Human Footprint Mapping

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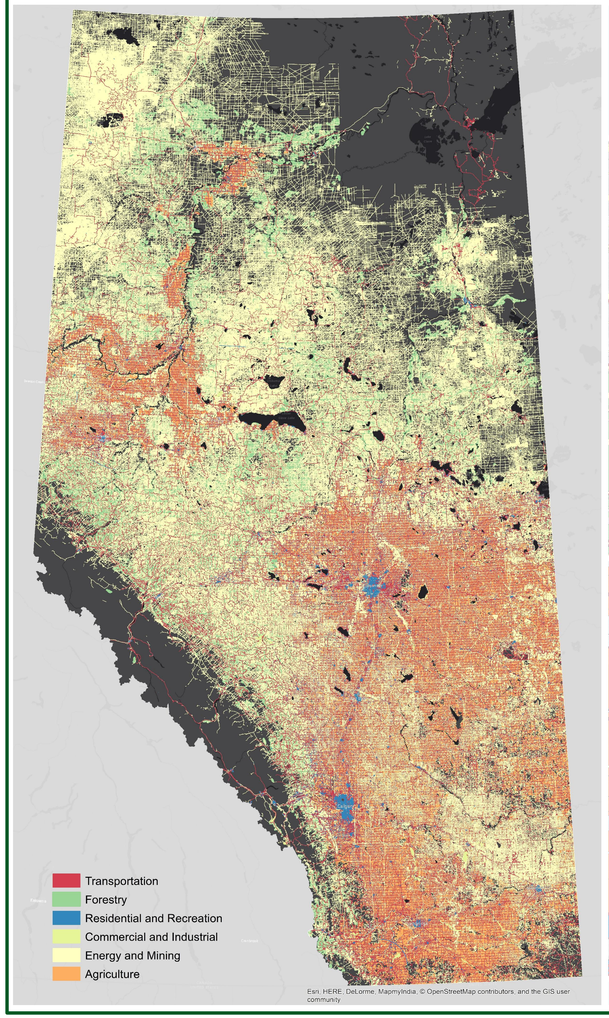
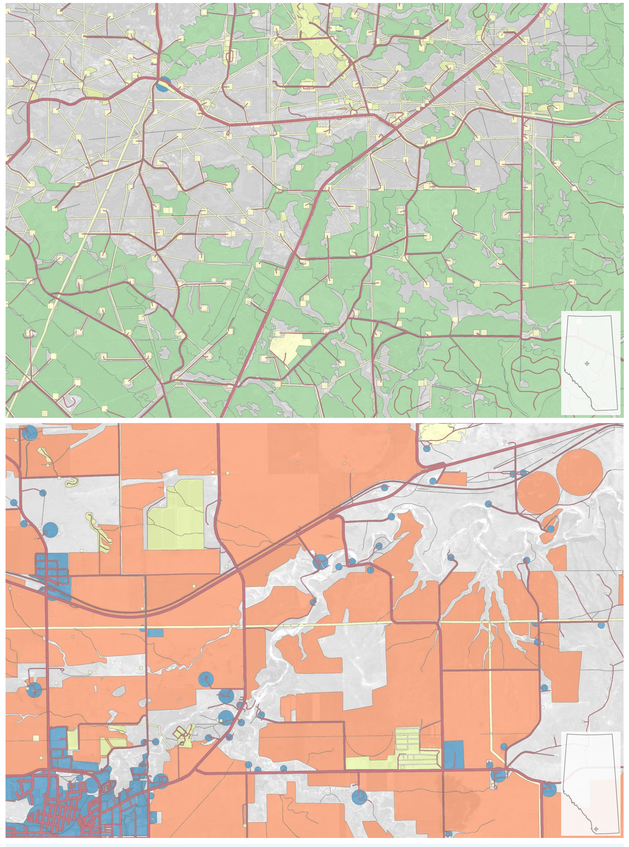
Human Footprint in Alberta

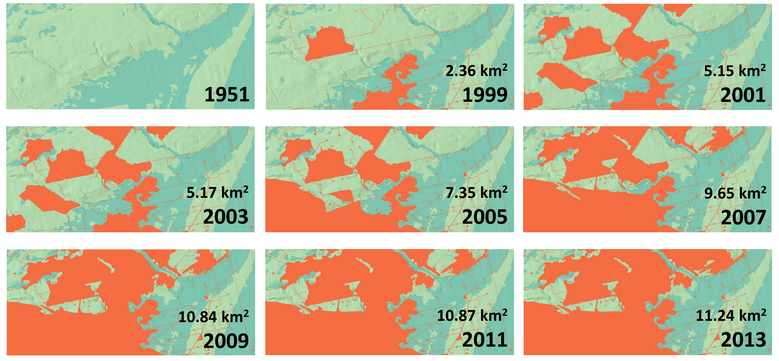


Human footprint features cover about 30% of the total land area in Alberta (2012 Human Footprint Inventory). The province-wide human footprint layer contains over four million polygons, mapping more than 80 different human footprint types and cataloging them into reporting categories.

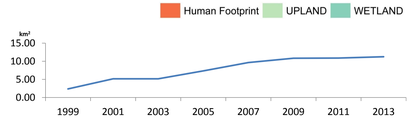


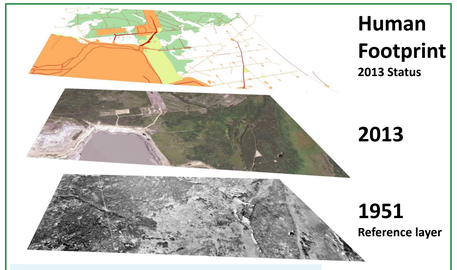
An example of human footprint in forested and agricultural landscapes.

Human Footprint at ABMI monitoring sites

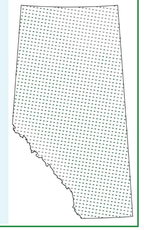


An example of human footprint increase in one of the ABMI sampling sites from 1999 to 2013. An orthophoto from 1951 was used as a reference layer.

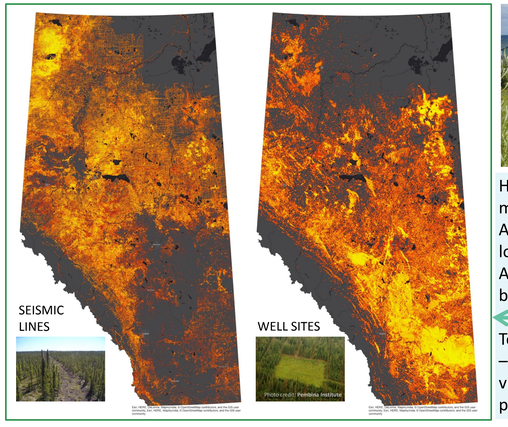




The human footprint types are mapped annually - since 1999, in 3 km x 7 km rectangles systematically spaced on a 20 km grid across the entire province. Orthorectified satellite scenes (IRS, SPOT5, SPOT6) and aerial orthophoto mosaics have been used as the source for mapping.

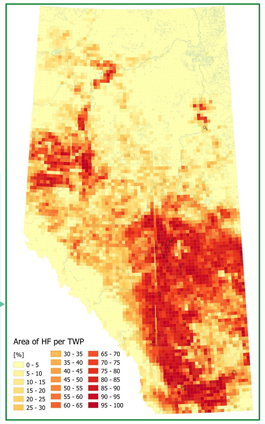


Analysis of Human Footprint



Human footprint datasets are suitable for geo-statistical modeling and analysis.
An example of "heat-map analysis" visualizes geographic locations of higher densities of seismic lines and well sites. Areas with high occurrence of these features are displayed in bright yellow colours.

Total area of human footprint per "Township" (6 mile x 6 mile – Alberta Township Survey) is displayed in a colour scale to visualize distribution of the human footprint within the province.



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Delivery Partners: Royal Alberta Museum, Alberta Innovates, University of Calgary, University of Alberta

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