We thank the anonymous referee for his/her thorough review and his/her helpful comments. In the following, we would like to respond to his/her major points and detailed comments:

The paper is basically a study of how uncertainties in remote sensing data translate to uncertainties in a number of hydrological variables and indicators. This is interesting in itself; it is not clear what the outcomes say about the proposed water accounting sheets. The usefulness of many of the proposed indicators should follow from the relevance they have for decision making. The fact that there are uncertainties is problematic and should be dealt with, but the absence (presence) of uncertainties does not add to (subtract from) the usefulness of the proposed accounting framework.

I have three major comments:

1. What is the value of annual data on all the indicators presented and estimates of the inaccuracy in the annual data given that water scarcity manifests itself within the year, in specific months?

   Response: The WA+ can be used to generate water accounts with higher temporal resolution that annual (monthly for example). This paper aims to investigate and introduce a standard methodology to assess the impact of error in input RS data on reliability of outputs of WA+. The same methodology can be used to capture reliability of monthly values, should the accounting be done at monthly scale.

2. As for me there are a lot of questions on definitions of terms and indicators used in Tables 2-3 and Figs. 5-7. I will detail those questions below.

   Response: The terminology used in this paper is based on the standard WA+ terminology that has been reviewed, approved, and used by peers. While we appreciate the referee's interest and his remarks, for the sake of consistency this paper cannot deviate from the already defined terminology.

3. I am puzzled by the conclusion that it is recommended not to use the estimated "utilized flow" and "basin closure fraction" in policy decisions because of the low reliability of the estimates. These indicators are among the most important indicators, more relevant than the underlying variables such as P, ET etc. I can well imagine that uncertainties accrue in top-level indicators, but is the presence of uncertainties a reason not to base decisions on these indicators? In the end they may be more inaccurate, but they are most relevant.

   Response: The sentence needs to be rewritten. It should read "in case of Awash basin in the study period the "utilized flow" and "basin closure fraction" (the degree to which available water in a basin is utilized) have a high margin of error and thus a low reliability." The paragraph will be revised to better communicate the meaning.

Detailed comments:

p.1127 line 1-4: Why speak about WA and WA Plus? Simply based on the chosen term it is suggested that WA+ is better than WA, while it seems to me that in many cases WA Plus is complementary to WA, rather than an alternative. The two accounting systems are based on different sources (field measurements versus remote sensing images); I guess that these sources enrich each other in terms of the information they provide.

Response: p.1127 line 1-4 are to provide an understanding of WA+ origins to reader. It is not to say WA+ is better than WA. The paragraph will be revised to communicate this more effectively.

Section 2.2: Nothing is said on the required temporal and spatial resolution level of the data on the four sheets. Later on it appears to me that all data are presented on annual basis. This is a poor basis for decision making, since water use, availability and scarcity strongly vary within the year.

Response: We agree with reviewer that capturing temporal variations and reflecting on them is of great value for decision making. There are two points here; 1-WA+ can be used for such purpose, if input data is, for instance, have monthly temporal resolution the outputs of 4 sheets will be for every month. 2- Annual figures also have their own value and are of great importance for policy making and understanding the river basin water management.

We will reflect on this issue in the paper.

p.1140 line 14 & Fig. 8: I don't understand the two lower graphs in the figure. What is on the x-axes of these two figures? I understand that there is a normal distribution of P and ET (the two upper graphs), but I don't see what is meant by the "distribution of the area of irrigated crops", let alone that I understand that this is a bi-modal distribution.

Response: In simulations the total basin area is 116 449 km2 was kept constant. What changed in 1000 simulations was the distribution the total area among to different land use classes. Two graphs show simulated variability of the area of two example classes "irrigated area" and "Closed to open shrublands".

Table 1: it would be useful to specify the period considered when providing numbers for "long-term" P and ET.

Response: Will be revised to include the period of these estimates.

Comments on terms in Table 2:
- I find the term "exploitable water" a dubious term. From Fig.5 I see that it is simply defined as "runoff", so why not call it runoff then? It's a dubious term, because in practice one cannot exploit all runoff, there will always be flows that are difficult or impossible to capture, e.g. flood flows or deep underground runoff flows. In the proposed terminology, they make the difference between "exploitable" and "available" water, but I don't think this terminology is clear. To me it seems that "available" encompasses more than "exploitable", but it appears to be just the opposite.

Response: While we appreciate the reviewer suggestions, the terminology used in this paper follows standard WA+ terminology that is introduced by Karimi et al. (2013) in a paper published in HESS.

- What is the temporal unit for dS? Is that daily, monthly, annual?

Response: dS is annual. The unit will be mentioned.

- The definition of "available water" is rather unclear. Fig.5 gives some more info, but what are "reserved outflows" and "non-utilizable flow"? Without clear definitions on how to calculate those variables, the terms remain empty. Reserved by law, by policy..? Environmental flows are generally not well protected, so in practice this means that they are not "reserved" in any formal sense and thus "available". It is necessary to clearly define non-utilizable outflow.

Response: Definitions of these terms have been discussed in details in the earlier published papers on WA+. However to help readers we will introduce them briefly in the paper.

- The reserved outflow fraction (=reserved outflow/outflow) doesn't indicate the degree of meeting the flows set aside for inter-basin transfer etc., it measures the fraction of outflow reserved for inter-basin transfer etc.

Response: The reserved outflow can be bigger than actual outflow. This happens when committed outflow (including environmental flows, downstream water rights, navigational flows, etc) is bigger than actual outflow. The reserved outflow fraction is meant to reflect on whether commitments are met or the outflow is actually less than committed outflow. For instance the fraction of >1 indicates reserved flows are not met.

Comments on Table 3:

- The term "managed ET" is unclear. According to the explanation a better term would be "manageable ET", but then still it's unclear what is understood under ET that can be managed (manipulated). ET can decrease and increase as a result of a great variety of human factors, some of which are likely to occur, others less likely.

Response: As explained above the terminology used in this paper follows the standard WA+ terminology.

- The irrigated ET fraction equals (ET in irrigated agriculture) / (ET in total agriculture). Is this what is meant indeed? Or is it more useful to look at the ratio: (ET of blue water in agriculture) / (total ET in agriculture)?

Response: Yes, The irrigated ET fraction equals (ET in irrigated agriculture) / (ET in total agriculture). The suggested fraction by the reviewer (ET of blue water in agriculture) / (total ET in agriculture) indeed could be very informative too.

Comments on terms in Fig.5:

- I assume that “managed water use” refers to net water withdrawal (consumptive water use, blue water footprint). Would be useful to refer to the other, more commonly used terms.

Response: In addition to blue water, managed water use includes ET from rainfall over land use classes that belong to this group (defined and discussed in Karimi et al (2013)) such as irrigated crops. It has broader definition than the blue water foot print. Consumptive use of water is ET in general and does not relate to the processes through which water has been evaporated.

Comments on terms in Fig.6:
- What is beneficial E?

Response: Beneficial E is evaporation from natural water surfaces is often beneficial, for example in cases where water bodies serve the purpose of fishing, aquatic birds, buffering floods, water sports, leisure, etc.

- What is non-beneficial T?

Response: While T is generally considered as beneficial, it can be considered non-beneficial in some cases such as weed infestations in cropland or in degraded landscapes, or when there are non-desirable plants.