

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

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

Overall, you present a strong case for the importance of addressing high rates of Unaccounted for Water (UFW) and outline clear objectives and steps for reducing UFW. I think focusing on a pilot program in one area first to test the process and gain buy-in is wise.

Some key strengths I see:

- Emphasizing the major financial, operational, and performance strains caused by high UFW, making a compelling case for taking action to reduce it.
- Clearly laying out the main objective (reduce UFW) and the systematic process to achieve it through leak detection, meter fixes, reducing illegal connections, improving billing, etc., with the support of GIS mapping/databases.
- Providing specific metrics before and after - the 32.2% and 4.5% reductions in UFW percentages demonstrate concrete impact. It puts the scale of improvement in perspective.
- Mentioning additional ongoing and future plans like using handheld devices for meter reading, installing meters on government buildings, a staff incentive program, bulk meters, and orientation for staff. This shows the long-term, enterprise-wide commitment to the effort.

Some potential areas of improvement:

- More details on the timeline, costs/resources involved, stakeholders coordinated, and challenges faced could tell an even more compelling story.
- Discuss if the reductions meet expectations and what efficiencies/quality gains have resulted from staff, data improvements, etc., beyond just UFW rates.
- Provide more specifics on future objectives - target UFW percentages, areas/infrastructure prioritized, technologies leveraged, etc.

Overall, very informative though - you demonstrate clearly the value gained and the approach/impact of reducing water loss through leakage and theft.

