ENVIRNOMENTAL IMPACT ASSESSMENT USING NEURAL NETWORK MODEL: A CASE STUDY OF THE JAHANI ,KONARSIAH AND KOHE GACH SALT PLUGS, SE SHIRAZ, IRAN

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ABSTRACT:

This study employs Neural Network model to estimate envirnomental impact assessment using Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER). VNIR and SWIR datasets of ASTER were assessed in mapping the rock units of three salt plugs (Jahani,konarsiah and Kohe Gach), SE Shiraz, Iran, allowing for a comprehensive assessment of their envirnomental impacts on adjacent plains. Principal components analysis (PCA) and Neural Network Methods examined the relationship between salt plugs lithology and surrounding regions. PC colour composite and geological map of the region were used to create training areas for each geological unit on the image and applied to train the Neural Network Model. In this paper Neural Network Model used with two methodologies to detect and locate the places that have been affected by lithology of the salt plugs. For the major classes the obtained results showed good useful information for identifying their environmental impacts.

TOPIC: Remote sensing applications
ALTERNATIVE TOPIC: Multi-spectral and hyperspectral remote sensing