We are very much thankful to our anonymous Referee # 1 for his/her kind review, positive and encouraging remarks, as well as for highlighting the importance of our study. We also appreciate the specific comments of the Referee which we believe will greatly improve the presentation of our manuscript.

Our response to the specific comments is given as under:

Response to Specific Comments

1. Eq. (1) and (2) contain some mistakes and inconsistencies in the sign to be fixed. Moreover the water balance B is used but defined later, please define just after the equation (2) in line 6, page 122.

Both equations will be corrected as given below:

$$\langle P \rangle_t - \langle E \rangle_t \approx \langle R \rangle_t \approx - \langle \overrightarrow{\nabla_H}.\vec{Q} \rangle_t \qquad (1),$$

$$\int_A dxdy(\langle P \rangle_t - \langle E \rangle_t) = \int_A dxdy\langle B \rangle_t \approx - \int_A dxdy\langle \overrightarrow{\nabla_H}.\vec{Q} \rangle_t \approx \int_A dxdy\langle R \rangle_t \approx \langle D \rangle_t \qquad (2),$$

Also, the B=P-E will be defined right after the equation (2) in line 6, page 122 of the manuscript.

2. Page 122, line 8. "The equation is satisfied for the short term storages as the average time of water in the atmosphere is roughly 10 days", please clarify better which part of the equation is satisfied in short/long term.

The equation 2 satisfies when the considered time scale is greater than the resident time of water in the atmosphere or land, as the storage term becomes negligible and vanishes from the equation.

3. Eq(3): please change <β>$_i$ into < β$_i$>$_t$ to keep coherence with previous eq.(1) and (2) or simply into <β>$_t$ according to next comment.

4. Eqs. (4) and (5): in both equations the subscript i is used ambiguously as summation index and to identify the considered variable, as described in the first line of page 123. In my opinion symbol can be used without any subscript to denote any variable.

We have changed the equation (3) as following in order to keep coherence with equation (1 & 2) and to avoid conflict between summation index and the index to identify individual variables in the equation (4 & 5).

$$\bar{\beta}_j = \int_A dxdy\langle \beta_j \rangle_t \qquad (3),$$

5. Page 130, line 23. " … suggested precipitation …". Please explain or rephrase.

Here we mean the simulated precipitation of the respective models. The expression "suggested precipitation" will be replaced with the "simulated precipitation".

6. Page 142, lines 22-27. The same concept is expressed twice. Please rephrase.

Repetition of the concept will be removed by excluding the sentence "Most of the models however, suggest the underestimation of the water balance for the Ganges, Brahmaputra and the Mekong basins and overestimate for the Indus basin".

7. Reference item for CIESIN(2005) is missing. Please double check citations and reference list.

Reference item was present in the list of references however it was not linked properly. The present form of Reference item will be as below:

CIESIN (Center for International Earth Science Information Network)/Columbia University and Centro Internacional de Agricultura Tropical (CIAT), Gridded Population of the World, Version 3 (GPWv3): Population Density Grid, Future Estimates. http://sedac.ciesin.columbia.edu/data/set/gpw-v3-population-density-future-estimates, last access: 23 December 2012, NASA Socioeconomic Data and Applications Center (SEDAC), Palisades, NY, 2005.

8. I had several difficulties in understanding the text along the x- and y-axes in almost all the figures: please improve the readability.

Readability of x- and y-labels in all the figures will be improved in the next revised version of the manuscript (Kindly See Fig 3 and 8 given at the end).

10. A general convention is to write that the quantity in the y-axis is plotted "versus" (or "against") the quantity in the x-axis. This is correctly used e.g. in the text (line 1, page 126) referring to Figure 2a, but it is systematically exchanged in almost all the Figure captions. Please check and correct.

It is noted and the all the figure captions will be corrected in the next version of the manuscript stating y-label versus x-label quantities (Kindly See Fig 8 given at the end).

11. Mean observed quantities (precipitation and runoff) are sometime reported in the captions and sometimes not, and only rarely they are reported in the plot. I would suggest to display in the Figures the observed quantities as reference whenever it is possible, and eventually to report them also the in the captions and/or even better in Table 1, where information on mean precipitation is missing.

We will add the mean observed quantities in the table as well as plot them as a reference in the figures where applicable (Kindly See Fig 3 given at the end).

12. Captions of many Figures provide the correspondence between 100 mm/y of runoff and discharge in cube meter per second. This information is often repeated in several captions. I believe that this information is not so crucial thus I suggest to remove this information from figure captions and to add the conversion as an additional raw in Table 1.

We will remove the 100mmyr^{-1} runoff equivalence to the discharge (m^{3}s^{-1}) from the figure captions and will add it to the Table 1 for each basin, in our revised manuscript (Kindly See Fig 8 given at the end).

13. Captions of many Figures are mainly copied and adjusted with the new information regarding the second, third, fourth basin. I suggest to careful write the caption for the first one of each series of Figure, and to report only the additional new information in the following, making reference to the first Figure with the full caption (e.g. "Same as Figure XX, but for the Ganges Basin, where mean precipitation is … or runoff is …).

The repetition of text within figure captions will be removed by referring them to the information already stated in the previous figure captions (Kindly See Fig 3 given at the end).

14. Maybe also that same Figures could be aggregated in larger plates. E.g. merging Figure 2 and 3 can originate a single plate with 4 subfigures (and similar merging could be done with following figures), but this also depends on the final formatting of the paper. For sure this would help the reader.

According to the final formatting of the paper, the relevant figures will be aggregated where possible. We will also make the figure legend uniform among all the figures (Kindly See Fig 14 given at the end).

15. Captions of Figures 4, 5, 6 …: now reference (a) follows the description of the first subplot, and reference (b) follows the description of the second subplot. It is a common convention that the reference should precede the description. Please correct all captions where this comment applies.

References to the subplots within figures will precede the description of the subplots in the next version of the paper (Kindly See Fig 3 and Fig 8 below).
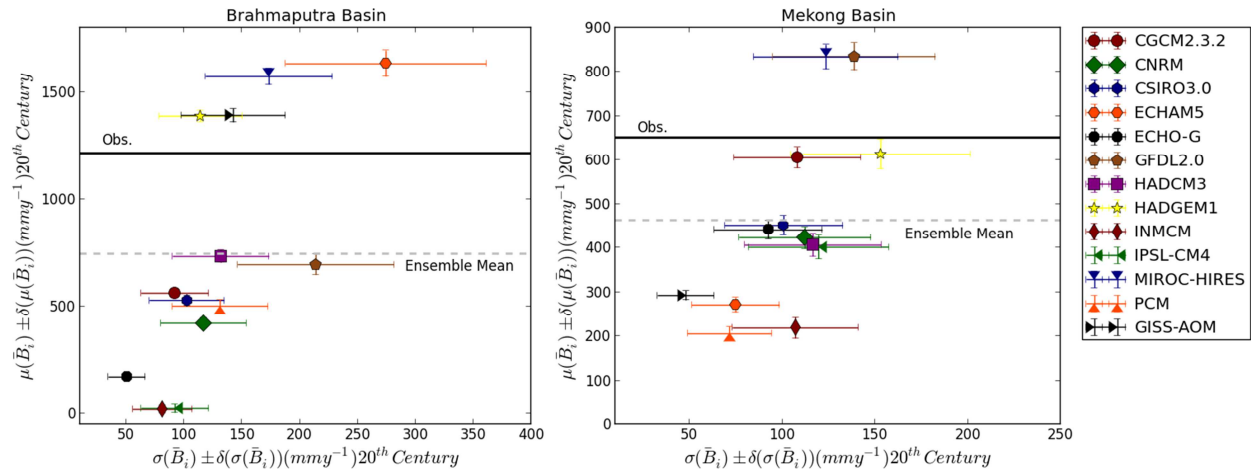
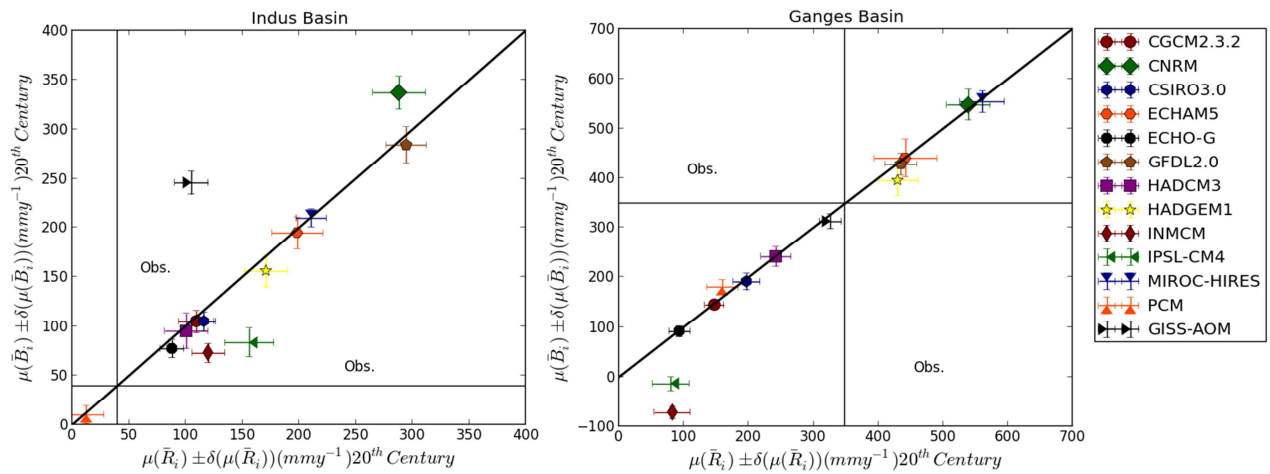Fig. 3. Same as Figure 2, but for (a) Brahmaputra Basin, (b) Mekong Basin.

Fig. 8. Estimated mean annual basin-integrated water balance versus simulated mean annual basin-integrated total runoff (surface + sub-surface) (markers) and their 95% confidence intervals (lines) for XX Century climate (1961-2000) for (a) Indus Basin, (b) Ganges Basin.
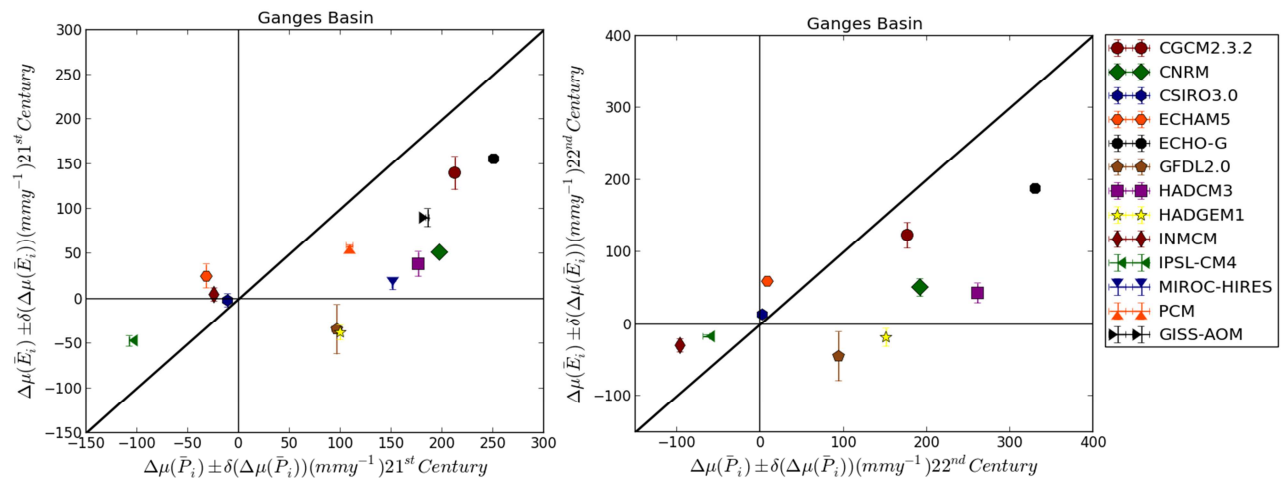

Fig. 14. Same as Figure 11, but for the Ganges Basin.