



REVIEWER'S REPORT

Manuscript No.: IJAR-57276

Title: Assessment of Coral bleaching due to thermal stress over Indian Ocean

Recommendation:

Accept as it is

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality			x	
Techn. Quality		x		
Clarity			x	
Significance		x		

Reviewer's ID: JPR- 171

Detailed Reviewer's Report

This manuscript presents a useful approach for assessing coral bleaching using Marine Heat Wave and remote sensing reflectance in the Andaman region. However, several major issues require attention before publication. First, the methodology lacks clarity regarding the calculation of MHW percentage. Equation 1 is incomplete (missing definition of "weightage" and "ExpreadingAnomalies"). Second, the validation of the regression model ($R^2 = 0.95$) is based on very few in-situ data points; the number and source of observations are not adequately described. Third, the spectral threshold ($Rrs412/Rrs531 = 2.5$) is derived from limited samples without uncertainty analysis or validation against independent data. Fourth, the manuscript contains numerous typographical errors, incomplete citations, and inconsistent formatting (e.g., figure numbering, reference list). Fifth, the discussion lacks comparison with similar studies from other coral reef regions. Finally, the conclusion overstates operational readiness without demonstrating reproducibility. The authors must provide complete methodological details, add uncertainty estimates, and thoroughly revise language and formatting. Decision: Major revision.