

Simulation

E-OBS

mHM model

Evaluation

Station-based
(GRDC stations)

Event-based
(Flood impact dataset – HANZE)

Identification and Characterization

Runoff extreme identification
(99th percentile)

Flood event detection
(Spatiotemporal connectivity)

Flood event characterization
(Spatial extent)

Trend analysis

Attribution analysis

Change of runoff **magnitude**



Change of runoff **spatial dependence**



Change of
Hydrometeorological drivers
(rainfall, snowmelt, soil moisture)