

# Review of: "Saltwater Intrusion in Coastal Aquifers: A Comprehensive Review and Case Studies from Egypt"

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**Potential competing interests:** No potential competing interests to declare.

I am very happy that you have given me an opportunity to review the paper in my research domain.

In the paper, the authors have put their efforts into highlighting the problem of sea water intrusion, which is a general coastal problem that every country is facing. Due to the limited water resources in Egypt, including the only source of the Nile River and scanty rainfall, the authors are enthusiastic to bring the problem to the attention of the public as well as the administration of the country, which they may be facing soon.

Since it is a review paper, the authors have focused mostly on a literature review. Anyhow, I would like to add a few suggestions for improvement of the standard of the paper.

1. I suggest incorporating the coastal area base map of Egypt with the potentially vulnerable zones of SWI.
2. In the beginning of the paper, under the chapter "Introduction," the problem presented should be general, not from the references of the authors.
3. I advise adding the general topography, physiography, climate (annual rainfall, etc.), hydrogeology, geology of the country on a regional scale. The water table conditions, types of aquifers, and their recharge sources also need to be mentioned. The surface water bodies (rivers, canal network, ponds, tanks) should also be presented on the map.
4. They should collect at least some available hydro-chemical data along the sea coast from research institutes, government agencies, educational institutes, or water quality monitoring agencies to present the situation of the SWI in graphical forms to defend the work.
5. At least chloride and bicarbonate data of groundwater should be collected to plot the ratios and demarcate the sea water-affected areas in some parts of the country, and the work will be appreciated by the scientists.
6. The other sources of pollution of the groundwater may also be observed in the country due to urbanization, irrigation, industries, or domestic sewage waters.

In addition, I would like to add the following observations to the paper for appropriate corrections:

a) Page No.4/23: In the equation, the following correction is needed:

$h$  : Thickness of freshwater zone **below** sea level.

b) Page No. 13/23, in the reference (2012, Khalil et al. [46]) *Figure number* is not mentioned in line number 3.

I appreciate the authors for bringing out the problem of sea water intrusion in the coastal zones of Egypt to alarm the administration. It is worth publishing in a local journal.