

The concept of accounting has been floating around in the business world for many decades. This has been presented in the form of income statements, balance sheets, and cash flow statements to bolster the business operations of many listed and non-listed entities around the world. Considering its potential to resolve many issues, this fascinating concept has been embraced by many disciplines. Water science is one of them, which echoes this concept in the forms of water balance and water availability to address many demanding issues such as upstream/downstream conflicts and interbasin transfers.

In this manuscript, the authors employ an integrated modeling environment to evaluate the runoff composition in the Yarlung Zangbo river basin on the southern Tibetan Plateau, which nourishes around 2 billion human lives.

- 1) Most of the equations that are presented in the manuscript need to be rewritten. For example, eq. 3 should be written using a summation notation (see the attached file).

$$R_{glac,i} = \sum_{j=1}^n M_j$$

The subscripts are confusing (compare eq. 2 and eq. 3). To reflect the band of interest and the grid of interest, the dependent variable should have two subscripts (i.e., i and j).

- 2) The unit of the dependent variable in eq.2 is incorrect. Is it mm/day or mm?
- 3) The definition of "f" in eq.2 is incorrect. Are you referring to the proportion of glacier area in a particular grid whose total runoff is being calculated?
- 4) The variables in eq.4 need units to understand your calculations.
- 5) Refer to Part II