

Interactive comment on “Real time drought forecasting system for irrigation management” by A. Ceppi et al.

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Received and published: 14 February 2014

This manuscript (Real time drought forecasting system for irrigation management) by Ceppi et al., is interesting due to the importance of water scarcity studies in agricultural areas such as the Po Valley in northern Italy and I think that the article could be relevant for HESS readers. Notwithstanding, in my opinion the paper could be improved with some corrections.

Pag. 15812 Line 8 The fourth IPCC Report has been cited, but the fifth IPCC Report has been published even though only as “Summary for Policymakers”. I suggest to cite the fifth IPCC Report (2013) and insert the following reference in the reference list: IPCC, 2013: Summary for Policymakers. In: Climate Change 2013: The Physical

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Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S. K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

Pag. 15812 Line 14 Please clarify if 30 days can be considered as a long-range forecast

Pag. 15814 Line 8 I suggest: “The application proposed in this paper”

Pag. 15814 Lines 10-20 In the introduction the aims of the paper are not clearly stated, so, I recommend rewriting the paragraph from lines 10 to 20.

Pag. 15815 Line 19 The acronym ARPA must be defined.

Pag. 15816 Line 6 Capitalize the first letters of “global ensemble prediction system”.

Pag. 15817 Lines 3-5 In these lines the authors refer to some precipitation and temperature gauges, avoiding details about their location. I suggest to localize these gauges in Fig. 1a.

Pag. 15819 Lines 1-13 Please clarify how equation 1 becomes equation 2

Pag. 15819 Line 22 I suggest: “Figs. 2 and 3 show” avoiding “The following”

Pag. 15819 Lines 23-24 The three TDR probes were installed at 10, 35 and 70 cm depth as stated in these lines or at 10, 35 and 60 cm depth as stated at Pag. 15817 Line 19

Pag. 15820 Line 12 I suggest to insert (Fig. 3) at the end of this line

Pag. 15820 Lines 26-27 The reference “Wilks, 2006” mentioned in the text is missing in the references list

Pag. 15820 Line 27 Change the reference “Jolliffe, 2003” mentioned in the text in “Jolliffe and Stephenson, 2003” as reported in the references list

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Pag. 15822 Line 1 I suggest: “As it is shown in Figs. 5 and 6” avoiding “the following graphs”

Pag. 15823 Line 2 Is the acronym related with the Nash–Sutcliffe index NS (as in text) or ENS (as in the formula)?

Pag. 15823 Lines 8-9 I suggest: “However, in Fig. 7” avoiding “in the following picture”.

Pag. 15825 Line 11 I suggest: “Fig. 10 shows” avoiding “The next picture”

Formulae Results of some indices are described before the equation are defined, I suggest to define the formulae and then to describe the results of the application of these formulae (e.g. Nash–Sutcliffe)

Figure 1 I suggest to localize the precipitation and temperature gauges in Fig. 1a and to insert a bar scale in Fig. 1b. Can the authors explain the reason why have Livraga and Lodi been evidenced?

Figures 2,3 and 4 I suggest to differentiate the contributions of precipitation and irrigation in these figures using two different colors in the bars. Moreover I suggest to use the same axis dimension for all the three figure (e.g. the Soil Moisture axis of Fig. 2a is different from the Soil Moisture axis of Fig. 3a). Finally I suggest to insert the main grid also for the x-axis.

Figures 9 and 10 Part of the text in the legend box of these figures is in Italian

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 10, 15811, 2013.