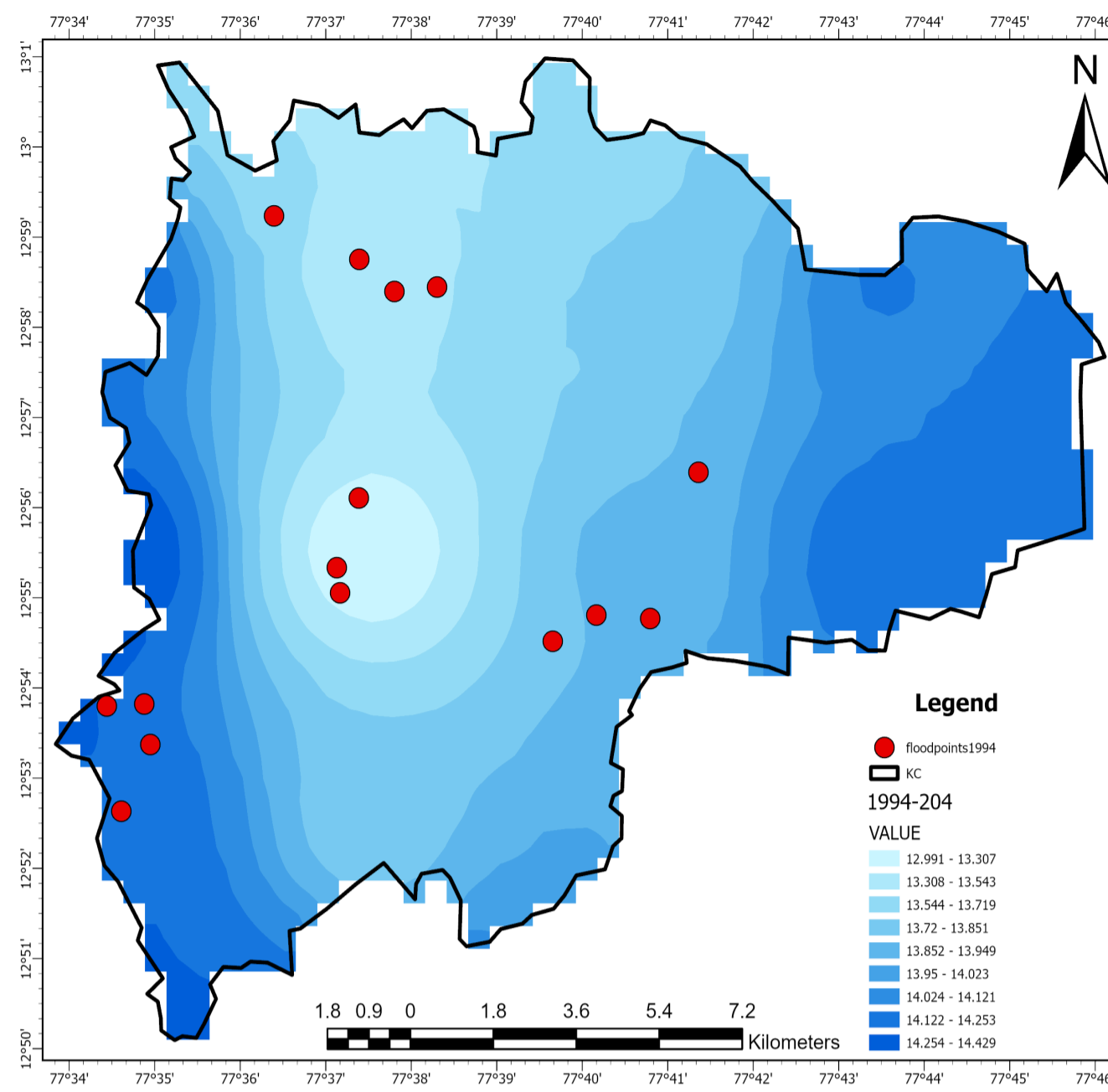
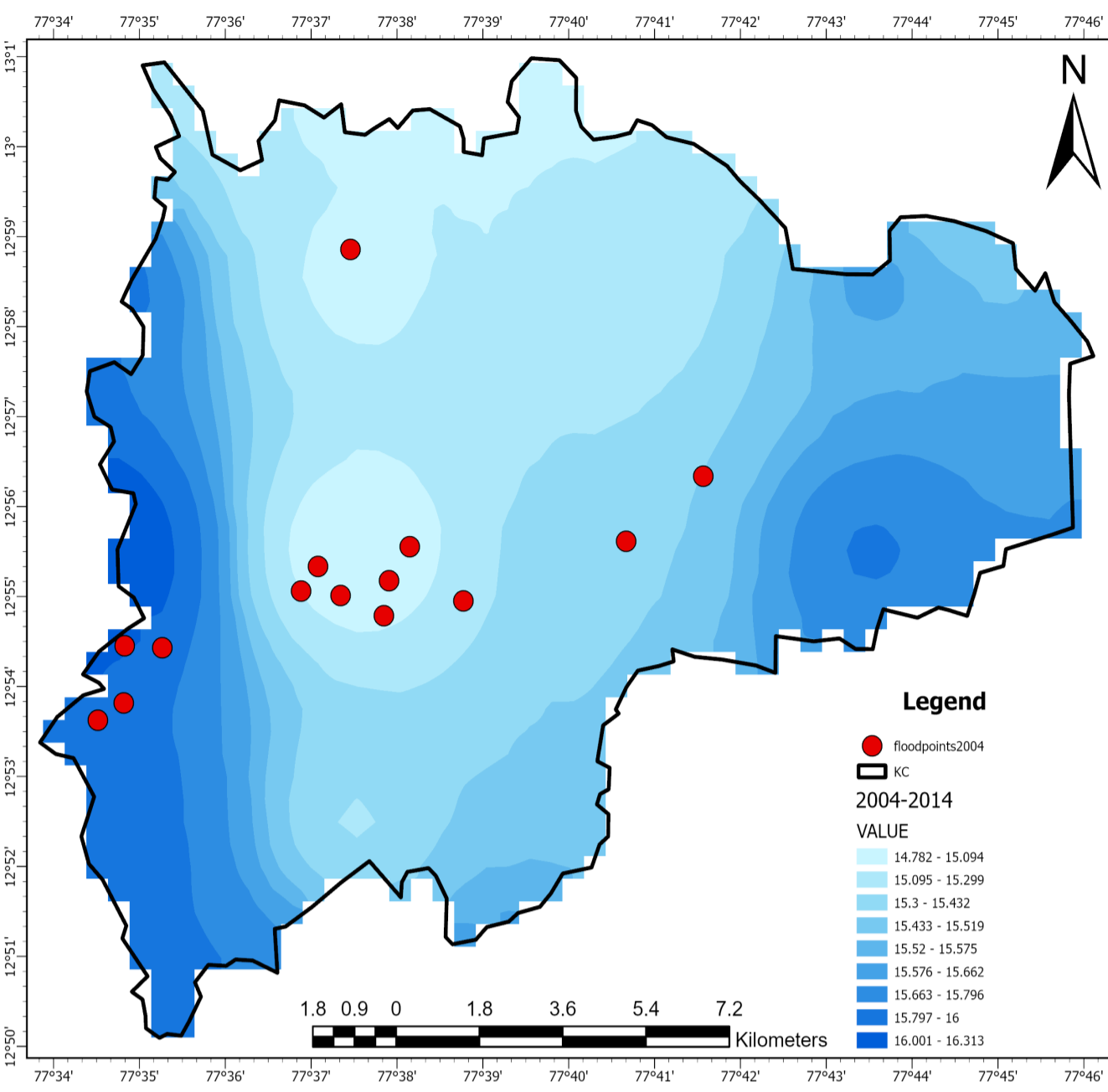


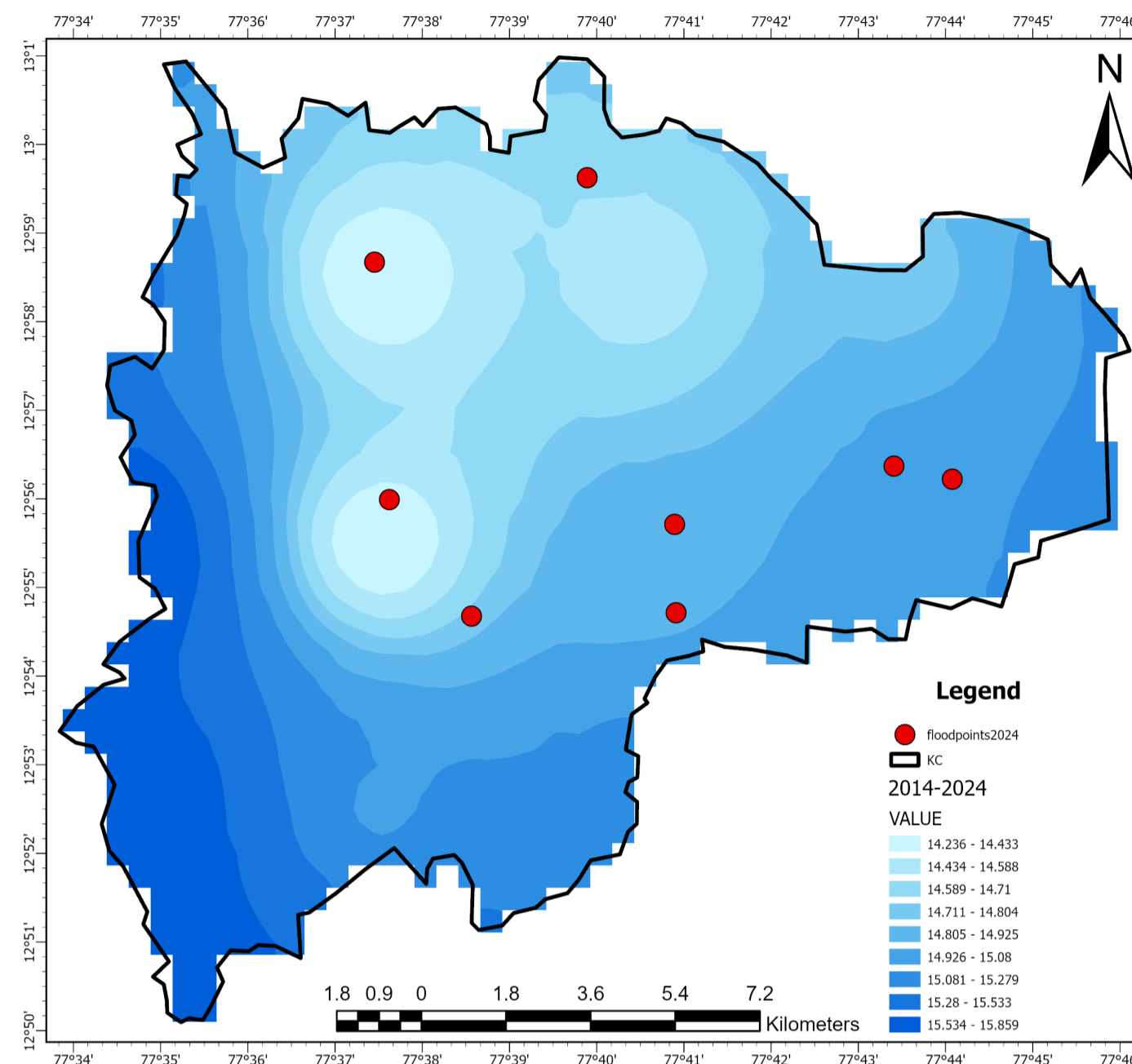
## DECADAL RAINFALL WITH FLOOD POINTS



1994 - 2004



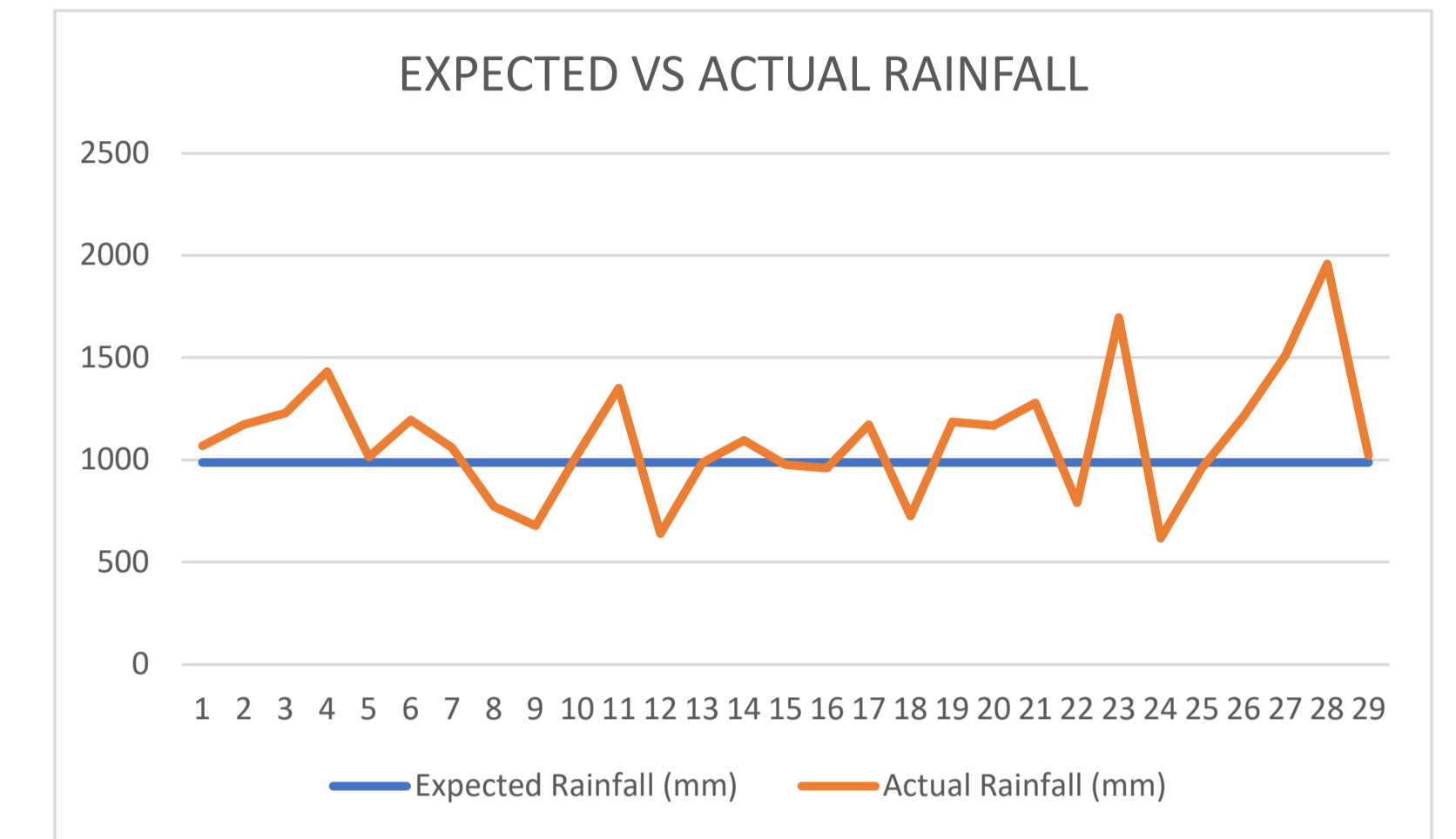
2004 - 2014



2014 - 2024

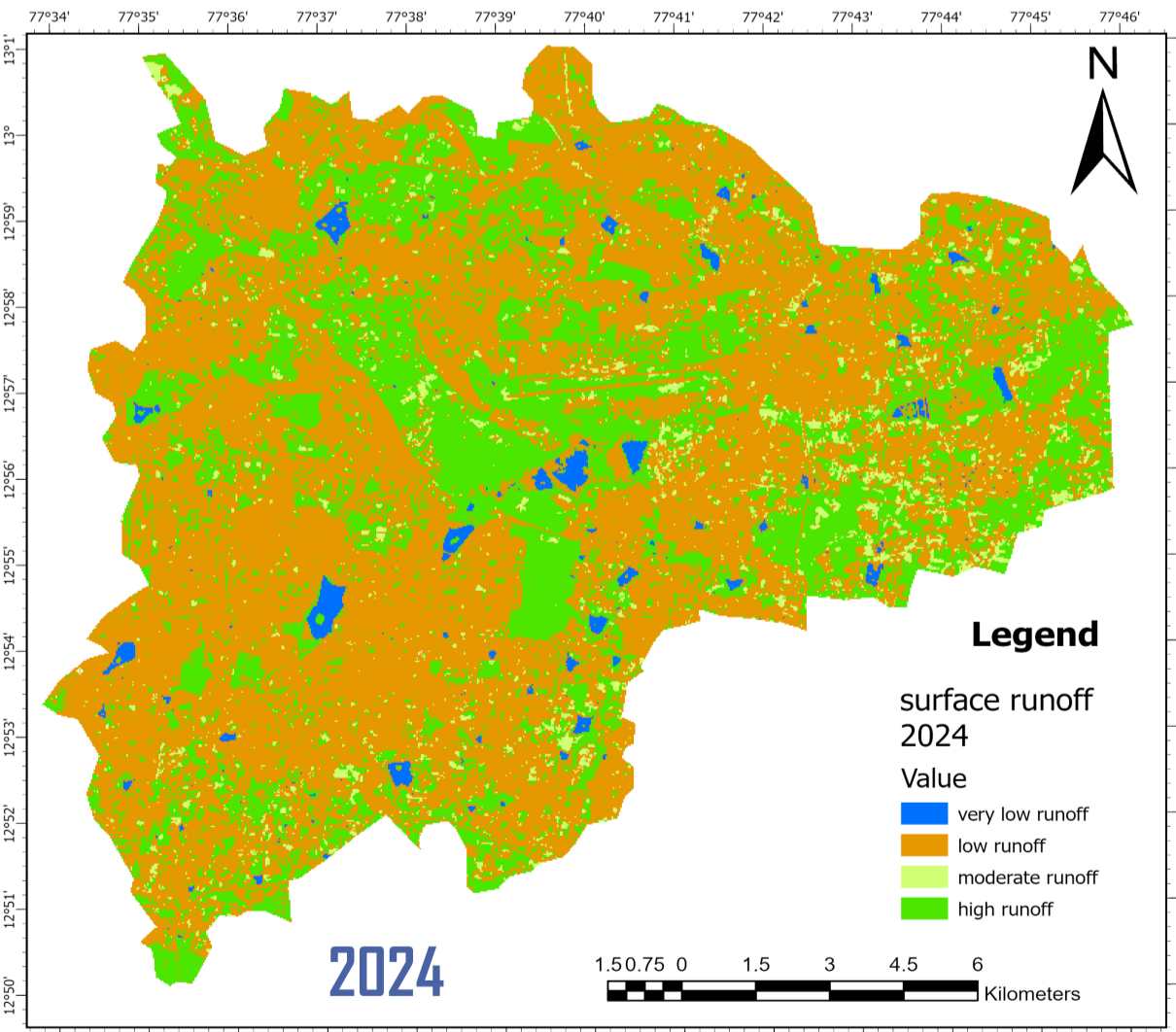
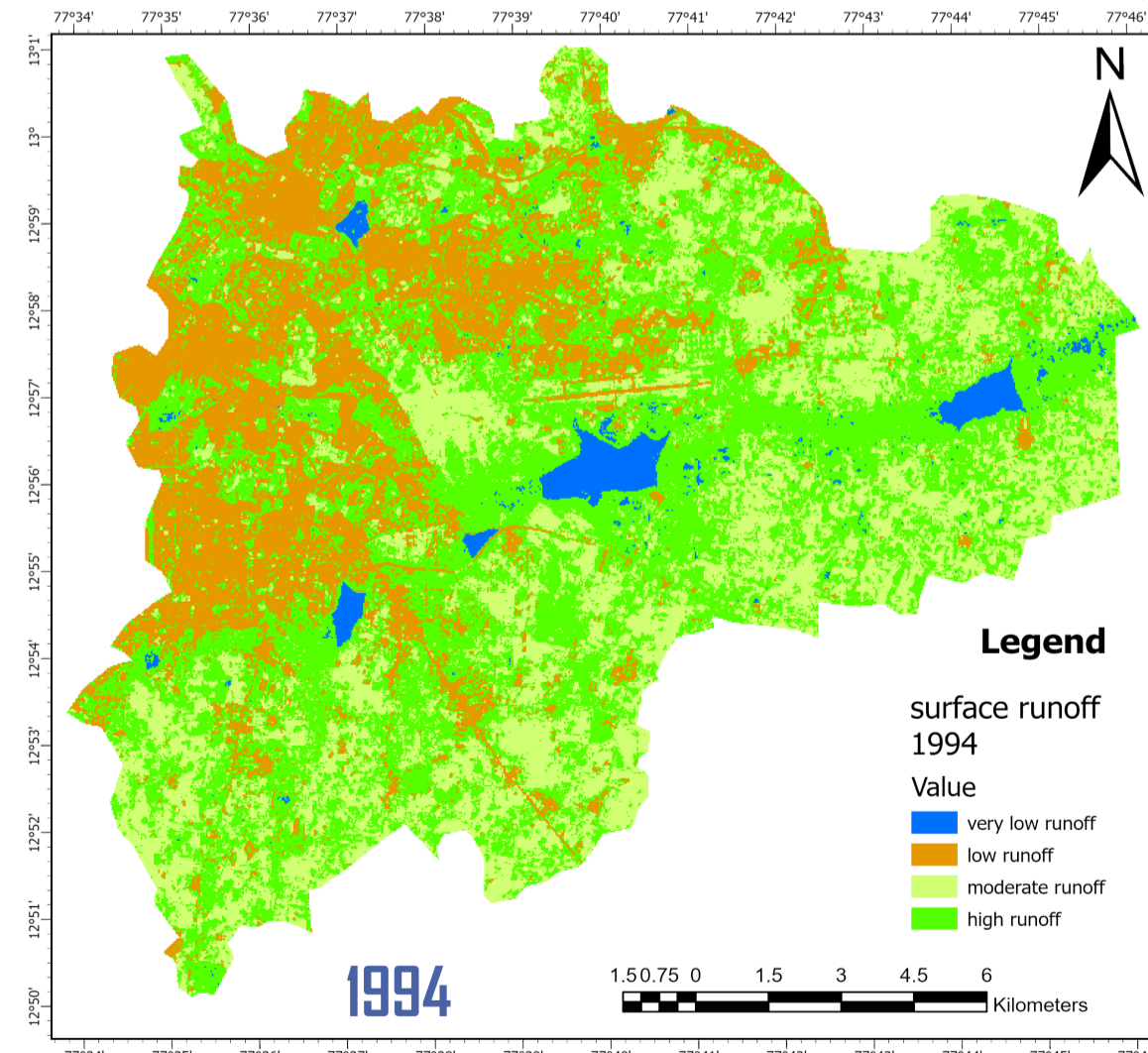
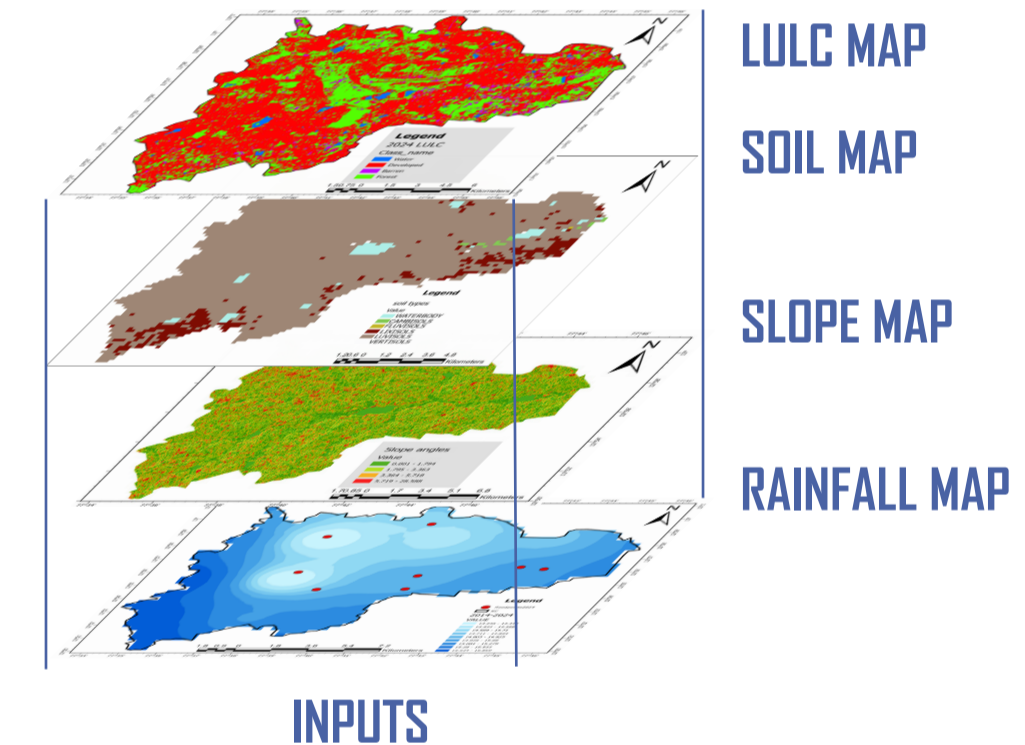
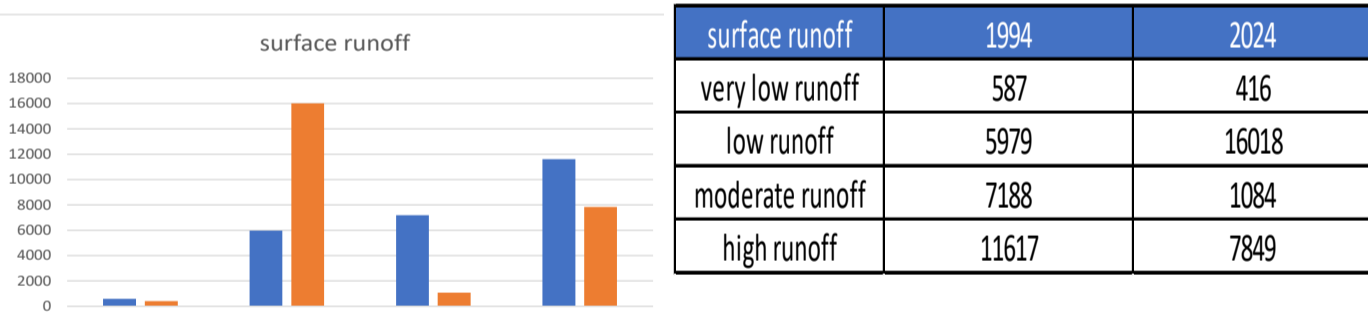
## EXPECTED VS ACTUAL RAINFALL

The normal vs expected rainfall analysis helps us analyse about the rainfall intensity in the study area. The expected rainfall is constant as that is the benchmark with which the rainfall intensity is measured. The expected rainfall is released by IMD by analysing the historical rainfall pattern and the climatic pattern of the study area. By analysing the data we can see that the rainfall since last 30 years that the actual rainfall exceeds the expected rainfall. This infers that there is excess rainfall in K-C valley most of the years.

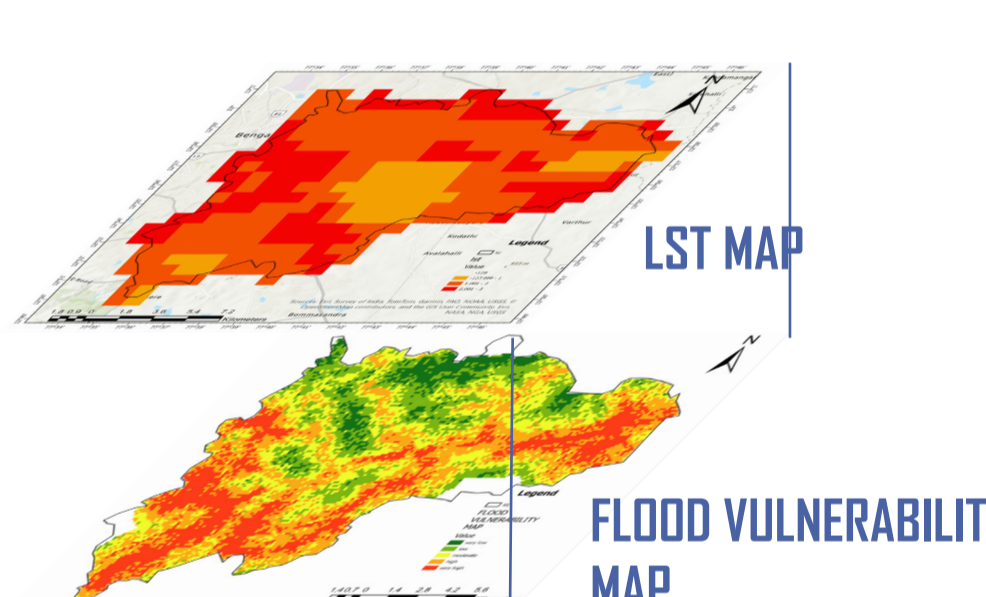


## RAINFALL-SURFACE RUNOFF MODEL

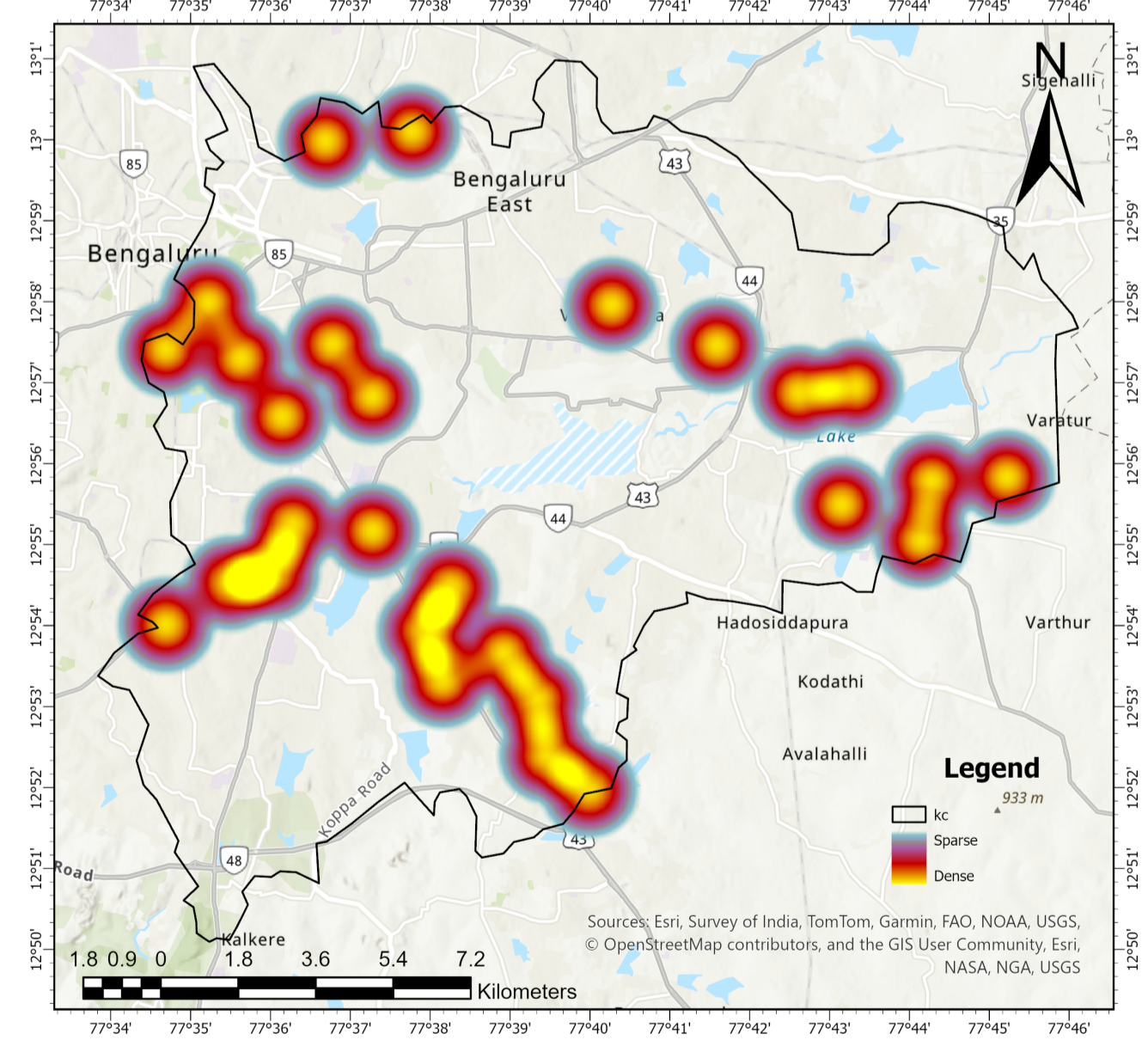
Rainfall surface runoff model is a geospatial analysis model made to understand the movement of the surface water which appears during and after rainfall. Basically in urban areas if the runoff is higher its better. If the rainwater retains in the same place which leads to water logging in urban areas especially in built up areas. The process involves multi criteria analysis using different inputs usually lucl, soil, slope and rainfall. After this analysis we can infer that the surface runoff was higher drastically higher in 1994 when compared with the current condition. A lower surface leads to water staying in the same place leading to water logging in the same place.



## UHI VS FLOOD RISK ZONE (DUAL RISK ZONE)



Dual risk zone analysis is a multi overlay analysis, it involves analysing both urban heat island effect and urban flood effect together to understand if there are any common zones where both the issues are occurring. This analysis is done by inputting land surface temperature map and flood vulnerability map. After the analysis we can infer that there are various pockets with in the study where both the affects are occurring due to loss of blue green infra.



Year	Expected Rainfall (mm)	Actual Rainfall (mm)
1995	986.9	1068.4
1996	986.9	1172.9
1997	986.9	1229.8
1998	986.9	1431.8
1999	986.9	1014
2000	986.9	1193.9
2001	986.9	1058.5
2002	986.9	772
2003	986.9	678.7
2004	986.9	1026.1
2005	986.9	1350.8
2006	986.9	639.1
2007	986.9	984.6
2008	986.9	1096.4
2009	986.9	975.6
2010	986.9	960.1
2011	986.9	1172
2012	986.9	725.2
2013	986.9	1185.4
2014	986.9	1167
2015	986.9	1278.6
2016	986.9	791.4
2017	986.9	1696
2018	986.9	617.7
2019	986.9	960.1
2020	986.9	1212.8
2021	986.9	1511.1
2022	986.9	1957.7
2023	986.9	1020.2
2024	986.9	Data not yet finalized

# MITIGATING URBAN FLOODS : A PLANNING STUDY ON CONNECTING BLUE-GREEN NETWORK IN KORAMANGALLA - CHALLAGHATTA VALLEY IN BENGALURU CITY

SCHOOL OF PLANNING AND ARCHITECTURE

NAME: P.A.CHARAN	REV / EXAM NO: U01ZZ21S0029
CLASS: 8 th SEMESTER, B.PLANNING	DRAWING NO: 08