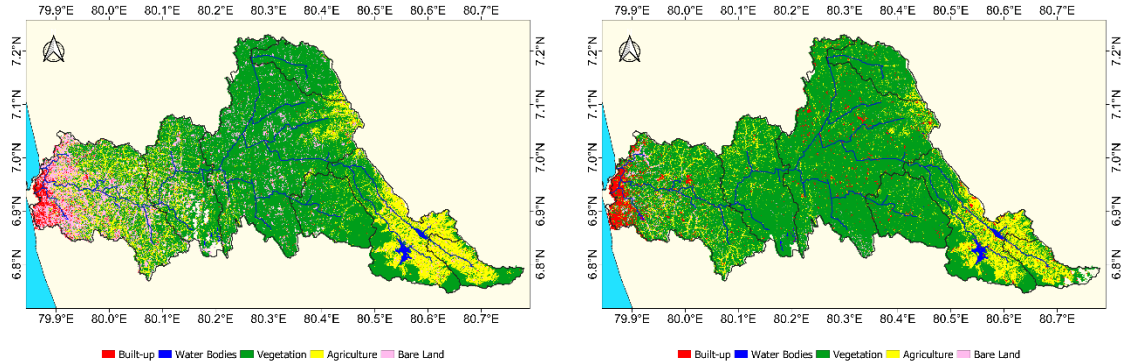# Assessment of Climate Change Impacts
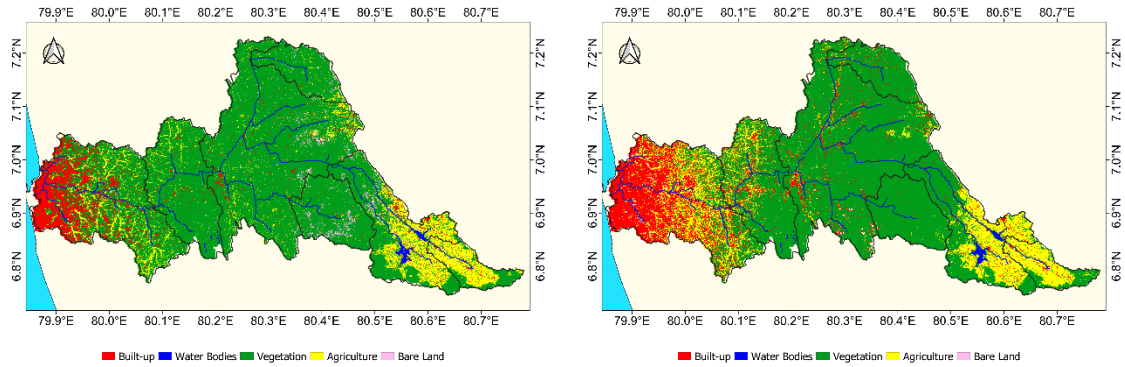
Key Researcher (s): Prof. Upaka Rathnayake, Mr. Pasindu Meddage, Eng. Susantha Wanniarachchi

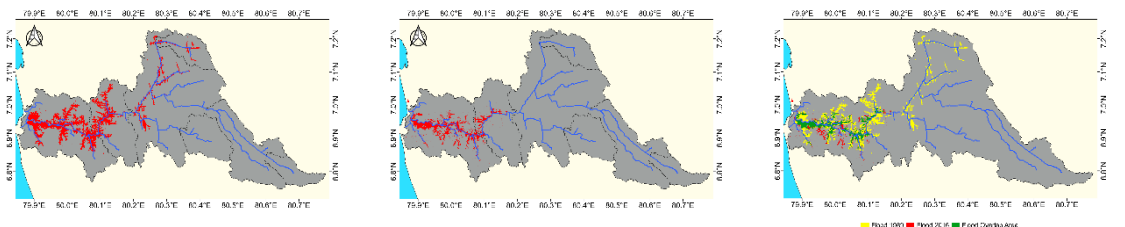**Land Use and Land Cover Variation 1988 – 2018**
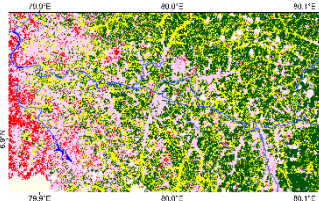

For 1988

For 1998

For 2008

For 2018

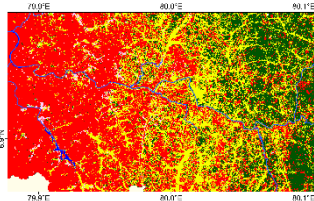**Flood Inundation and LULC Change**

For 1989 flood
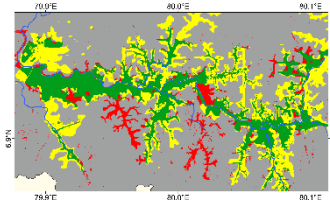

For 2016 flood

Flood comparison

1989 LULC

2016 LULC

Flood overlaps

- Research is carried out to assess the impacts of concurrent changes in climatic conditions and Land Use / Land Cover (LULC) on flood events in the major river basins, utilizing statistical analysis on observed climatic and hydrological and LULC data.

- Climate change is a key parameter that involves various research fields. The effect of climate change is assumed to be governing the formation of typhoons, and their wind field. Therefore, predicting future climate and their effect on typhoons is critical to evaluate the future wind speeds and wind direction, and intensity that affects civil engineering infrastructure. Machine learning provides the phase to investigate the effect of climate dynamics on typhoons therefore we can assess their future impact by avoiding probabilistic approaches.