

# Can A Flood Be Classified As Either A Merit Or Demerit In Siberia?

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**Abstract:** Floods are among the most serious natural disasters in high-latitude regions. Floods not only affect human activities but also affect various components of the ecosystem through sediment erosion and deposition. Therefore, understanding the potential impacts of climate change on the occurrence and magnitude of ice-jam floods is important in formulating sustainable flood risk management policies. However, assessing flood impacts is difficult experimentally. Most of our understanding of the patterns and processes of ice-jam floods are derived from short-term plot-scale measurements. Satellite remote sensing is an efficient technique for large-scale monitoring. The objective of this study is to detect the seasonal to interannual trends of flood occurrence using Landsat time-series images.

**Keyword:** disaster, flood, global warming, Landsat TM/ETM+, Siberia