



Model Indices Development for Knowledge-Based Classification of Wetland Using IRS-P6 AWiFS Data: A Case Study in Gujarat

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Abstract: An automated knowledge-based classifier has been developed to decipher wetland features (water, mudflats, aquatic vegetation) in Gujarat, India from Resourcesat-1 AWiFS data of post-monsoon (October 2004) and premonsoon (April 2005). Model indices have been developed for both the dates using spectral knowledge of Red, NIR and SWIR bands. The classifier is developed using these indices and incorporating NDVI, green, red, NIR, and SWIR radiance values. Results of knowledge classifier have been compared with the results obtained using MXL classification over the same set of data. Wetland area in Gujarat for both dates has been compared with the wetland area estimated using MXL classifier.

Keywords: AWiFS, Wetlands, NDVI, Knowledge based classifier.