



Quality control and homogenization of streamflow data

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The latest decades have witnessed many developments on statistical methods, particularly in the analysis of trends, shifts, variability and other important factors on climate time series. Such developments have benefited from the ever increasing computational power. This is an important area and with many opportunities for expansion.

Although there is plenty of work on quality control and homogenisation of climate data from data surface air temperature, surface precipitation, evaporation, wind speed, etc... But very little work on streamflow data. However, there is a need for homogenising streamflow data because inland waters are a fundamental part of the hydrological cycle both at local and global levels. Inland waters are also carbon sinks at levels that must be considered on studies on climate change.

The issues with streamflow data arise from the dynamic nature of inland waters, with constant erosion and deposition, the effects of land use and land cover changes, or the more direct effects of water diversion and regulation.