Authors
- Shaee Hersh Qadir
- Ahmed Azad Ibrahim

Hasar Partners – Data Analysis Team

11-Year Analysis of the Water Situation in Darbandikhan, Dukan, and Hamrin Lakes

Abstract

Scenes from an eleven-year analysis of the water situation of Darbandikhan and Dukan and Hamrin Lakes.

- This analysis provides a comprehensive examination of the Darbandikhan, Dukan, and Hamrin Lakes aquatic situation over the past decade.
- It underscores the significance of ongoing data analysis in guiding informed decision-making for water management practices.
- The study aims to address water-related challenges and promote sustainable water use in Kurdistan region of Iraq and similar regions.

Introduction

- Water is an important source of life. What is the situation of water resources in the Kurdistan Region? Using modern technology to obtain 11-year data of three lakes in the Kurdistan Region and Iraq, what do the data tell us?

Darbandikhan Lake

Hamrin Lake

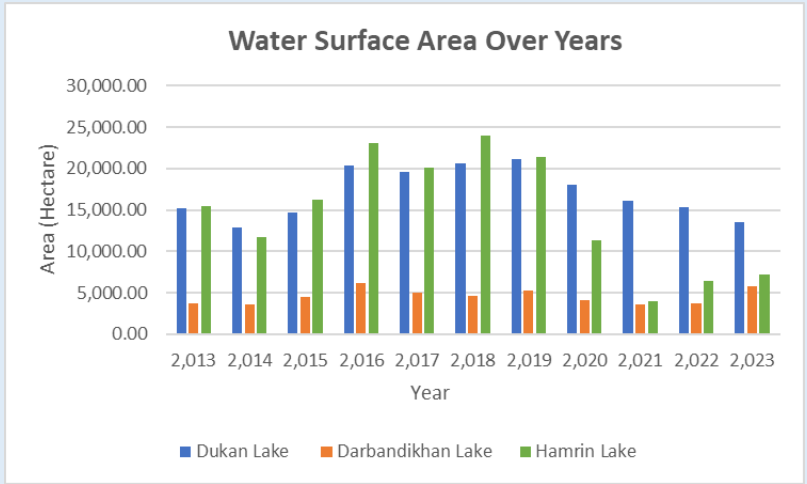
Dukan Lake

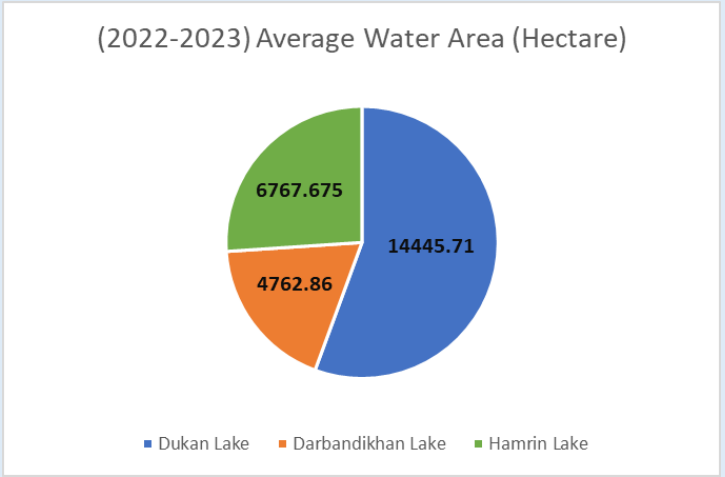
Methods and materials

- **The use of the Sustainability Lab tool** for data collection, which relies on satellite imagery, serves as the primary source of data.
- **Modern technology** is used for both data collection and analysis, ensuring accuracy and efficiency in studying water dynamics over a given period of time.
- **Graphical Representation,** We transformed data into visual formats for clarity.

Data and Results

- **Reasons for these differences between lakes could include:**
  - ✓ Precipitation Variability
  - ✓ Water Usage
  - ✓ Evaporation
  - ✓ Geographical Features
  - ✓ Water Management Policies
  - ✓ Climate change





- (2022-2023) Average annual change in water area (Hectare) in all three lakes.

Discussions

- ✓ Using data and data analytics to make better decisions
- ✓ Using new technology and smart ideas
- ✓ Working together to solve problems and better manage water resources

Conclusion

"This analysis provides valuable insights into the water status of the lakes over the past decade, underscoring the critical role of ongoing data analysis in guiding informed decisions for participatory water management practices." Towards the development of resilience and environmental management in Kurdistan region of Iraq and similar regions."