuss.net/3/C289/2015/

Natural Hazards and Earth System Sciences
Discussions

Interactive comment on "Assessing the economic impacts of drought from the perspective of profit loss rate: a case study of the sugar industry in China" *by* Y. Wang et al.

Anonymous Referee #3

Received and published: 23 March 2015

General Comments: - They highlight the need of impact assessments to better deal with future episodes. It is very important to have studies like this one that try to determine the real amount of drought economic losses. - They made a very interesting analysis of the value chain, of how all the costs and incomes interact and how a natural disaster impact can be spread until the final economic result. - It is interesting how they consider the isolation of the effect by applying profit loss rate and considering price rises when yield decreases. - It seems relevant to analyze the sugar company and the sugarcane growers because of their important in the area - It is also interesting that they reach the solution of sharing risk with option contracts - There are some

Full Screen / Esc
Printer-friendly Version
Interactive Discussion
Discussion Paper

simplifications in the methodology that should be changed Specific Comments: - Be careful when comparing with and without scenarios and assuming that all the negative impact is due to the existence of the natural disaster. Economy is a complex aggregate, and many factors may influence on the negative result. o Consider ranges or confident intervals where some other factors may be included (such as price variation within a normal range) o Make clear you are not assuming all the negative impact is due to drought o The consideration of an internal time trend is a good approach, but not sufficient. o . - The determination of drought and non drought scenarios may include more data from the time series. Is there any other period with water shortages? Was this period affected by drought? There were no previous water shortages affecting sugarcane prices?. The consideration of just one drought period is a very severe assumption. It would be better if they test whether if the time series has any relation with sugarcane prices and water availability. - In relation to the previous comment, the consideration of time series of water availability would make the study more precise. The link between yield loss and price loss is quite fuzzy. It is correct to assume a linear relation between yield loss and price change, but to calculate the coefficient you need more information about previous drought events. - It would be useful if the water availability were mentioned. How severe was the drought? Data about the natural disaster is missed. - The evolution of prices and the time trend was at least considered by Gil et al. (2013) so please make it clear when mentioned such publications in the introduction. - How are the costs determined? and what do they include? - They reach to the conclusion that option contracts are a good instrument to share drought risk. Many other authors have mention that, so it would be helpful if they include some financial risk analysis and more bibliography on option contracts for raw materials and drought. - At the beginning of 3.4, it refers to the period from April 2009 till September 2010. It is not clear if they are talking about all the period or just the drought period. What are the rest of the condition that remain similar? - The CPI used to fix the time series appears to be confusing. April 2009 or April 2006? Correct the differences

NHESSD

3, C289–C291, 2015

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 3, 1527, 2015.