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MAPPING OF CURRENT LAND USE AND LAND COVER IN ALBERTA'S MILK RIVER REGION

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Integrated resource management planning facilitates comprehensive decisions for the allocation of natural resources in Alberta. Biophysical resource evaluations are an integral component of the decision-making process. This pilot project was undertaken by the Resource Evaluation and Planning Division of Alberta Energy and Natural Resources in conjunction with the Alberta Remote Sensing Centre to examine the feasibility, limitations and advantages of using digital LANDSAT data in conjunction with simple interpretive aids as a source of current information for reconnaissance scale (1:250 000 to 1:50 000), regional land use and land cover mapping.

The study area is located in the southeast corner of Alberta, adjacent to the Canadian-American border. Selection was based on the area's ecological diversity and wide range of land covers. The region, in general, occurs within the grassland bioclimatic zone and is significant for domestic grazing, arable land, and mineral, water, recreation resources.

A supervised classification was performed after the image data had been geometrically corrected to the Universal Transverse Mercator grid system. This paper outlines in detail, the mapping procedures employed, the accuracy of the resulting map products, and estimated costs of current land use and land cover map production relative to more conventional methods.

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