



## Regional Evapotranspiration using Remote Sensing Data

By Ahmed, Ayoub

Condition: New. Publisher/Verlag: LAP Lambert Academic Publishing | New Method, Estimation, Fusion, DSS | Evapotranspiration (ET) constitutes a large portion of the hydrology cycle and outdo of the important parameter in the water budget in the arid areas. Measurement of the water vapor cycle of the land surface is crucial in improving the management of the limited fresh water resources. This book investigates and generating a new algorithm for estimating ET in the arid mountainous areas. The M-SEBAL (Modified Surface Energy Balance Algorithm for Land) was developed based on original SEBAL algorithm produced by Bastiaanssen in 1995. Operational M-SEBAL model estimates ET of mountain areas of Sana'a basin in Yemen using Remote Sensing data from various sensors and appropriate meteorological data. Fusion ET from Landsat images and ET from NOAA-AVHRR images was also done. Application of M-SEBAL at a regional scale was performed using Landsat TM and NOAA-AVHRR imagery for the Sana'a basin, Yemen. The results indicated that M-SEBAL performed well for predicting daily and monthly ET for mountainous agricultural areas. Some results were obtained for volcanic areas, basalt areas, desert areas and also arid coastal areas, using prediction of surface parameters. Regional DSS for ET was done. | Format: Paperback...



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