

# APPLICATION OF SPACE TECHNOLOGY TO ASSESS REFUGEES IMPACT ON THE NATURAL ENVIRONMENT OF WESTERN AND SOUTHERN ETHIOPIA

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## **SUMMARY**

The Study is conducted by the Ethiopian Mapping Authority and UNHCR-RLO. The main objective is to assess the extent of environmental impact caused by the refugees and related factors and to provide appropriate data for planners and decision makers.

The study areas materialised using multi-temporal (time series) data in such a way that one can compare the environmental situations of the four camps (Bonga, Sherkole, Dimma and Pugnido) of western Ethiopia. Major sources of data and information include Landsat TM images, aerial photographs, topographic and thematic maps, attribute data etc.

Digital Image Processing techniques and Geographic Information System have been applied to capture, process, analyse visualize and integrate multiple source data.

Finally the output presents the actual and current situation of the physical environment which is found to be damaged mainly by refugee related factors.

Although the UNHCR and the Ethiopian Government have been taking positive measures to protect the natural environment, but still needs more participation by all concerned groups.

In the meantime, the problems related to space technology especially multi-spectral data classification/interpretation using digital systems are thoroughly assessed. Infact remote sensing techniques are found to be cost effective, timely, and informative when they are properly utilised.