

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.

This research can be classified as good review article. However, in the section on case studies from Egypt, it is preferable to include maps that explain the situation of sea water interference so that this becomes clear to the reader. These maps are preferable to explain the piezometric or groundwater levels. It is also preferable to shed light on more previous studies on other regions of Egypt, explaining the reasons for the salinization of groundwater with increasing withdrawal rates (as in El-Moghra Region in Northwestern Desert of Egypt). El-Moghra region could be taken as an ideal example of the aquifers vulnerable to the salt water intrusion in Northwestern Desert of Egypt. It is one of the most promising areas for agricultural development in Egypt in recent years (Egypt's Future Project). It is also preferred to include a list of the affected aquifers in Egypt those are subjected to the risk of salt water contamination caused by the salt water intrusion. Examples of these maps are found in the suggested literatures below. However, I appreciate the authors' efforts in collecting the scientific material in this good form.

Here are some examples of researches that might be useful to the authors:

1. **Hossam H. Elewa, Ahmed M. Nosair, Amin Ibrahim, Martina Zelenakova, Katarzyna Pietrucha-Urbanik, Hazem M. Habib, Nermeen A. Abdel Moneam, Rania M. Ragab, Elsayed M. Ramadan, 2024.** Use of remote sensing, spatial and geophysical modeling, and real recharging capabilities to identify suitable areas for groundwater exploitation in dry coastal areas. *Journal of Environmental Management*, <https://doi.org/10.1016/j.jenvman.2024.121243>
2. **Elewa, H.H.; Nosair, A.M.; Zelenakova, M.; Mikita, V.; Abdel Moneam, N.A.; Ramadan, E.M., 2023.** Environmental Sustainability of Water Resources in Coastal Aquifers, Case Study: El-Qaa Plain, South Sinai, Egypt. *Water* 2023, 15, 1118. <https://doi.org/10.3390/w15061118>
3. **Abbas M. Sharaky, Hossam H. Elewa, Alaa M. Kasem, 2019.** Impact of the Grand Ethiopian Renaissance Dam (GERD) on Gezira Groundwater, Sudan. *Published in: Grand Ethiopian Renaissance Dam Versus Aswan High Dam* (Handbook of Environmental Chemistry, 10.1007/698_2017_187). *Springer International Publishing*. https://link.springer.com/chapter/10.1007/698_2017_187
4. **Elewa H.H., Shohaib R.G., Qaddah A.A., Noursir A. M., 2013.** *Determining Groundwater Protection Zones for the Quaternary Aquifer of Northeastern Nile Delta Using GIS-Based Vulnerability Mapping*. *Environ Earth Sci.*, Volume 68, pages 313–331 (2013) DOI: 10.1007/s12665-012-1740-x. <https://link.springer.com/article/10.1007/s12665-012-1740-x>
5. **Elewa H.H., Noursir A.M. 2012.** "Assessment of Groundwater Quality of the Quaternary Aquifer in the Eastern Part of

the Nile Delta". Geological Society of America (**GSA**). **Abstracts with Programs**, v. 44, no. 7, p.

118. <https://gsa.confex.com/gsa/archives.cgi>

6. **Elewa H.H.**, Fathy R.G., Qaddah A.A., 2010. The Contribution of Geographic Information Systems and Remote Sensing in Determining Priority Areas for Hydrogeological Development, Darb el-Arbain area, Western Desert, Egypt. Hydrogeology Journal, Springer Verlag, Heidelberg, Berlin. v. 18 (5):1157-1171. DOI 10.1007/s10040-010-0590-4.
7. **Elewa, H.H., 2008**. Prediction of Future Drawdown of Water Levels of the Pleistocene Aquifer System of Wadi El-Assiuti Area, Eastern Desert, Egypt, as a Criterion for Management and Conservation. Resources, Conservation and Recycling J., Elsevier, Amsterdam, The Netherlands, v. 52: pp. 1006–1014.
8. **Elewa H.H.** and Nahry A.H., 2008. Hydro-environmental Status and Soil Management of the River Nile Delta, Egypt. Environ Geol (2009) v. 57:759–774, Springer Verlag, Heidelberg, Berlin
9. Salah M. Abdel Mogith, Sawsan M.M. Ibrahim, Ragab A. Hafiez, 2013. GROUNDWATER POTENTIALS AND CHARACTERISTICS OF EL-MOGHRA AQUIFER IN THE VICINITY OF QATTARA DEPRESSION. Volume 63, Issue 1, December 2013, Page 1-20. DOI: [10.21608/ejdr.2013.5821](https://doi.org/10.21608/ejdr.2013.5821)
10. Sultan A. S. Araffa, Maha Abdelazeem, Hassan S. Sabet, Ahmed M. Al Dabour, 2021. Hydrogeochemistry of groundwater at El Moghra area, north Western Desert, Egypt. NRIAG Journal of Astronomy and Geophysics Volume 10, 2021 - Issue 1. <https://doi.org/10.1080/20909977.2021.1913363>