

The Stable Isotopes Approach as Tracers to Investigate the Origin of Groundwater In The Aquifer of Denpasar Plain Region, Bali

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Reviewer 1

Decision:

Substantial (major) revision is required.

Comments:

1. ABSTRACT should contain the background, research objectives, methodology, and research results. Research background needs to be added.
2. Eliminate "personal pronouns" such as we, you, me, etc. This article still uses "personal pronouns".
3. The „Hydrogeological setting“ chapter does not describe the hydrogeological conditions but contains a description of the geological conditions. Both Geology and Hydrogeology items should be discussed because this information will support the research results.
4. The chapter "Sampling and analysis" should be renamed to "Research Method," which describes research procedures, methodologies, sampling techniques, and methods of analysis.
5. Figure 3 and Figure 4 should be able to be combined into one image/figure.
6. To discuss the origin of groundwater, groundwater flow pattern data is needed to support the analysis of the origin of groundwater, so this article absolutely needs to add a map of the direction of groundwater flow.
7. Determination of recharge area based on topographic maps and land use maps is a big mistake. Determination of recharge area should be based on geological and hydrogeological conditions. I suggest using the existing groundwater recharge area map.
8. Figure 8 and figure 8 are irrelevant figures to use in determining the recharge area.
9. The recharge area determined by the isotope technique still needs to be validated by analysis of geological conditions and hydrogeological conditions. A review of the geological and hydrogeological conditions is required to provide an overview of the hydraulic properties of rocks in the recharge area.

Reviewer 2

Decision:

Substantial (major) revision is required.

Comments:

The article is interesting, but in my opinion it requires significant improvement. My comments are as follows:

- authors should clearly define the main objectives and specific objectives of the work
- the research area needs to be supplemented with additional information that is important for readers from outside Bali, e.g. the amount of annual precipitation totals and their distribution during the year, air temperature, population inhabiting a given area. The land use map is presented only in Fig. 9 and is illegible, as is the topographic map 9. I consider the main mistake to be the lack of a geological profile that shows the groundwater level and the nature of the geological structure. The hydroizohips map is missing. The period of the conducted research should be characterized against the background of many years.
- research methodology requires explanation. Perhaps the methodology should be presented in the form of a diagram. Indicate what decided about the selection of the measurement points,
- the presented maps (fig. 1 and 2) lack explanations, some maps repeat or are illegible