

The impact of rising temperatures on vegetation cover

Al-Dreez Village –Wilayat of Ibri
2016 – 2025

Prepared by the students:

Aya Sultan Al Ghafri

Ahad Sultan Al Ghafri

Grade: Tenth

Abstract

The report examines the impact of rising temperatures during the period from 2016 to 2025 on vegetation cover in Al-Dreez Village, based on data from NASA. The data show a general upward trend in temperatures in recent years, leading to increased evaporation rates and reduced soil moisture. In addition, data from the Normalized Difference Vegetation Index (NDVI) indicate a decline in the density and health of vegetation cover during certain seasons, particularly during periods of extreme heat and drought, reflecting clear plant stress. The report confirms the existence of an inverse relationship between rising temperatures and the deterioration of vegetation cover quality, emphasizing the importance of water resource management and the protection of the plant environment to mitigate the impacts of climate change on the village.

Introduction

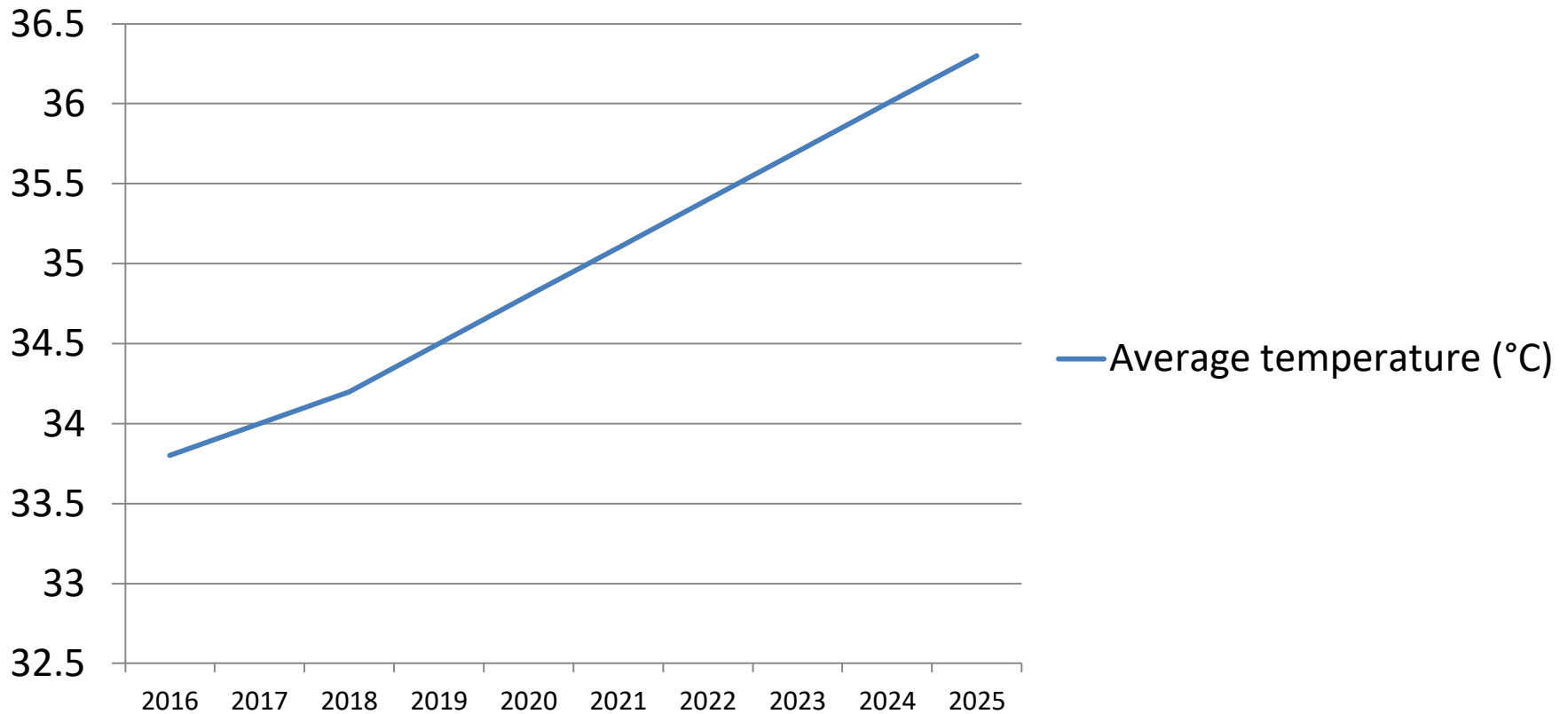
Over the past ten years, Al-Dreez Village has experienced clear climatic changes, characterized by rising temperatures, which have negatively affected vegetation cover and agricultural resources.

Research Question

What is the impact of rising temperatures on vegetation cover in Al-Dreez Village during the years from 2016 to 2025?

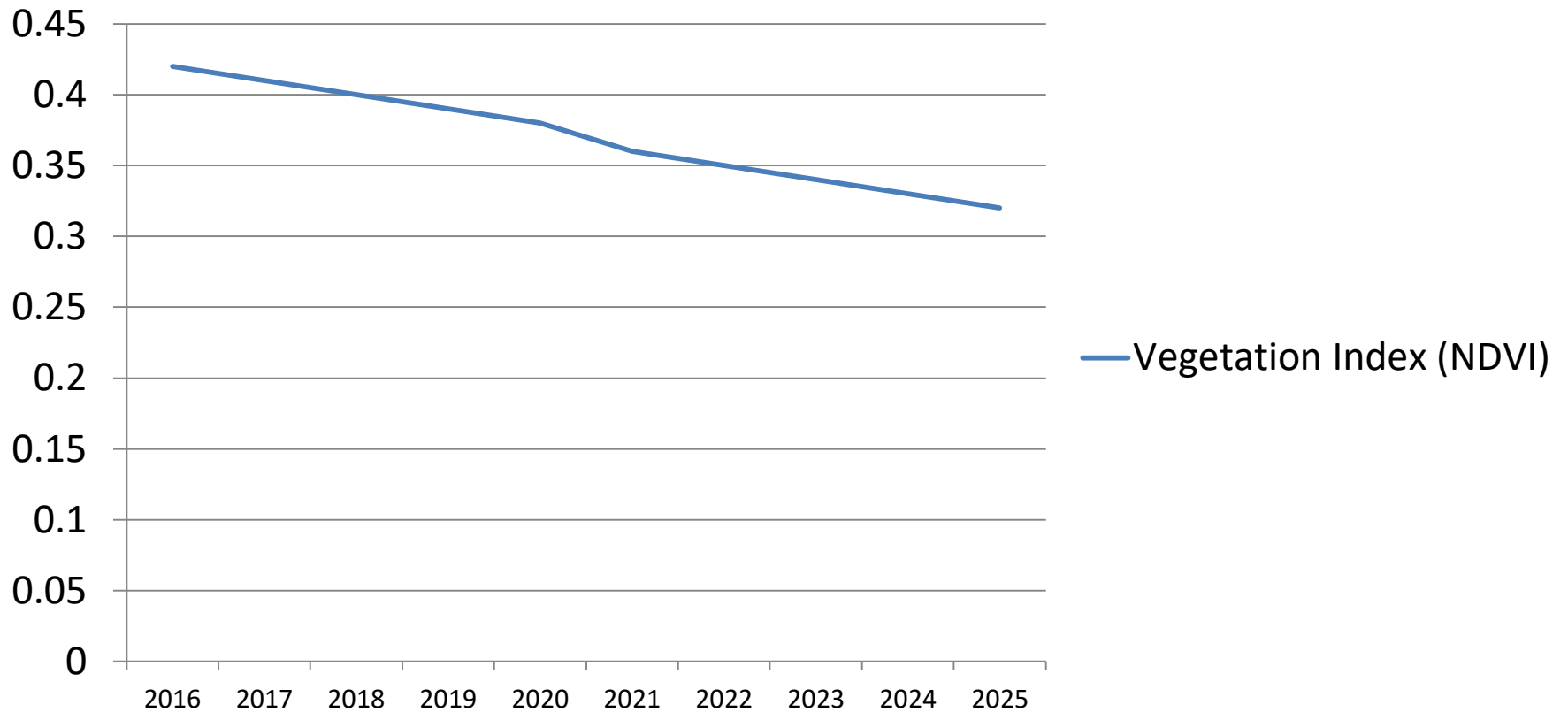
Change in the average temperature (2016–2025)

Average Temperature (°C)



Change in vegetation cover in Al-Dreez Village (2016–2025)

Vegetation Index (NDVI)



Google Earth pictures (2016–2025)



- *Aerial image of Al-Dreez Village in 2016*
- *Aerial image of Al-Dreez Village in 2025*
- *The images show a reduction in vegetation cover and changes in land use*

Results



A gradual increase in
temperature

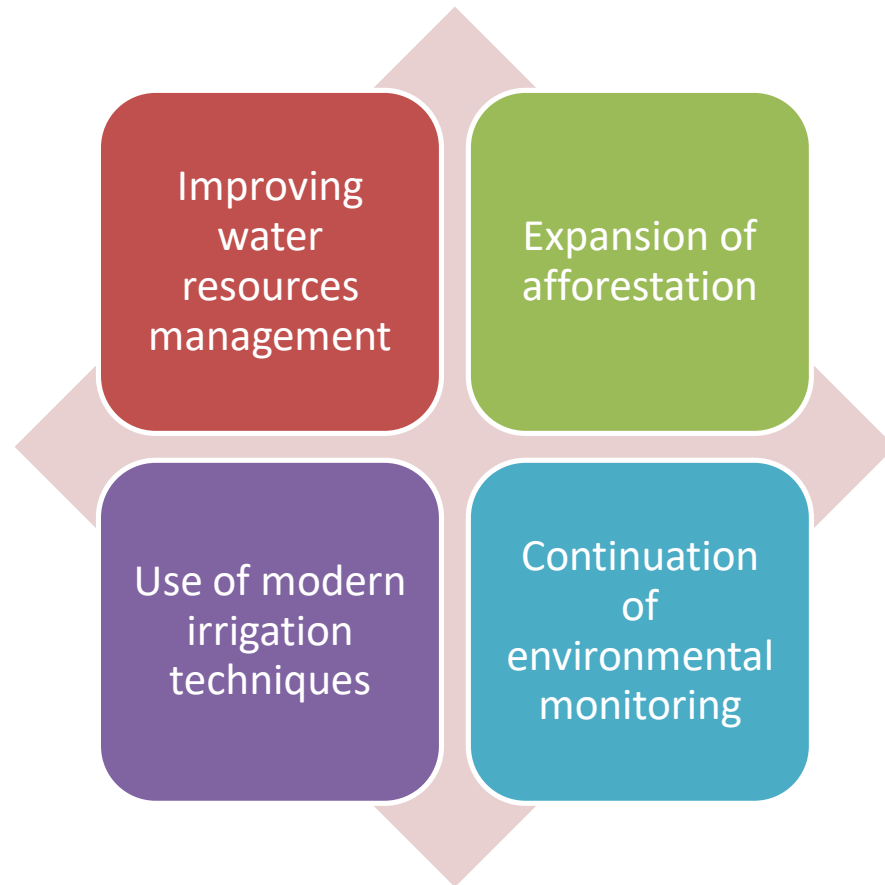


A significant decrease
in vegetation cover



There is an inverse
relationship between
temperature and
vegetation cover

Recommendations



Conclusion

The study proved that the increase in temperatures over ten years had a direct impact on the decline of vegetation cover, which calls for taking sustainable environmental measures in Al-Dreez village.

Tags

I work with satellite data

We use NASA satellite data in addition to secondary protocol data

I am steam provisional

Applied science, mathematics, engineering, and technology

I am collaborating

I collaborated with officials, scientists, and farmers

References

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Knoema Climate Knowledge Portal — Oman (World Bank / CRU climatology).
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National Afforestation Initiative Data Portal / Tree-Planting Initiatives in Oman. Open Data