

## ***Interactive comment on “El Niño-Southern Oscillation and water resources in Headwaters Region of the Yellow River: links and potential for forecasting” by A. Lü et al.***

### **Anonymous Referee #2**

Received and published: 5 February 2011

#### Review

El Niño-Southern Oscillation and water resources in Headwaters Region of the Yellow River: links and potential for forecasting Lu, S. Jia, H. Yan, and S. Wang

#### General comments

1. Too many language errors. The paper needs to be proof read by a native English speaker before it can be accepted for final publication.
2. Page 8524 L19-23, this paragraph shall be integrated with L5-L11 to give general

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background information of the Huang River Basin as well as the headwater catchment of the Huang River Basin (HRYR). Some key figures such as basin average precipitation, runoff, size etc. are necessary to give readers an idea of the catchment under study. Please consider to add a sub-section in section 2 that describes HRYR.

3. Regarding steamflow data, the procedure described is not clear. See P8525, L8-11.
4. No detailed information regarding spatial and temporal resolutions of the original data obtained from various sources.
5. It is a preliminary study on statistical correlation between ENSO and precipitation and streamflow for HRYR. The paper could have been more valuable if the authors looked in depth at the major types of precipitation events and atmospheric circulation patterns and find the relationship between ENSO and the major events affected. Extreme events over the 50-year period will be particularly interesting to investigate. In addition to the ENSO activities, there are other factors that influence precipitation over the HRYR region such as the South Asia monsoon.
6. I recommend publication after some revision.

#### Specific comments

1. Figures 2 and 3 have wrong subtitles.
2. Figure 1 should contain a north arrow and a scale.
3. ‘bold italic values’ are wrongly stated in all three tables. Should be ‘bold fonts’

P8522

L15: HRYR can be extent to one to thirty-six months

Change to: HRYR can be extended from one to

L21: chiefly across its core region in the tropical-subtropical Pacific mainly across the region in the tropical-subtropical Pacific

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P8523

L4-6, consider to rephrase the sentence.

L11, streamflow, which is comprehensive integrators . . .

Change to: streamflow, which is a comprehensive integrator. . .

L12-13, The ability to predict flow patterns in rivers will be highly enhanced if a strong relationship between river discharge and ENSO exists, and is quantified.

Change to: The ability to predict flow patterns in rivers will be highly enhanced if a strong relationship between river discharge and ENSO exists and can be quantified.

L26, Sri Lank

Change to: Sri Lanka

L29: for some important river

Change to: for a number of rivers

P8524

L9-11, The headwaters region of the Yellow River are most important in an international sense 10 because they generate 40% of the flow in the whole Yellow river system, a densely populated region with major economic, cultural and environmental significance.

What do you mean by 'an international sense'? Consider to rephrase.

L13, through analysis the runoff

Change to: through analysis of the runoff

P8525

L12, The climate data 1956-2005, same period as the streamflow data, is not explicitly

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mentioned for the climate data.

L13-18, The Figs. 3 and 4 are shown the average monthly rainfall and temperature respectively. Maximum monthly precipitation 15 of HRYP is occurred at July. The periods from January to March and from November to December are lack of rain, averaged monthly rainfall below 20 mm. The averaged monthly temperature is above zero between April and September, and is below zero for other months.

Change to: Figs. 3 and 4 show the average monthly precipitation and temperature respectively. Maximum monthly precipitation of HRYP occurs in July. Mean monthly precipitation is below 20mm between January and March and between November and December each year. Mean monthly temperature is above zero from April to September and below zero for the rest of the year.

P8527

L15, it is show. . .

Change to: it is shown. . .

L24, Februry and. . .

Change to: February and. . .

P8528

L6, Streamflow of JAS not only correlated

Change to: Streamflow of JAS is not only correlated

L10, streamflow main through altering the soil moisture and groundwater store.

Change to: streamflow mainly through altering the soil moisture and groundwater storage.

P8531

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L28, can be extended to one to thirty-six months

Change to: can be extended from one to thirty-six months

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Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 7, 8521, 2010.

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