

# Review of: "Reducing non-revenue water in Egypt using GIS"

Mouhssin El Halim<sup>1</sup>

<sup>1</sup> University of Liège

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

This document deals with the problem of unaccounted-for water in Egypt, which means all losses from the water supply system, whether illegal or not. The main objective is to reduce water loss in distribution systems using the geographic information system (GIS). The subject is important, and the manuscript is well-written except for a few remarks:

1. Avoid abbreviations in the abstract.
2. The abstract needs to be revised to conclude the research objective, the study technique, and the main results.
3. The introduction should include a brief summary of past works on the same topic, with references.
4. Who measured this 40%? Where does this value come from (unaccounted-for water (UFW), which corresponds to all losses in the system, whether illegal or not, often exceeds 40% of all water produced)?
5. I would have liked to see the methodology in paragraph form rather than in bullet points.
6. Figure 1 is not clear; it doesn't show the location of the study area!
7. It's important to separate the methodology from the study area. The study area should be described in a paragraph to avoid any misunderstandings.
8. Add the characteristics of the satellite map used in the materials section (type, sensor, spatial resolution, radiometric resolution, etc.).
9. Figure 5 is unclear and does not clarify the method used.
10. Again, avoid bullet points and use paragraphs (problem solution section).
11. Why is the data used very old (2008 and 2009) when recent data should be used?
12. The conclusion needs to be revised.