

Fundamentals of Spatial Analysis

THRISSUR CITY

**Assessing Change in Land Cover using Satellite Images
(LISS 3, OLI, Sentinel-2)**

Nandini Bhatnagar

H2024CG012

M. A. Cities and Governance, Sem II

CALCULATING AREA FOR DIFFERENT LAND COVER TYPES IN QGIS

1

Importing
Satellite
Image as
Raster Layer

2

Clipping
Image and
Setting it to
Standard
FCC

3

Using Raster
Calculator to
get NDVI,
NDBI, NDWI
layers

4

Changing
Threshold of
Intervals in
Symbology

5

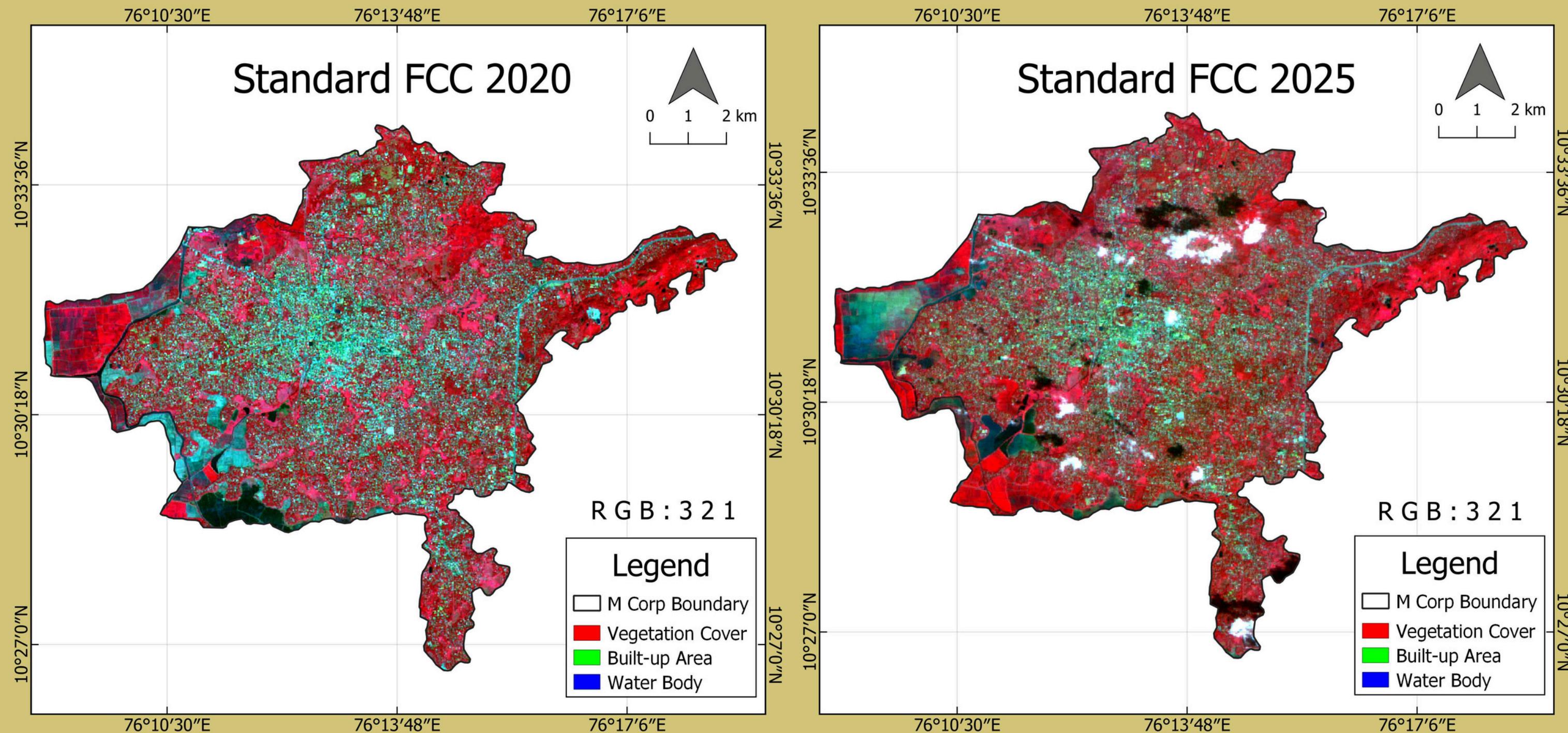
Reclassifying
Thresholds
as Binary

6

Obtaining
Unique
Values
Report

Land Cover Change in Thrissur City (2020 vs. 2025)

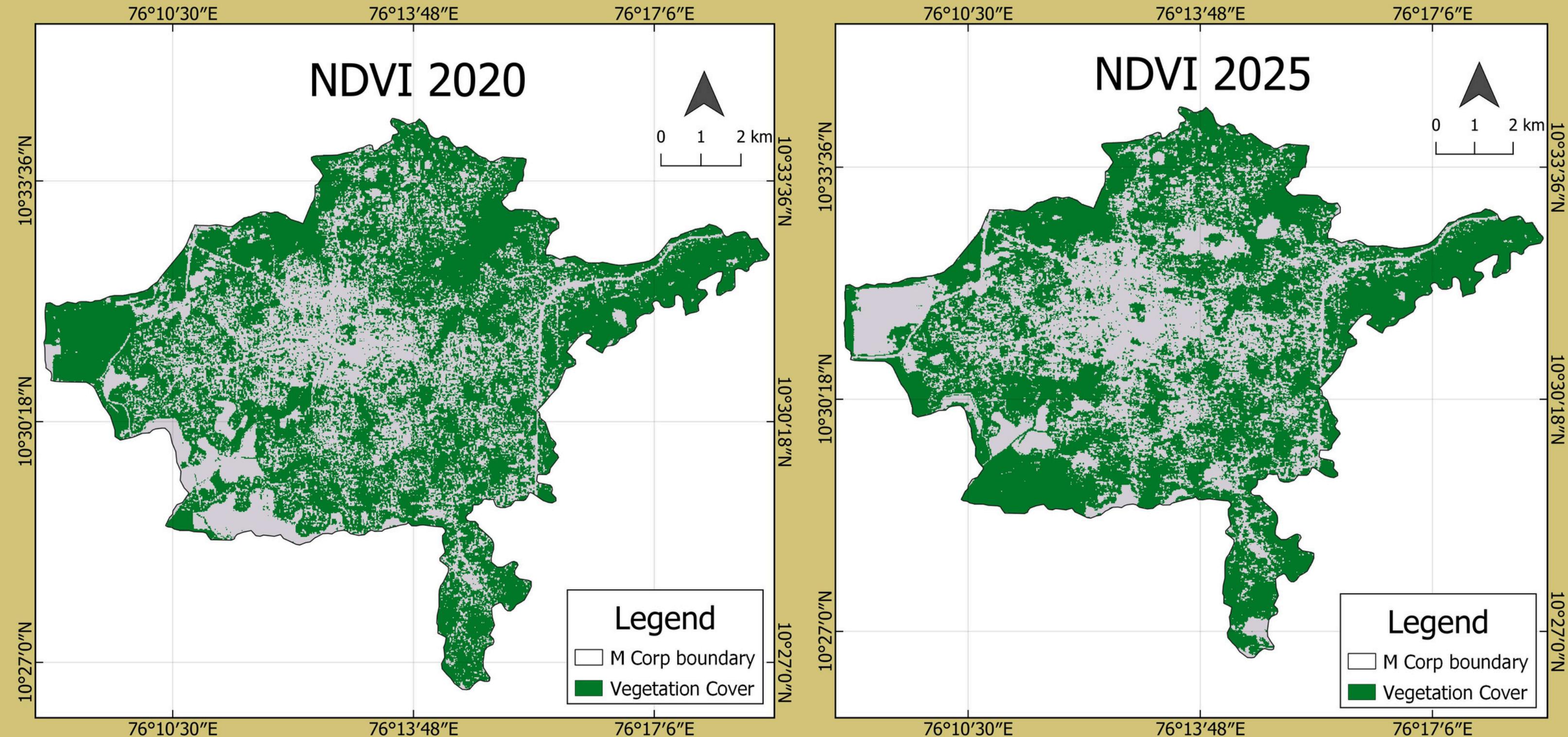
Resourcesat 2 - LISS 3



Source:
Resourcesat 2-LISS 3, ISRO Bhoonidhi

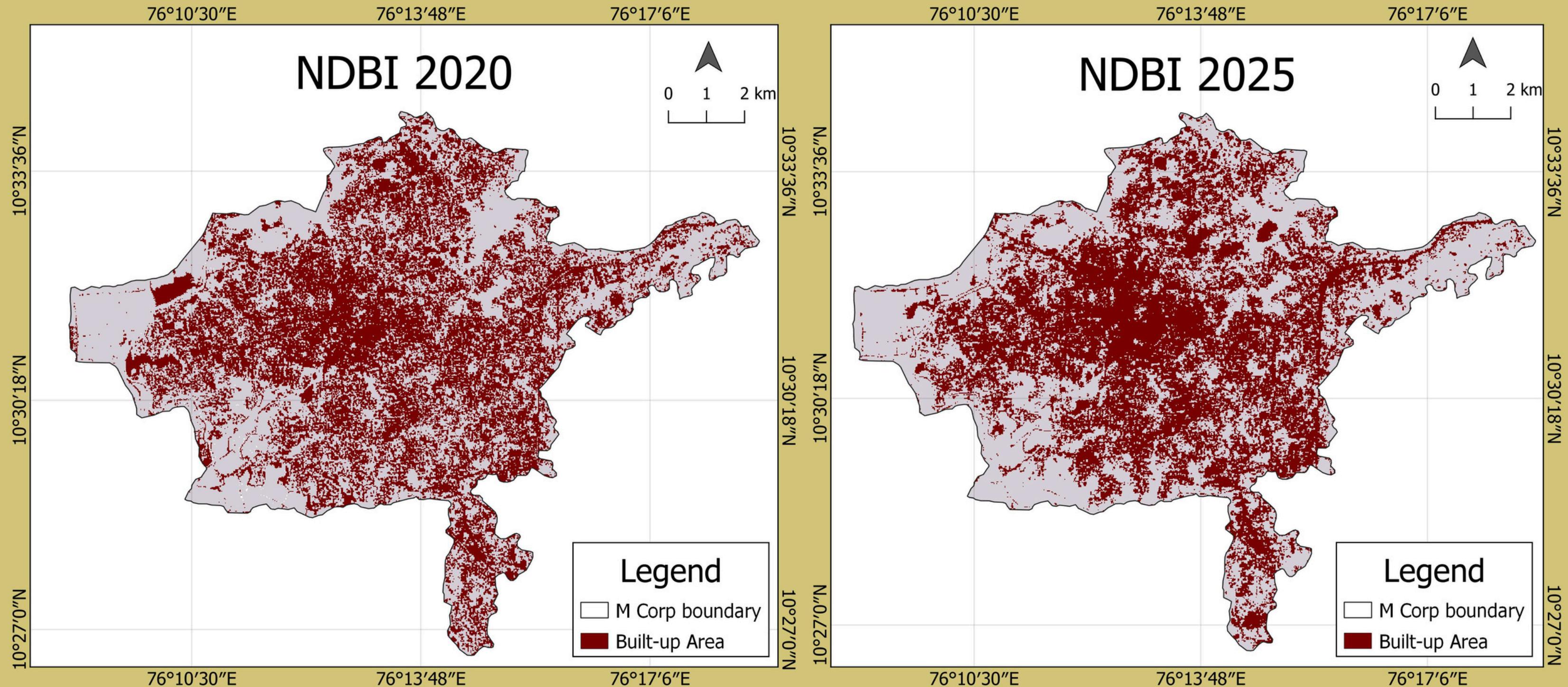
Change in Vegetation Cover in Thrissur City (2020 vs. 2025)

IRS R2-LISS 3



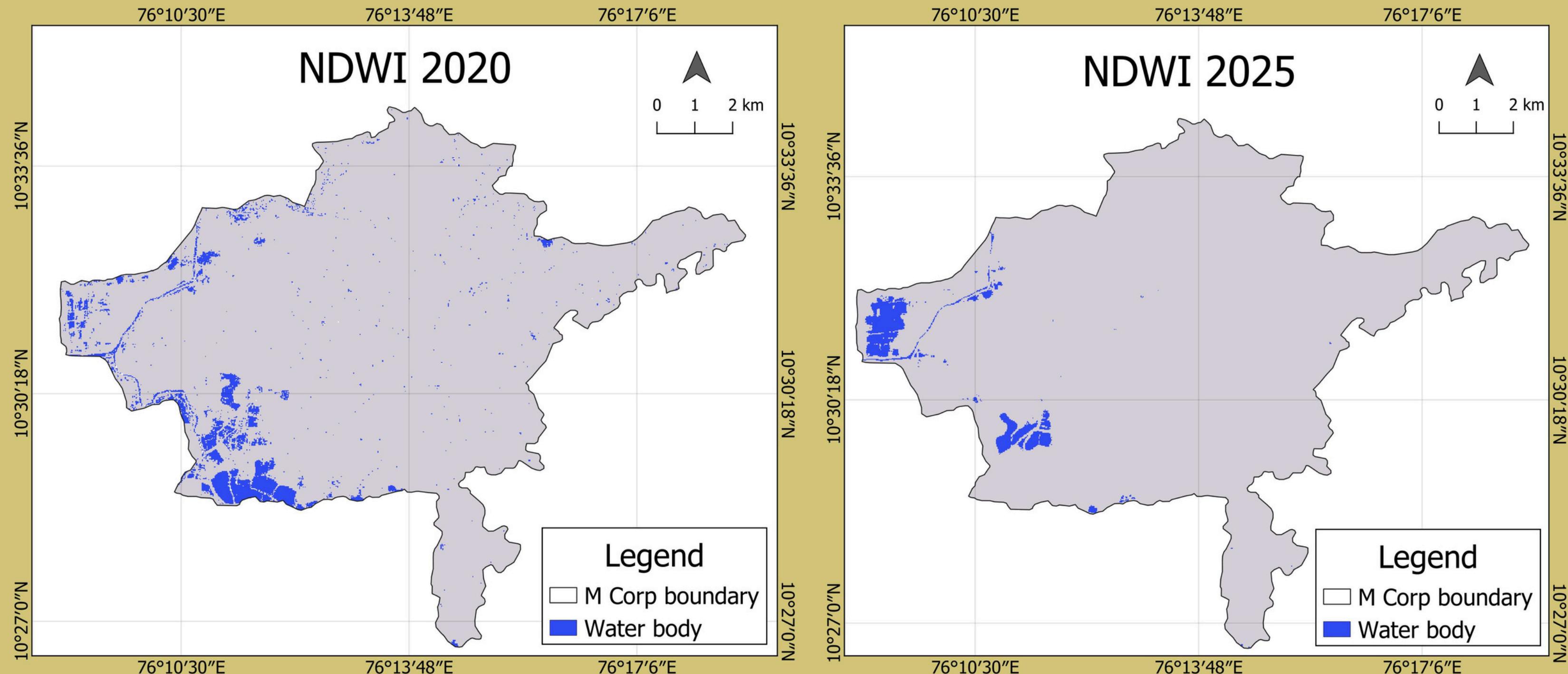
Change in Built-up Area in Thrissur City (2020 vs. 2025)

IRS R2-LISS 3



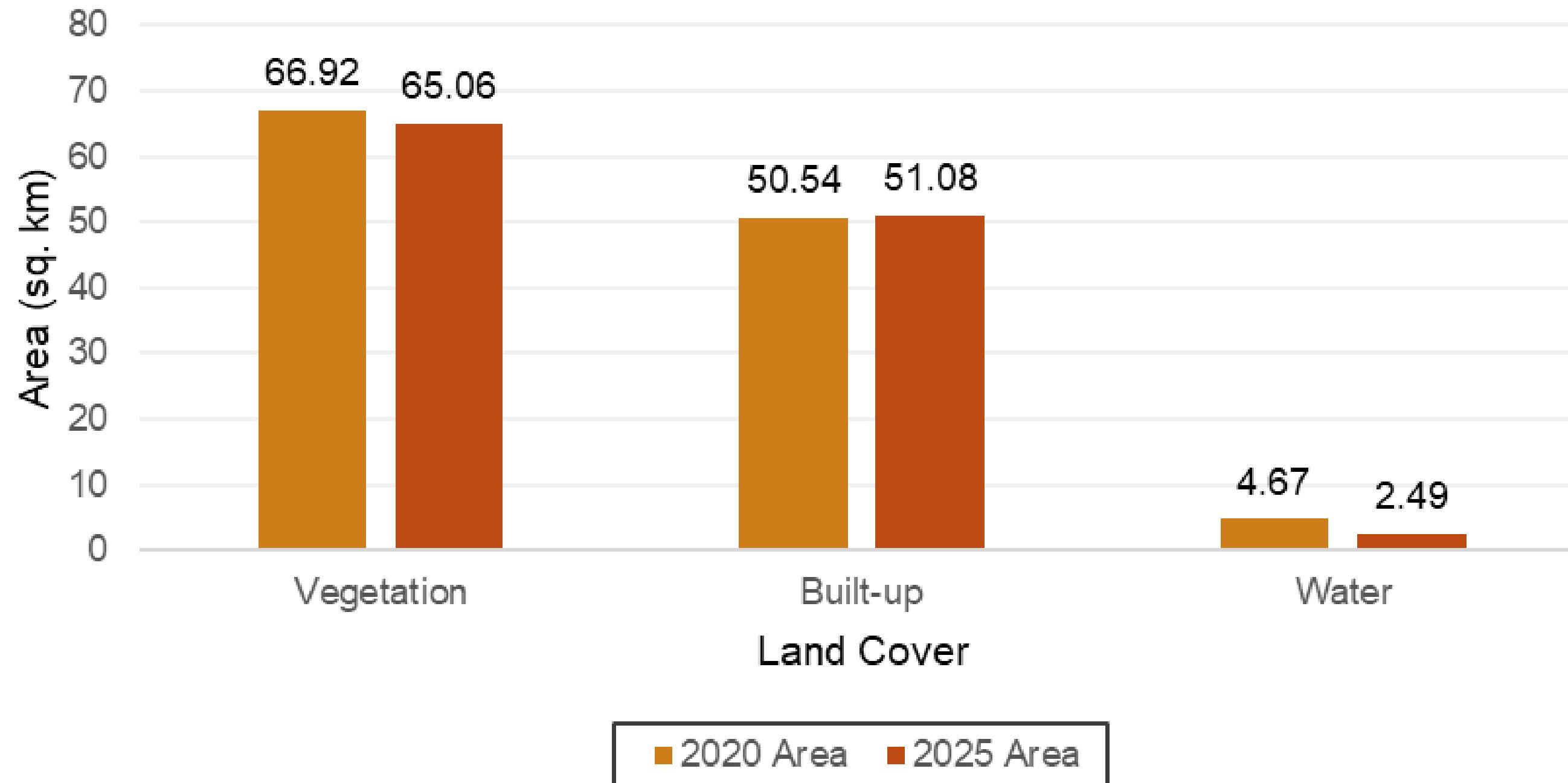
Change in Water Bodies in Thrissur City (2020 vs. 2025)

IRS R2-LISS 3

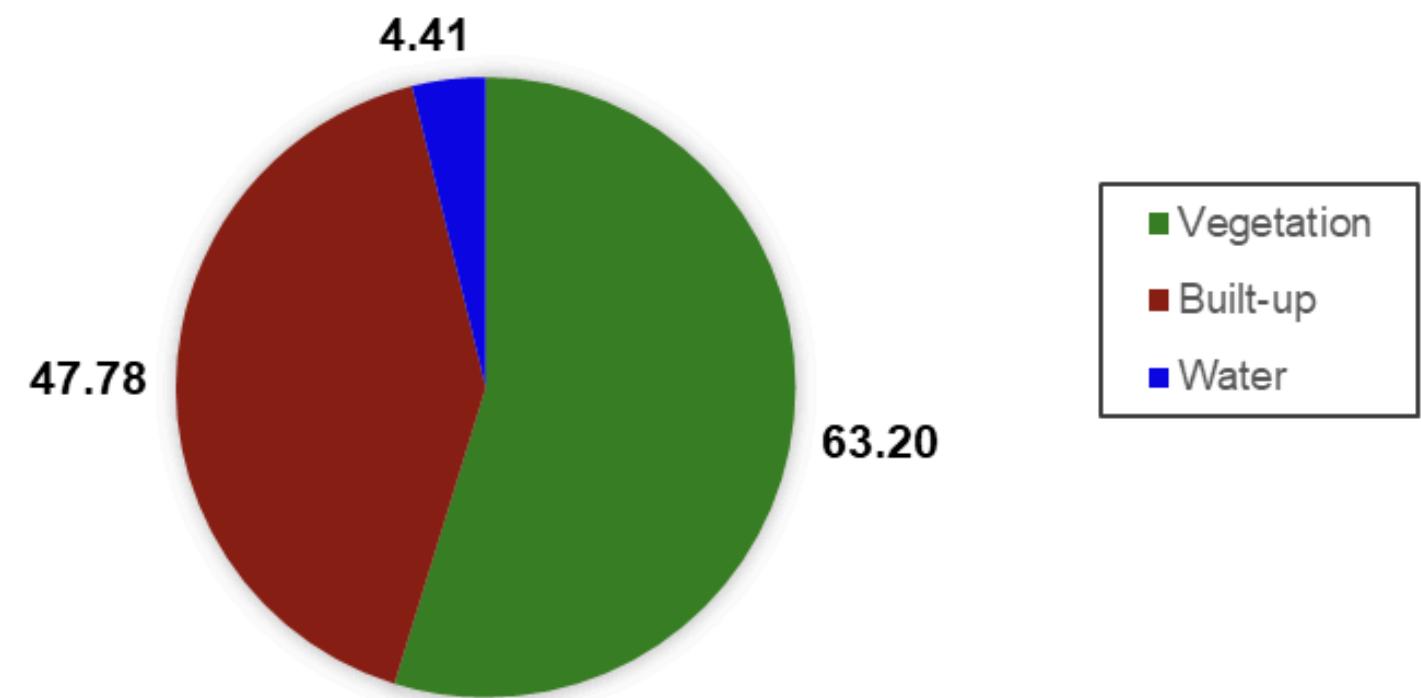


Source:
Resourcesat 2-LISS 3, ISRO Bhoonidhi

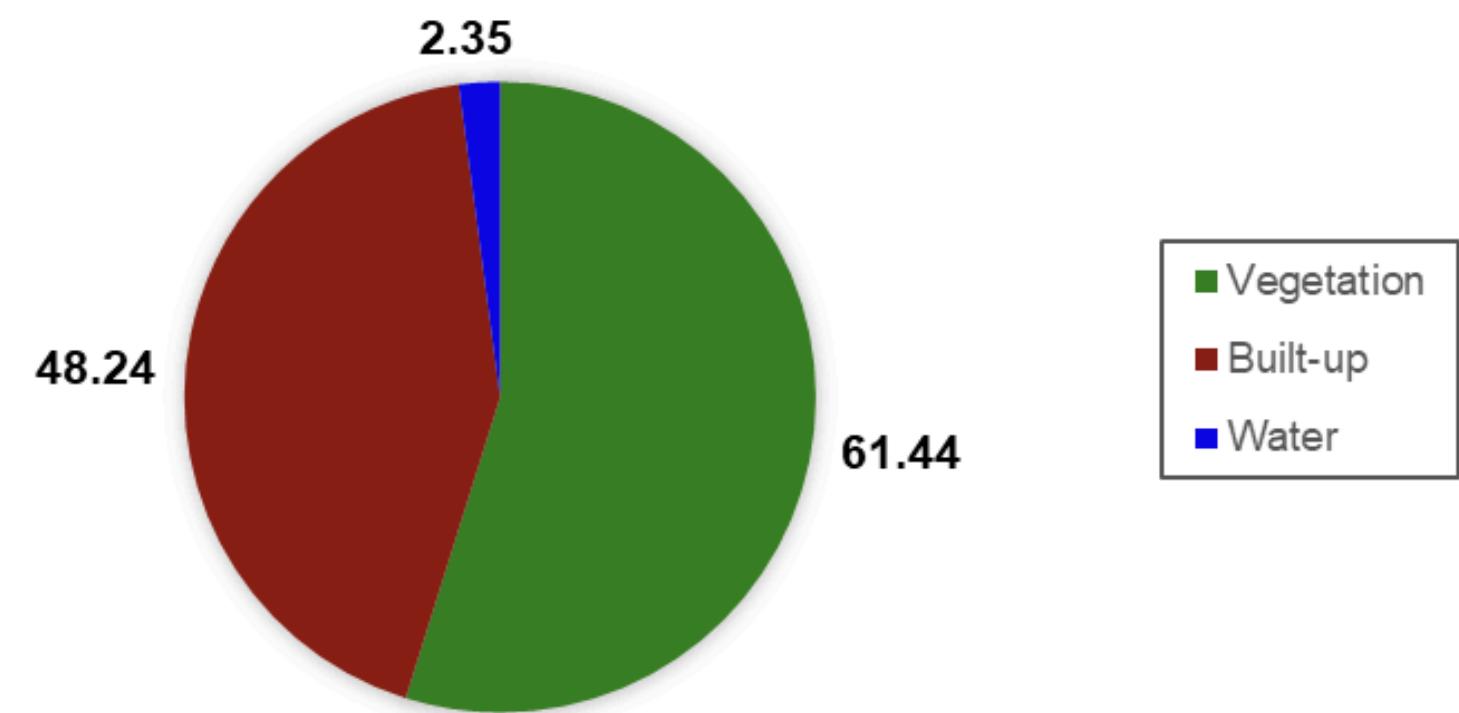
Change in Land Cover in Thrissur (2020 vs. 2025) IRS R2-LISS 3



**% AREA OF LAND COVER IN THRISSUR
(2020)**
IRS R2-LISS 3

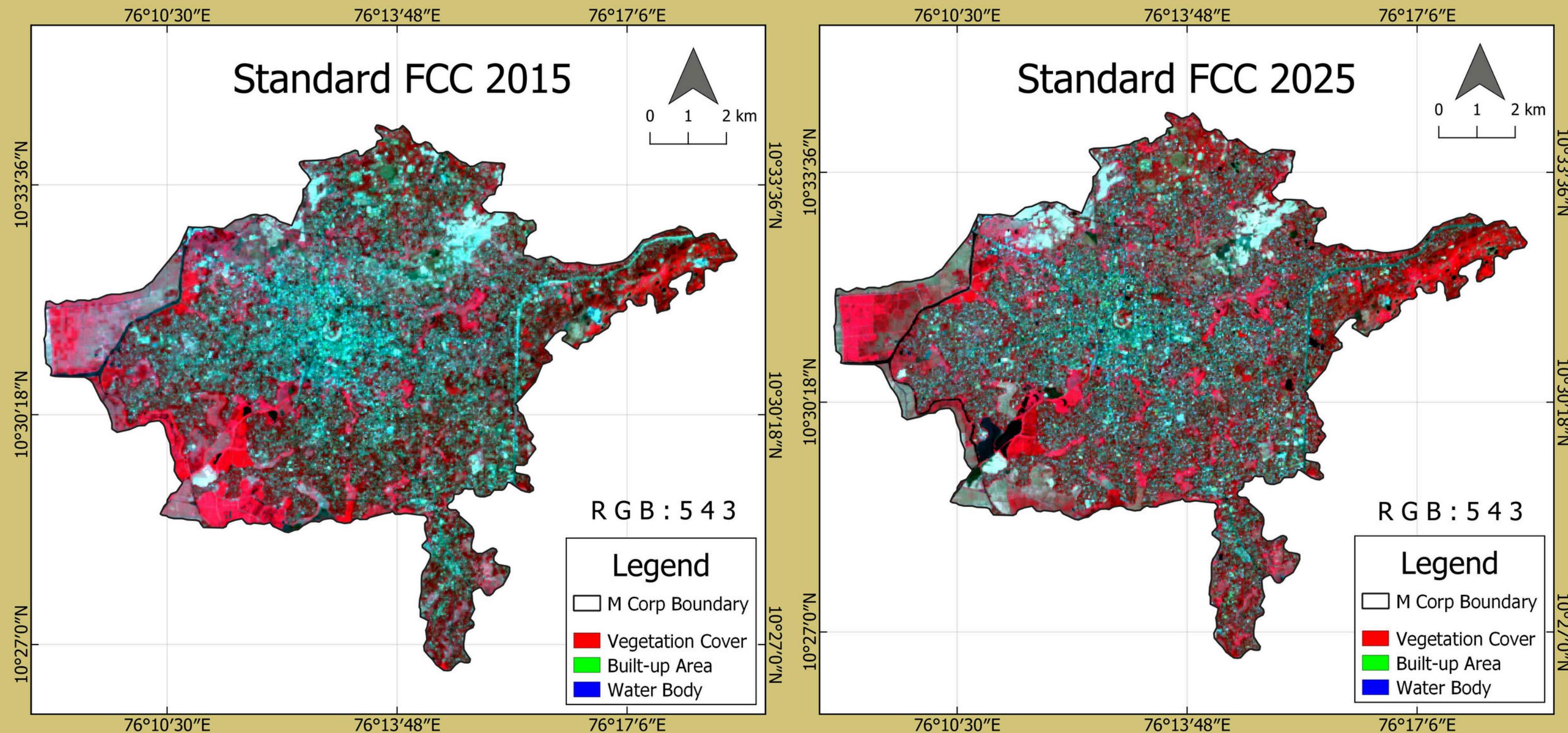


**% AREA OF LAND COVER IN THRISSUR
(2025)**
IRS R2-LISS 3



Land Cover Change in Thrissur City (2015 vs. 2025)

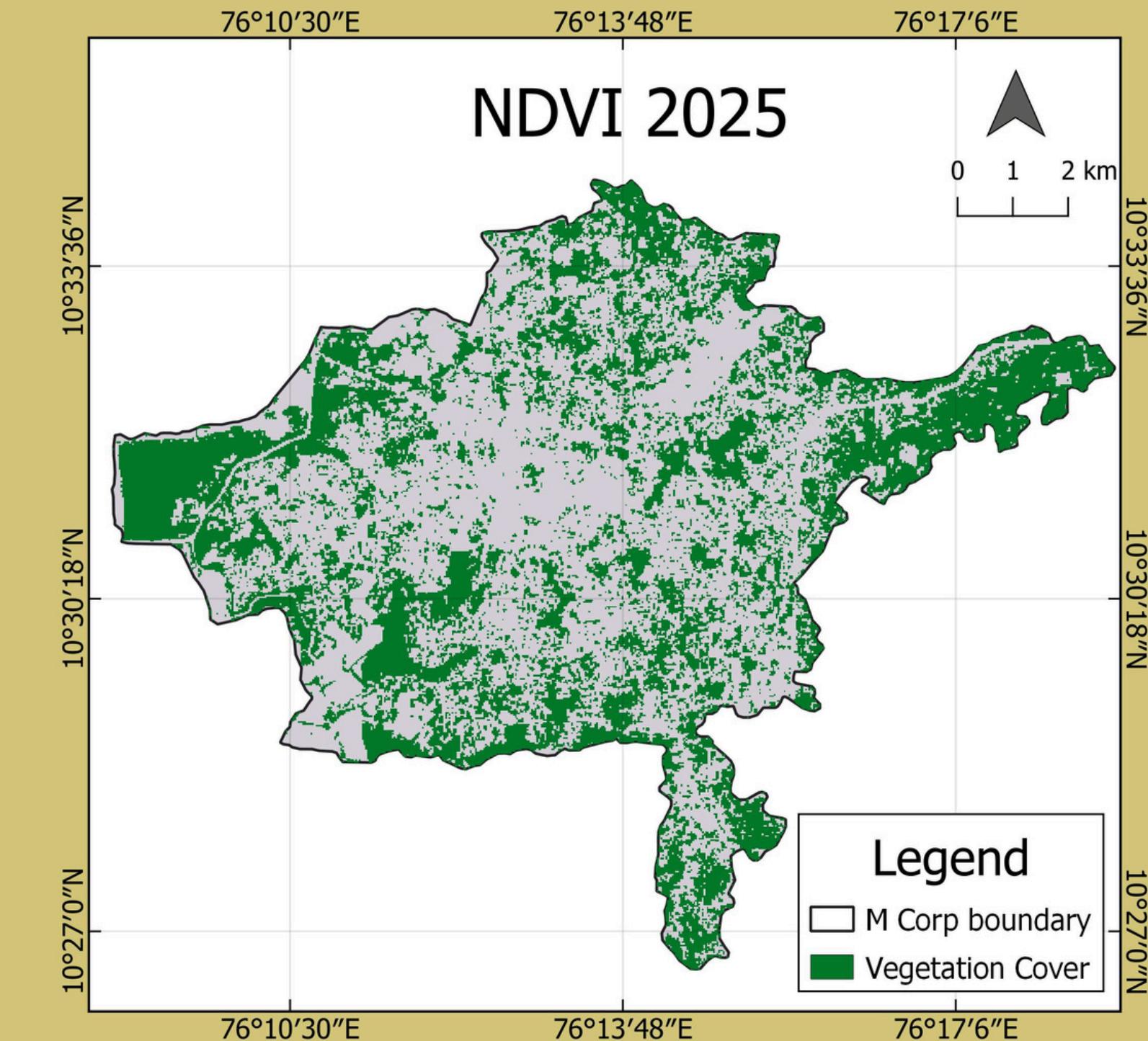
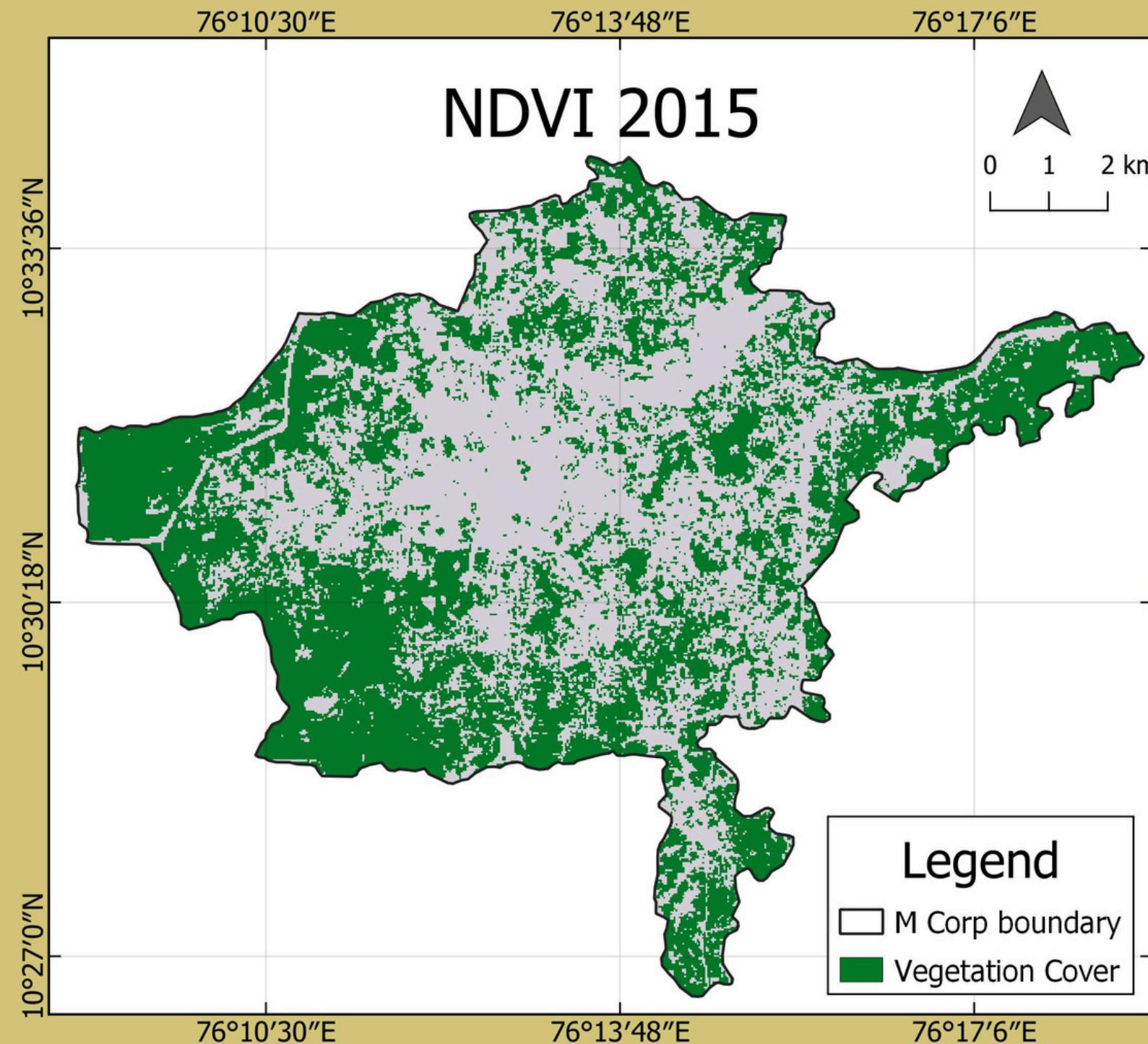
Landsat 8 - OLI



Source:
Landsat 8-OLI, USGS Earth Explorer

Change in Vegetation Cover in Thrissur City (2015 and 2025)

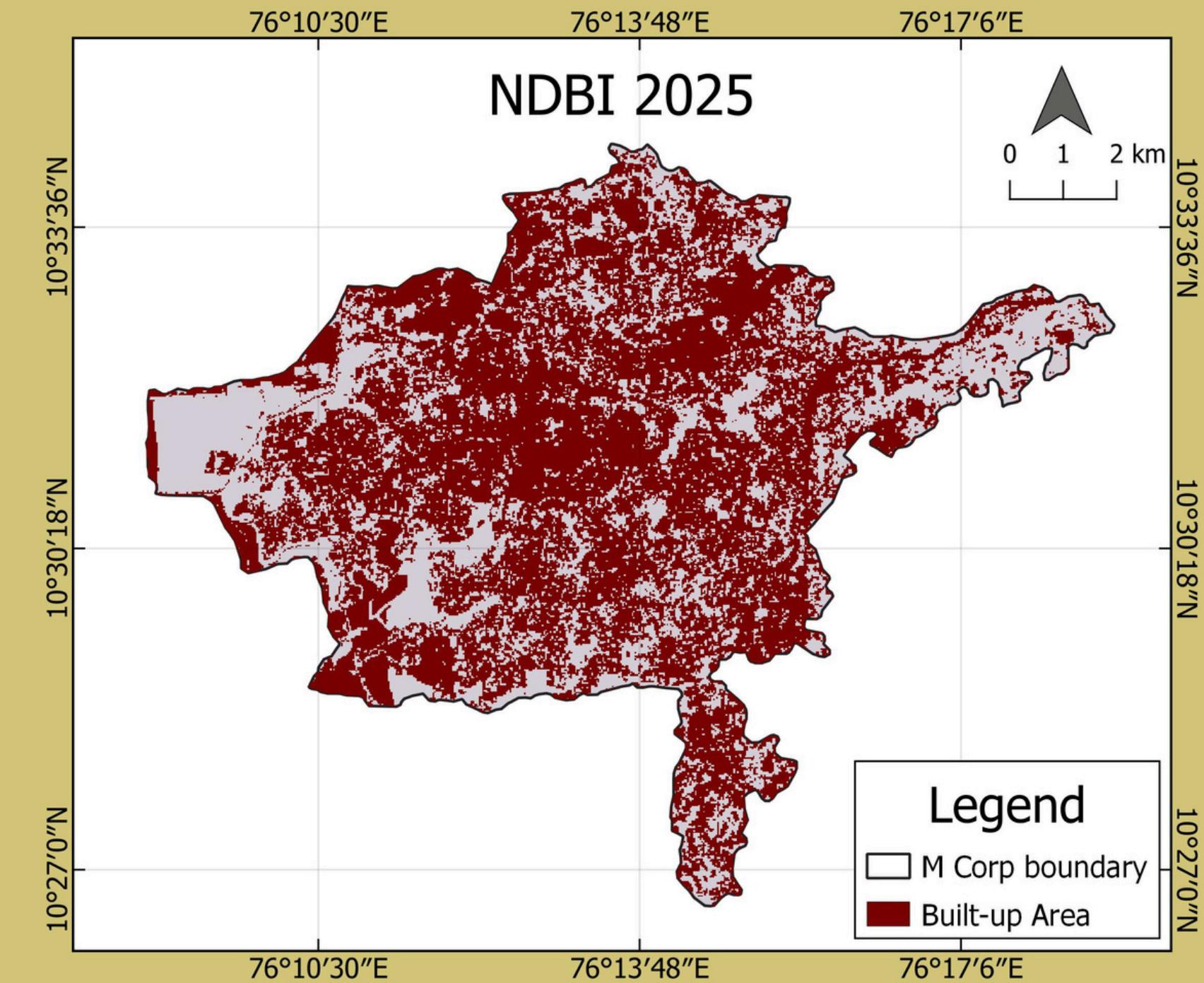
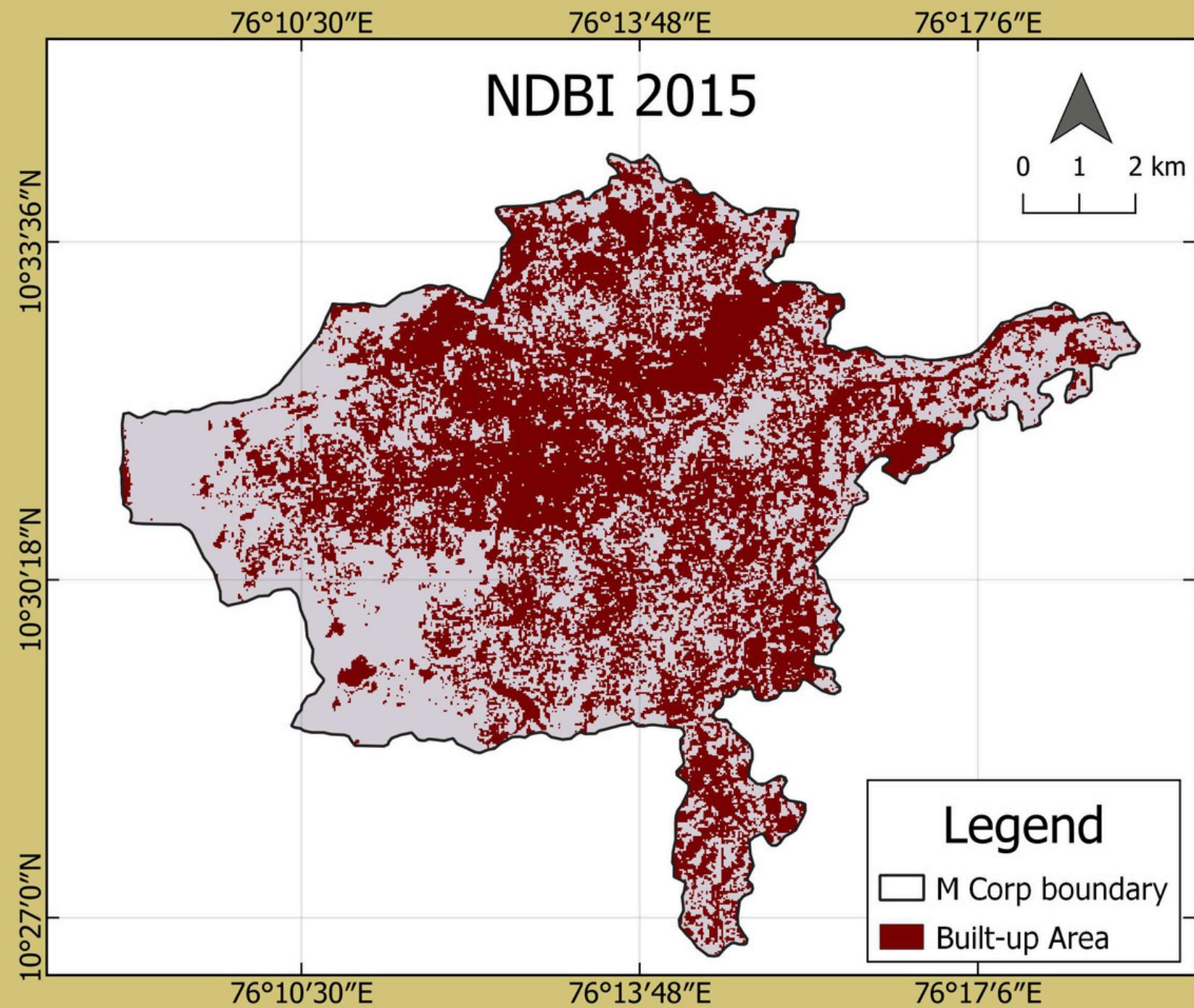
Landsat 8 OLI



Source:
Landsat 8-OLI, USGS Earth Explorer

Change in Built-up Area in Thrissur City (2015 vs. 2025)

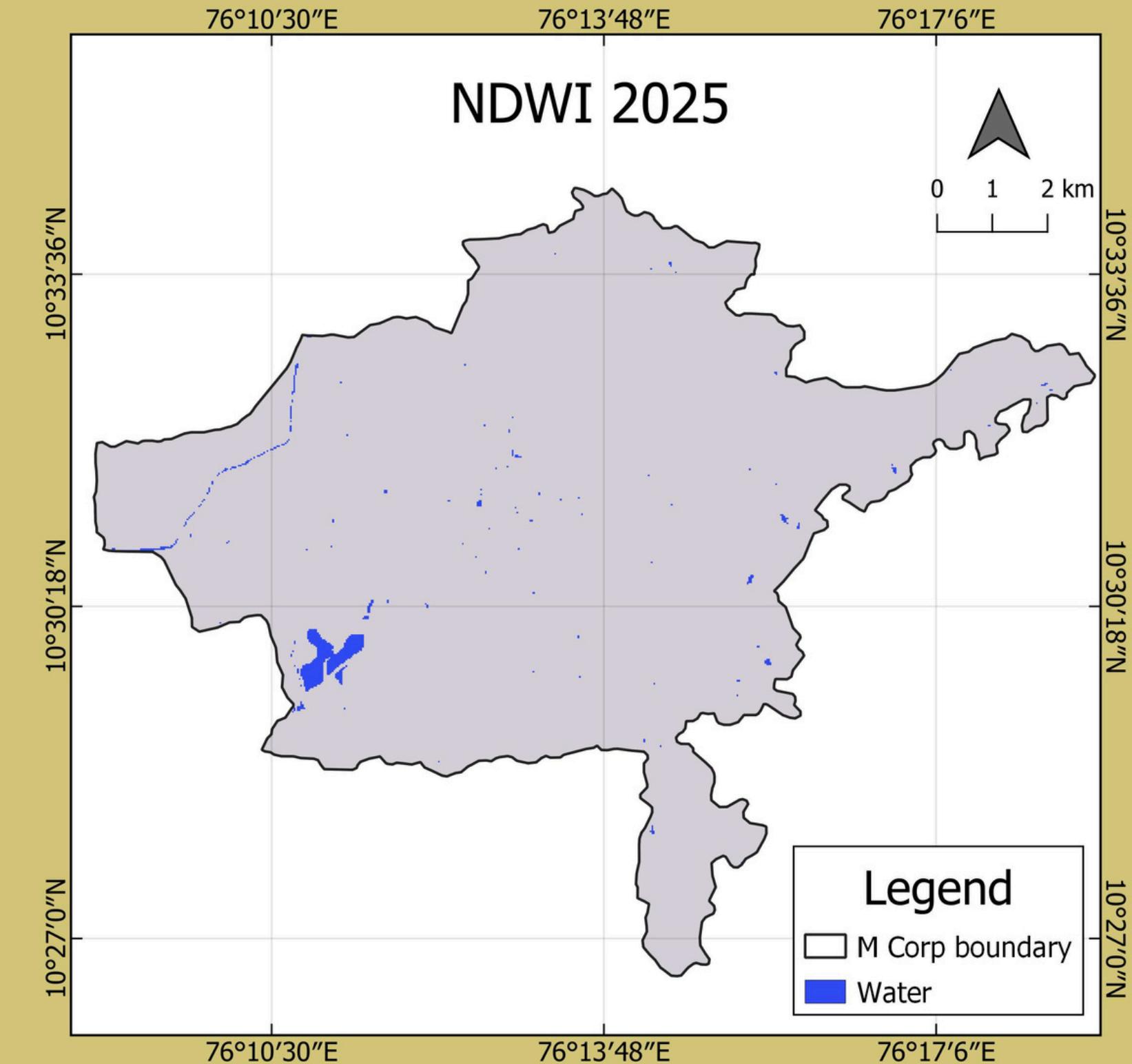
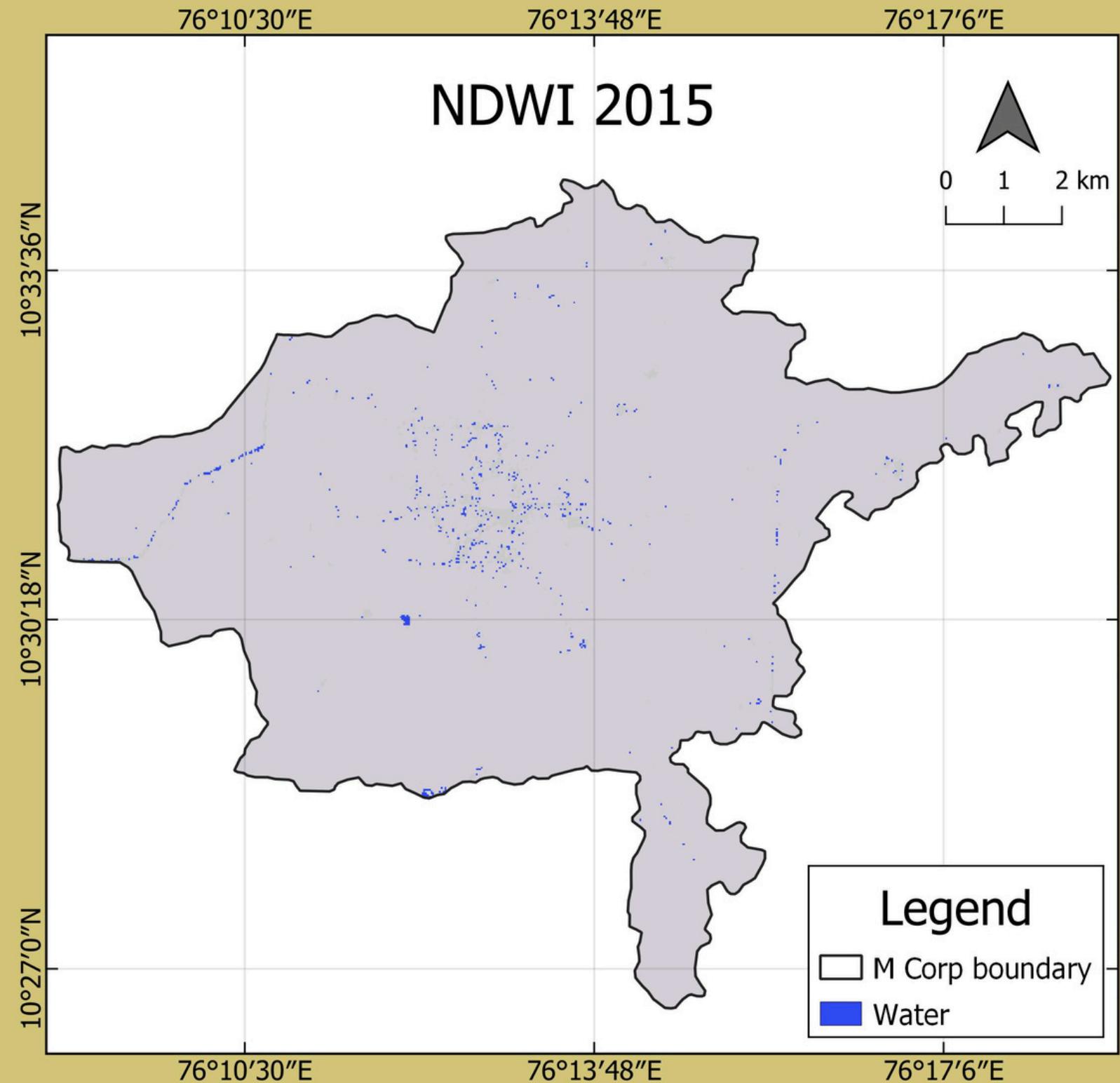
Landsat 8 OLI



Source:
Landsat 8-OLI, USGS Earth Explorer

Change in Water Bodies in Thrissur City (2015 vs. 2025)

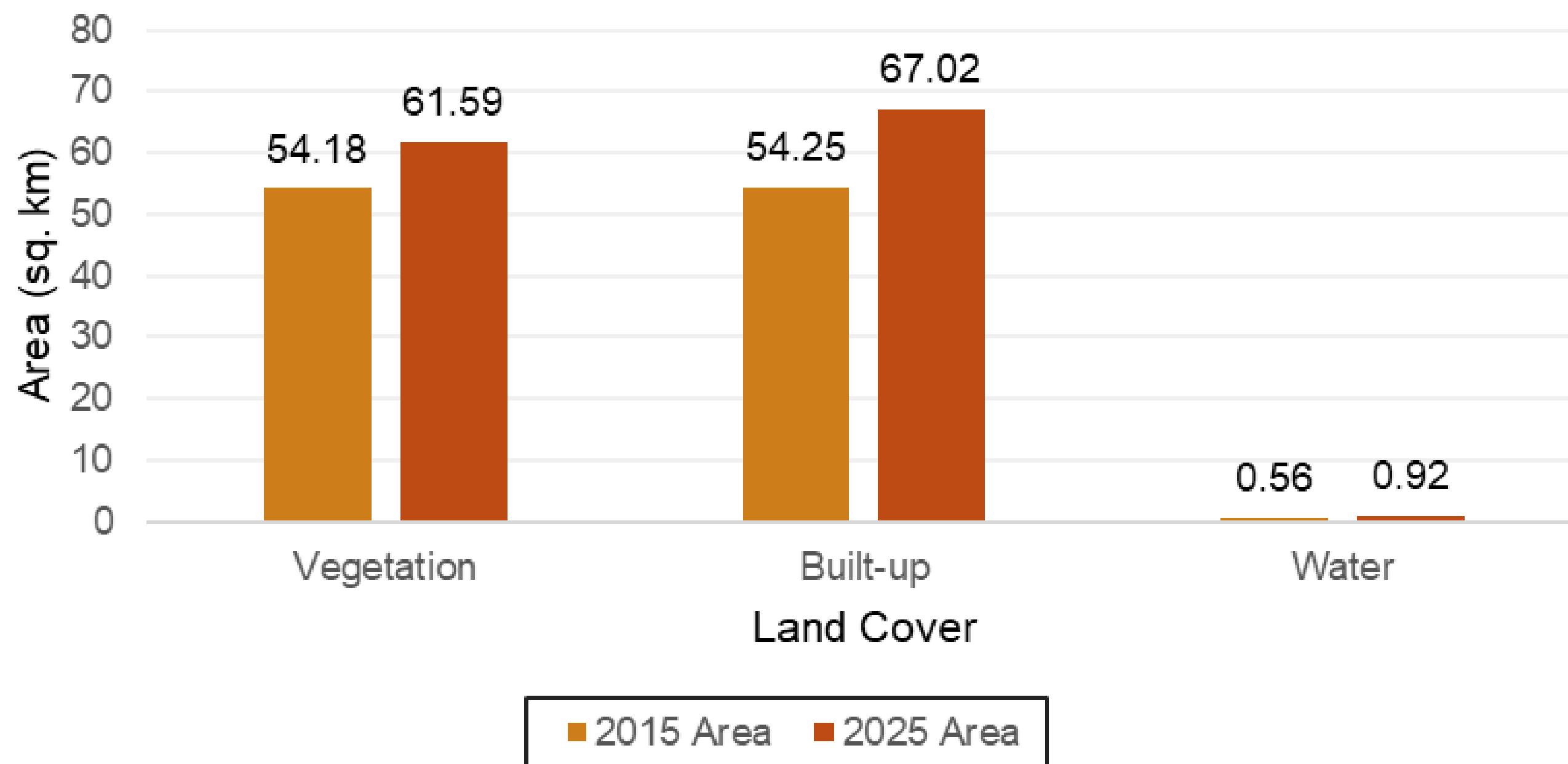
Landsat 8 OLI



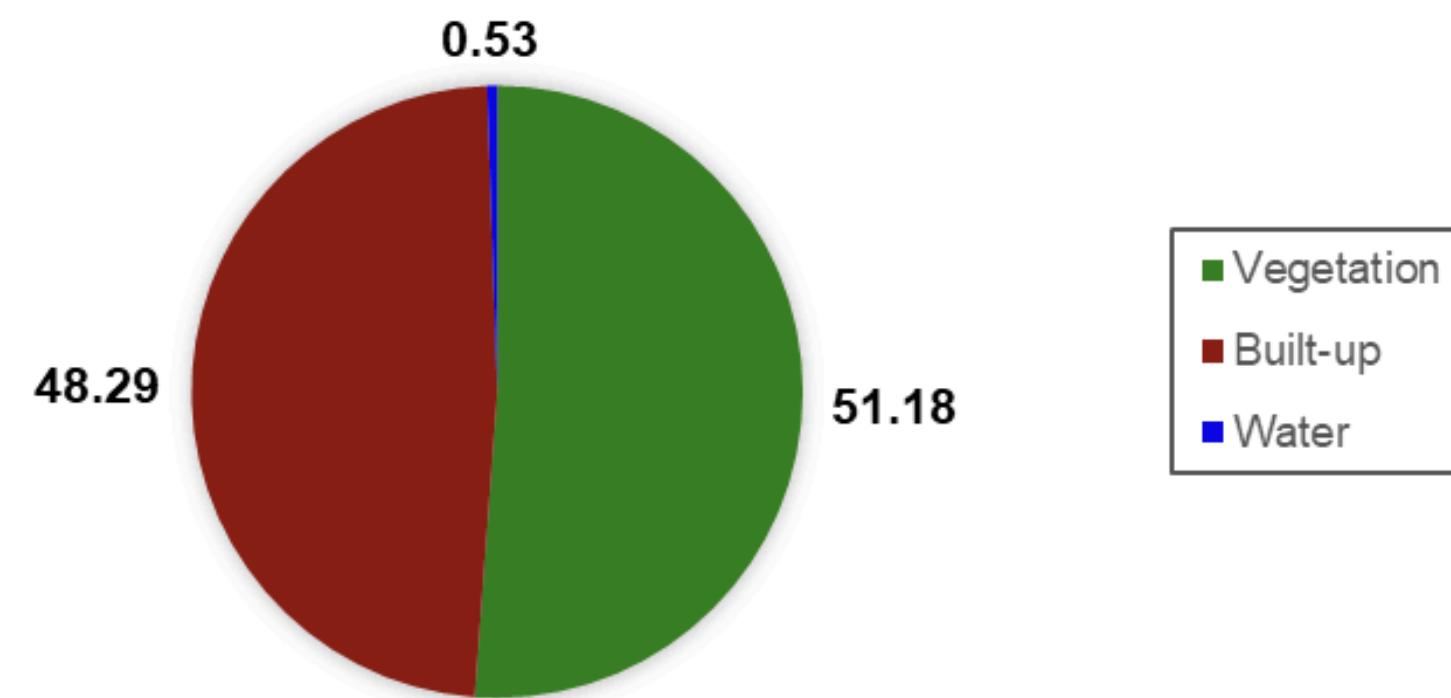
Source:
Landsat 8-OLI, USGS Earth Explorer

Change in Land Cover in Thrissur (2015 vs. 2025)

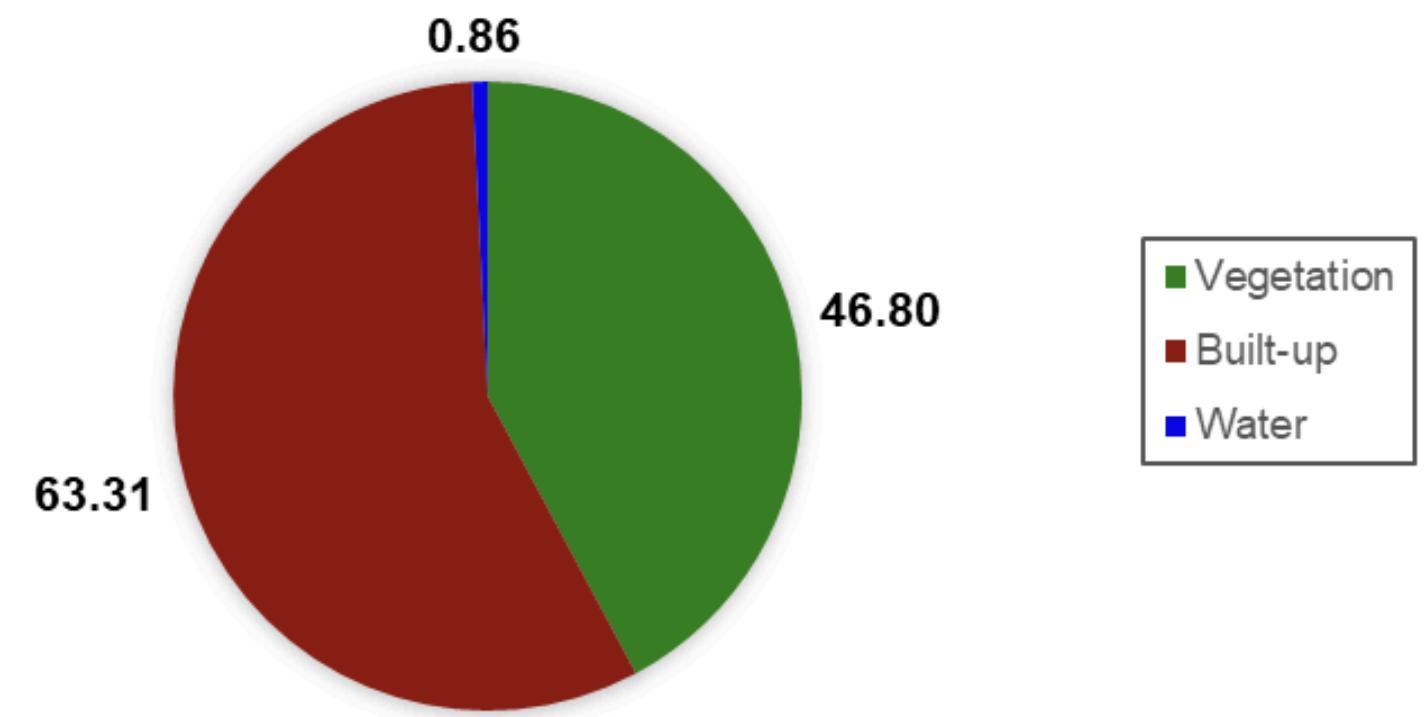
Landsat 8-OLI



**% AREA OF LAND COVER IN THRISSUR
(2015)**
LANDSAT 8-OLI

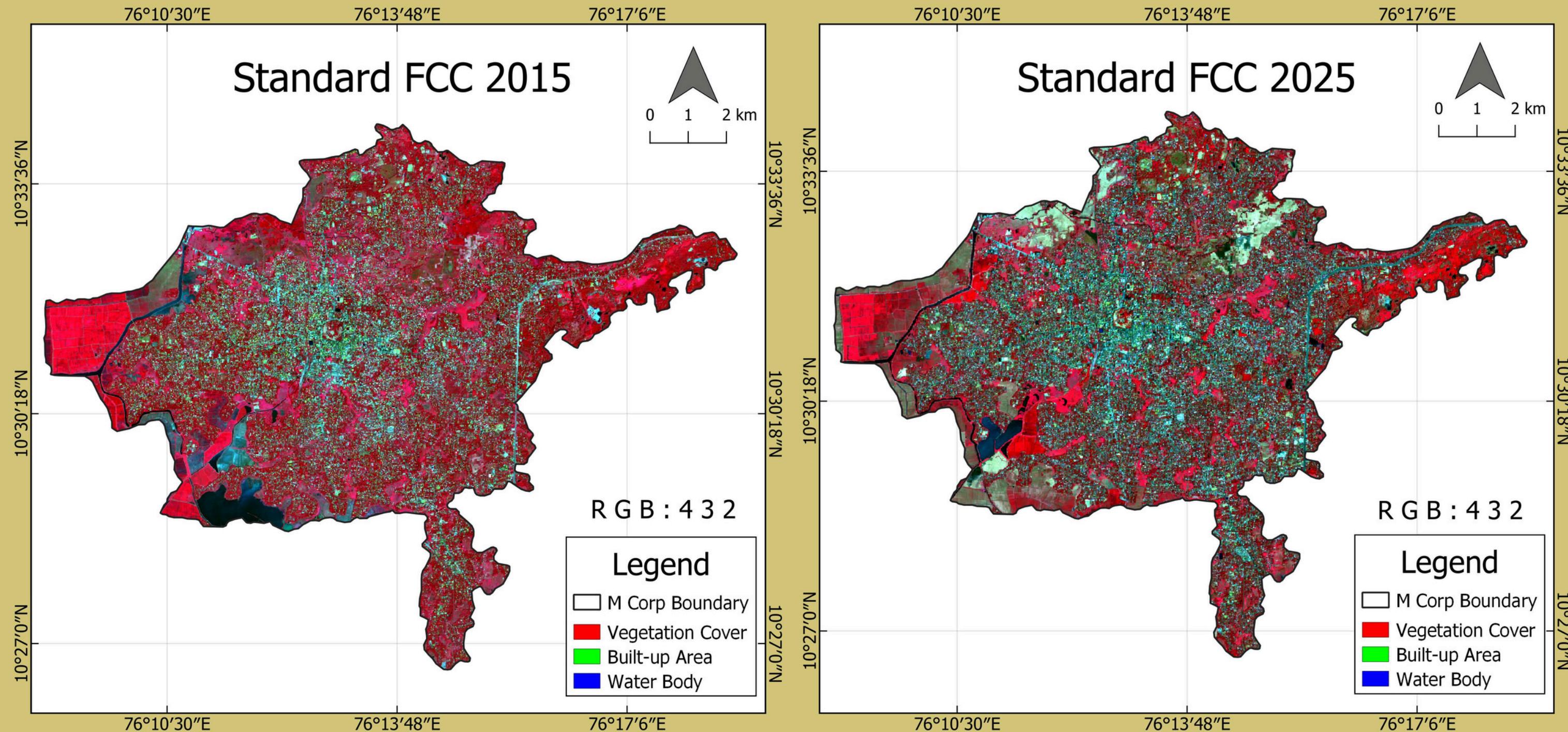


**% AREA OF LAND COVER IN THRISSUR
(2025)**
LANDSAT 8-OLI



Land Cover Change in Thrissur City (2015 vs. 2025)

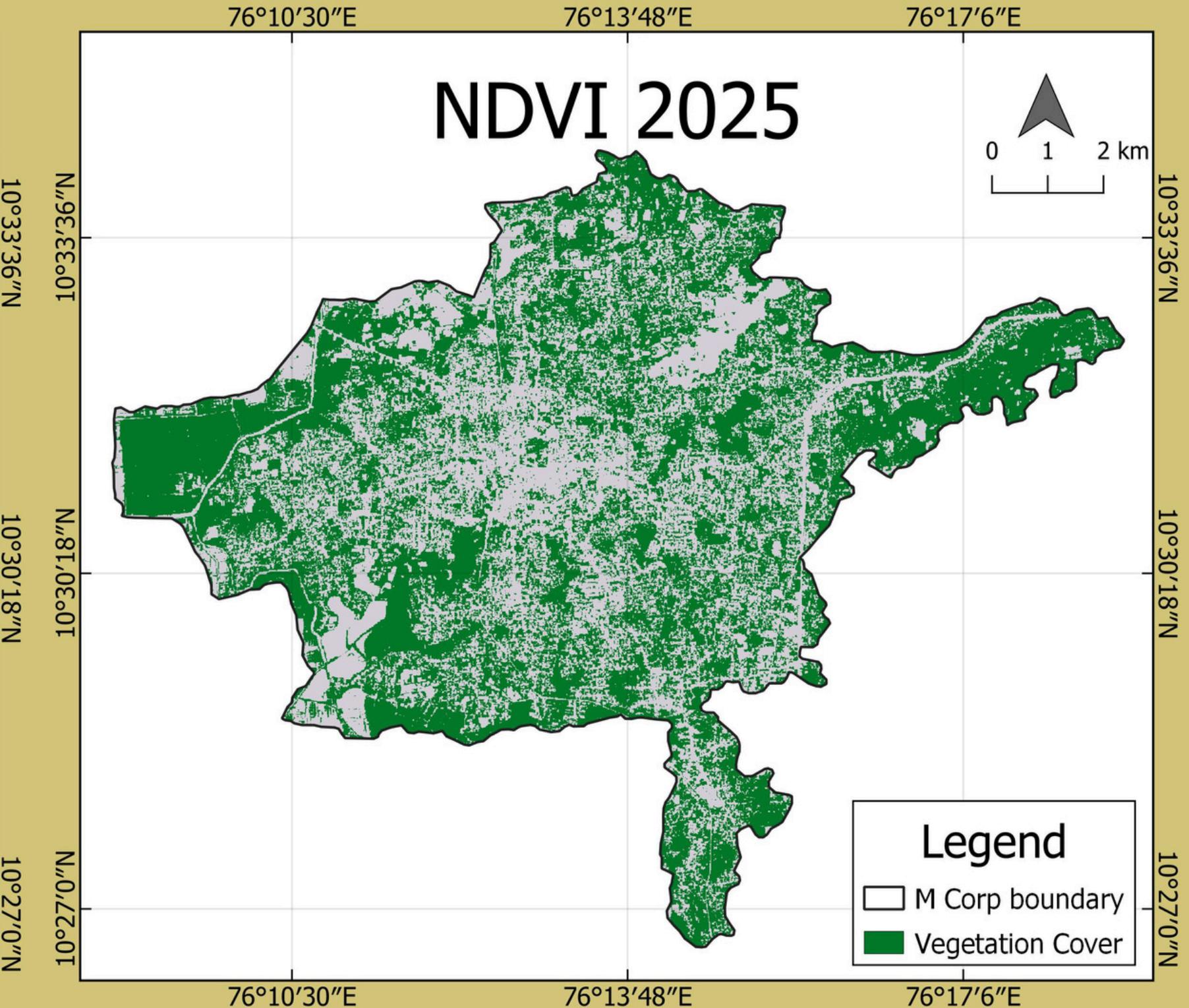
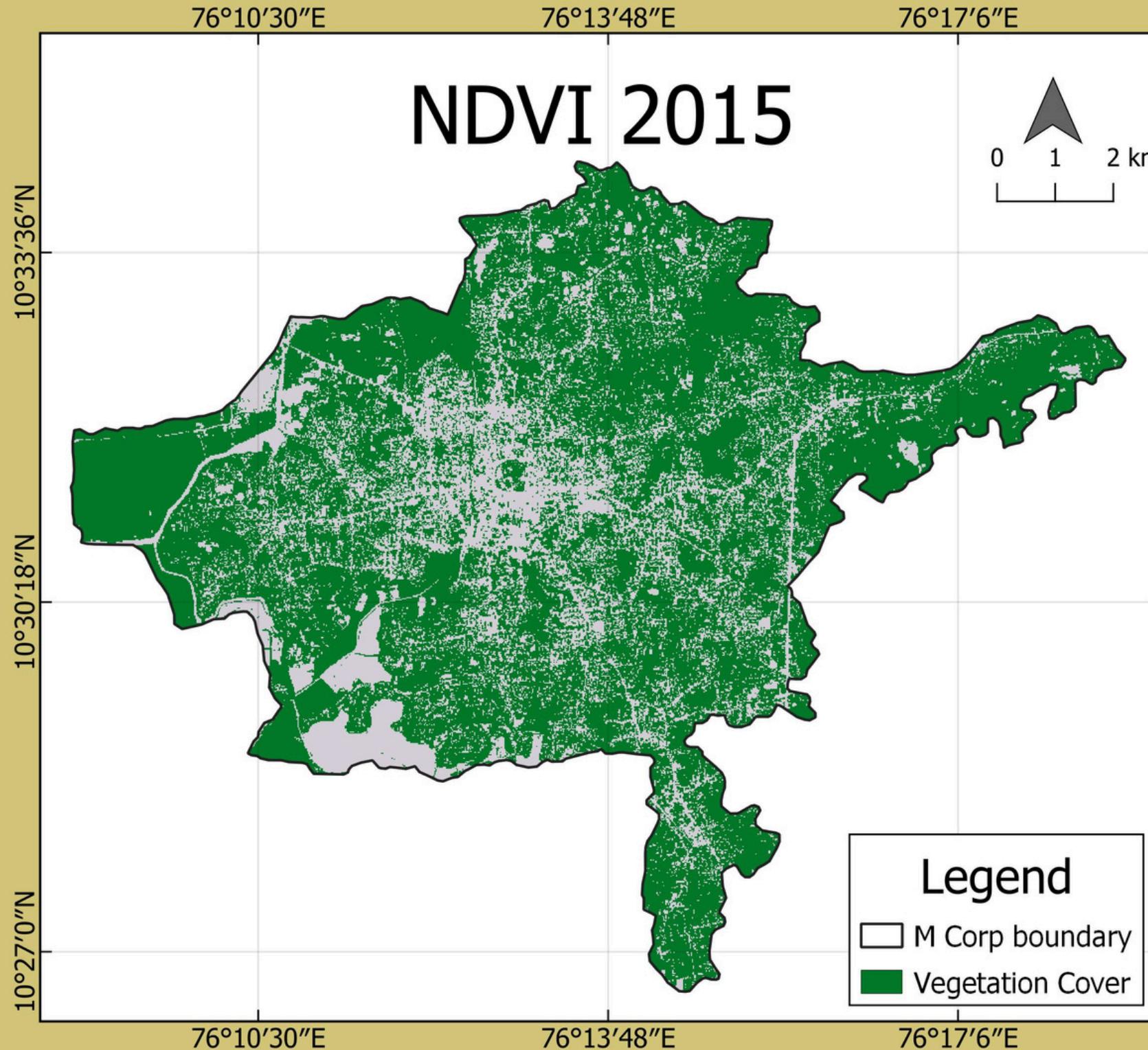
Sentinel 2 - MSI



Source:
Sentinel 2-MSI, Copernicus

Change in Vegetation Cover in Thrissur City (2015 vs. 2025)

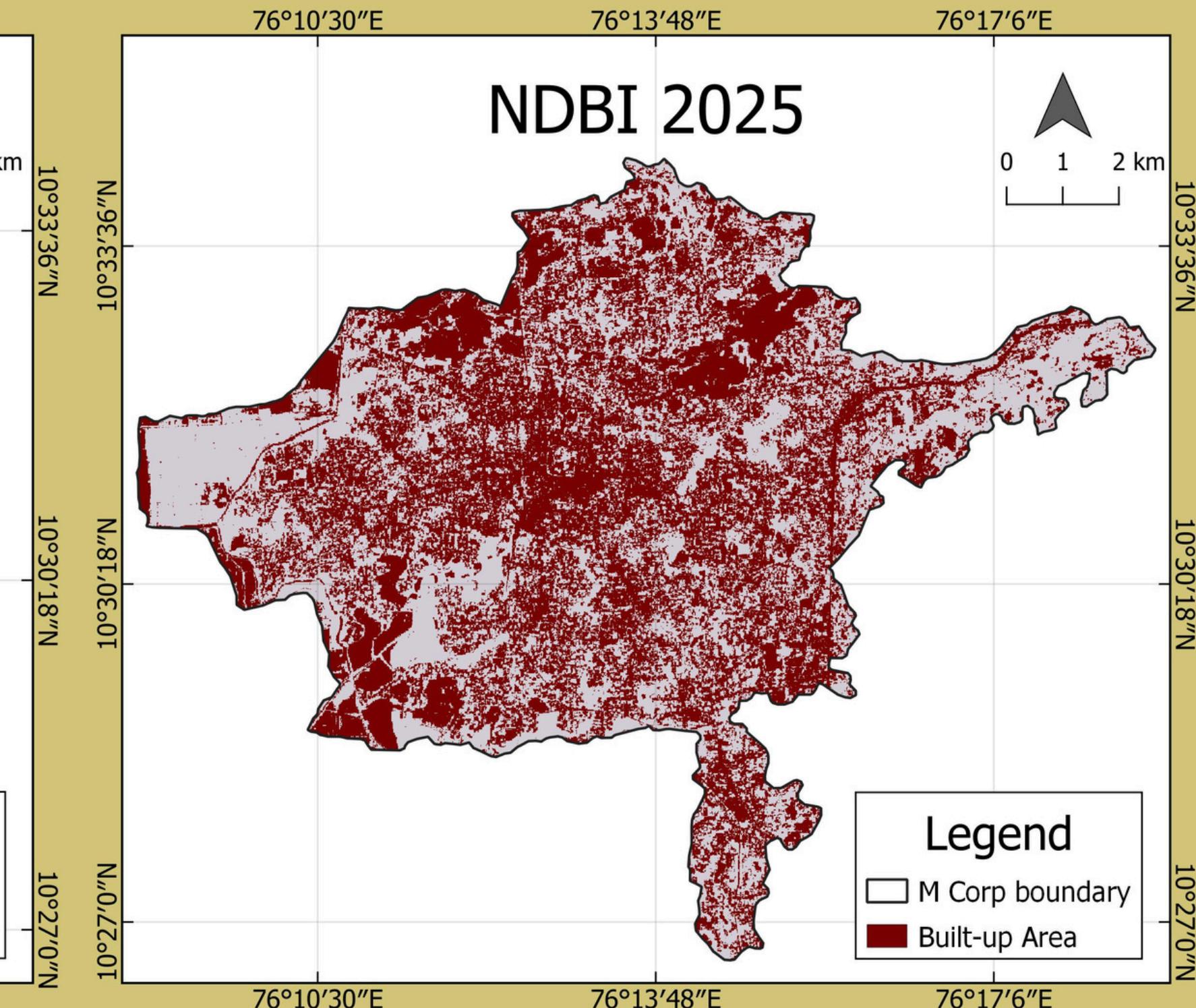
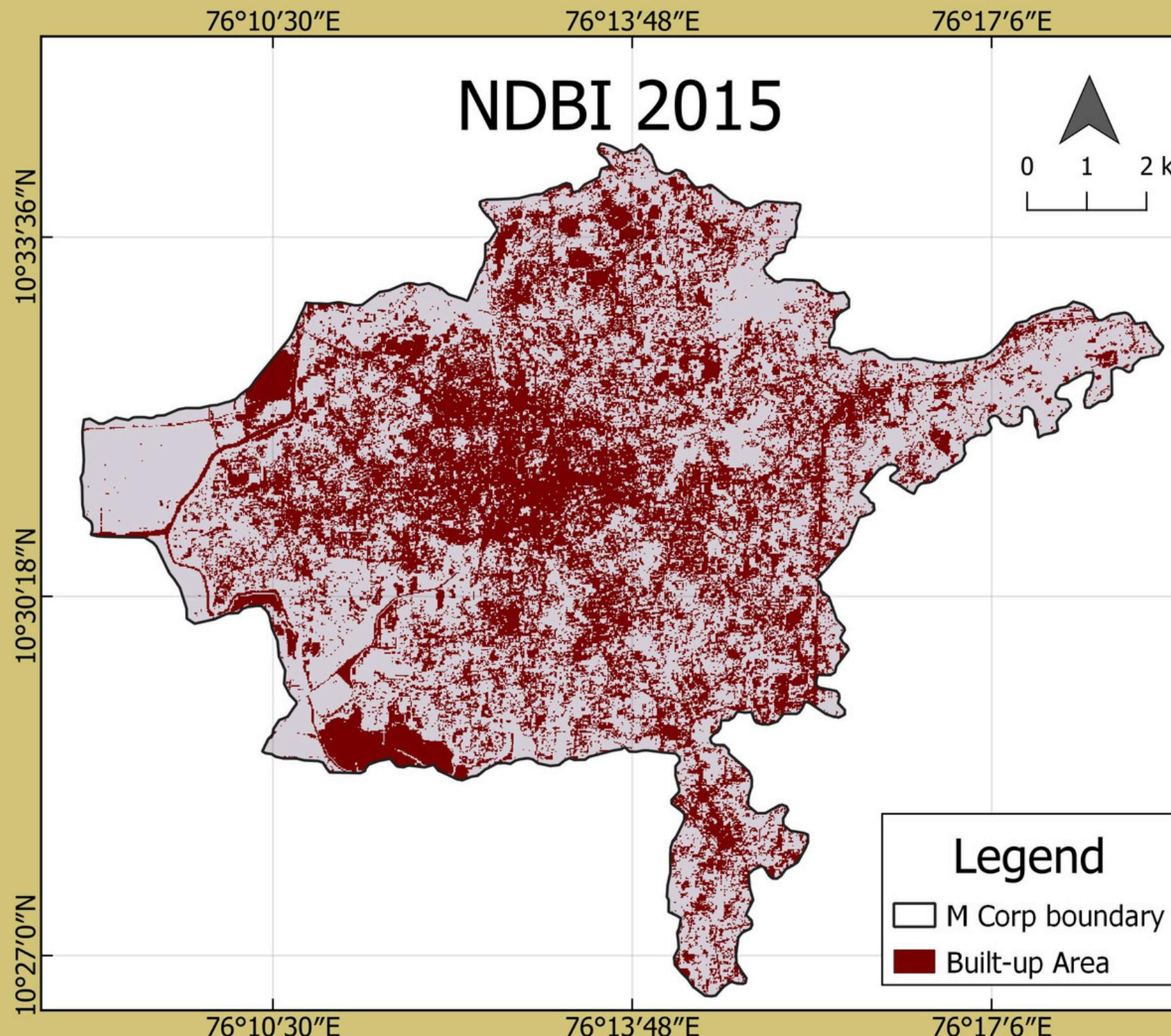
Sentinel 2 MSI



Source:
Sentinel-2, Copernicus

Change in Built-up Area in Thrissur City (2015 vs. 2025)

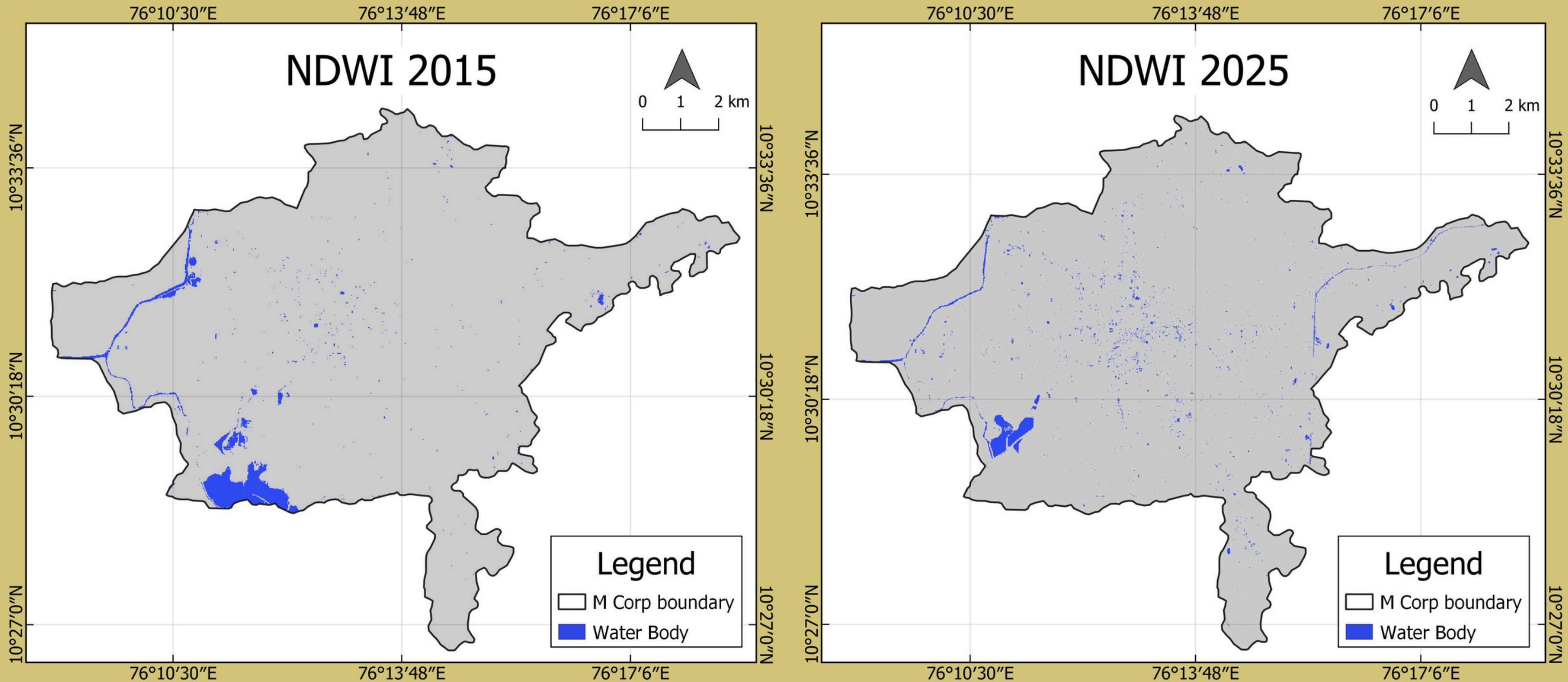
Sentinel 2 MSI



Source:
Sentinel-2, Copernicus

Change in Water Bodies in Thrissur City (2015 vs. 2025)

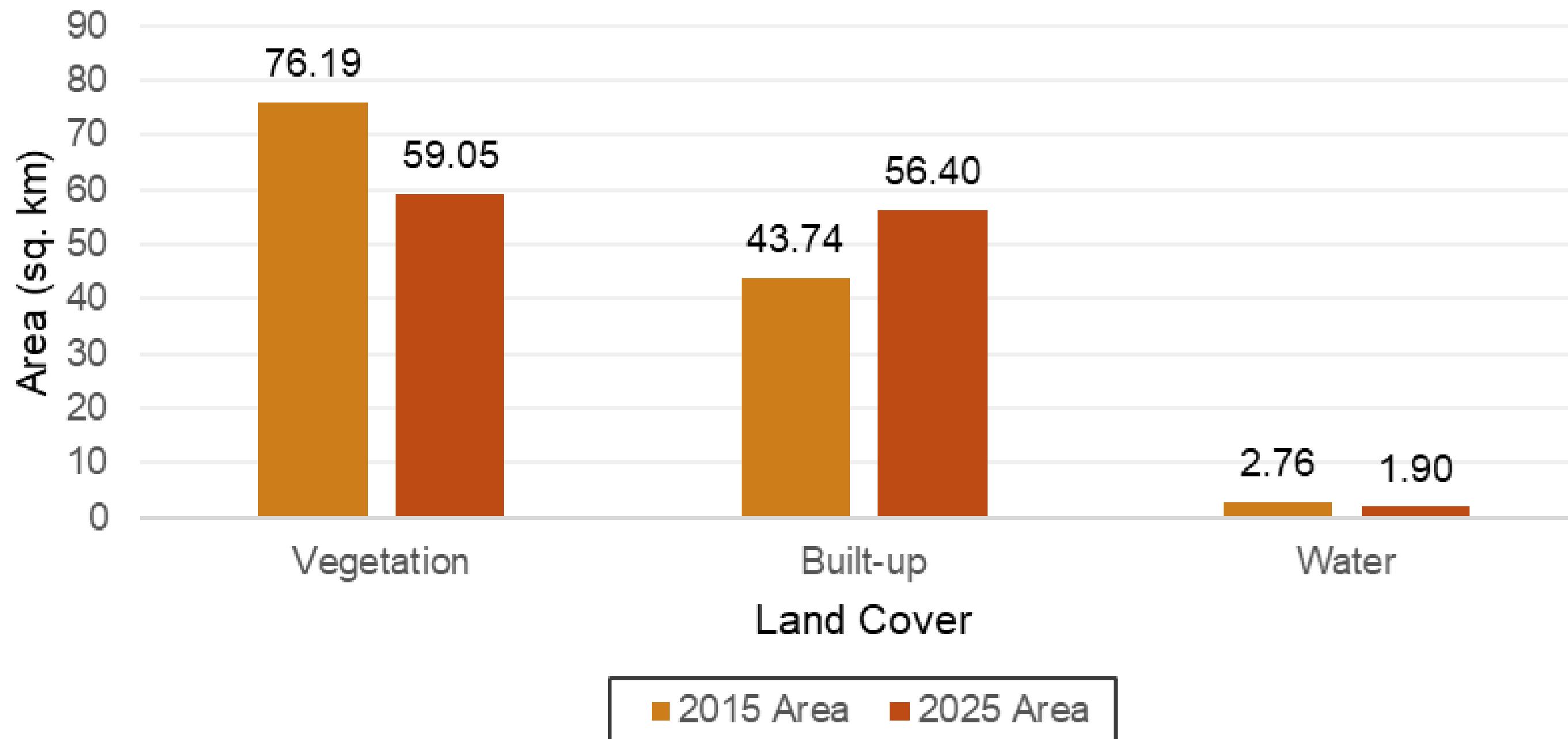
Sentinel 2 MSI



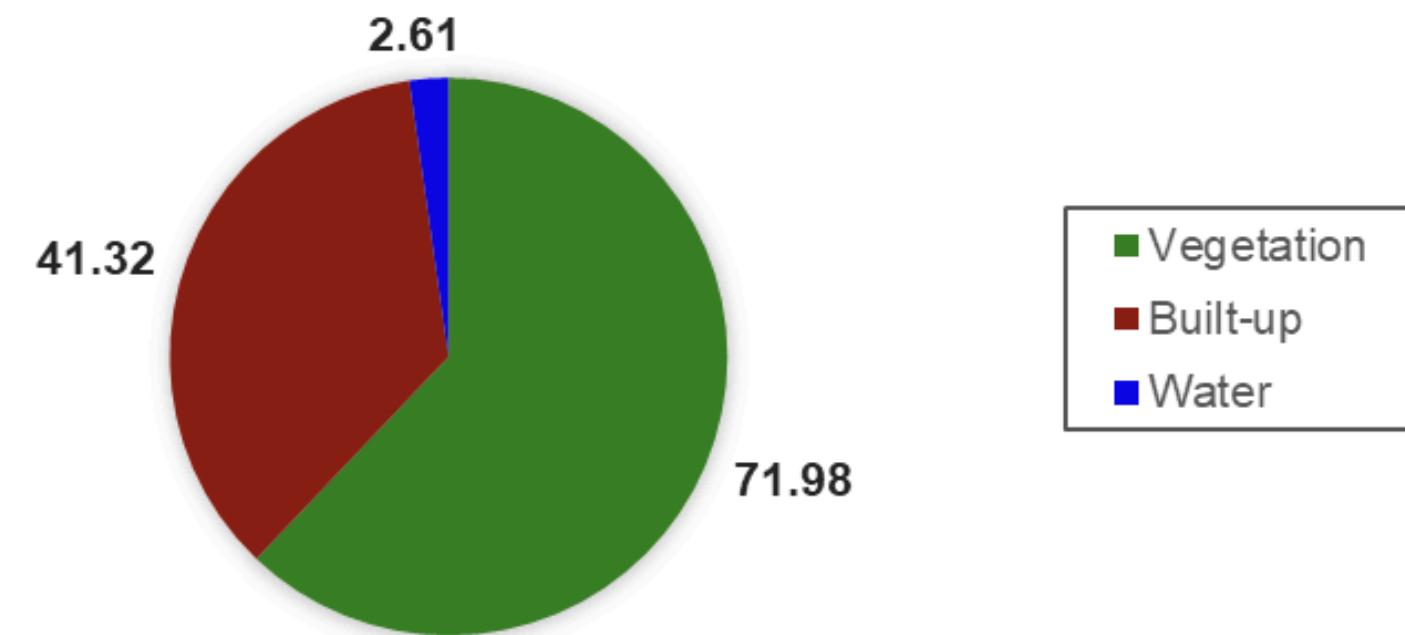
Source:
Sentinel-2, Copernicus

Change in Land Cover in Thrissur (2015 vs. 2025)

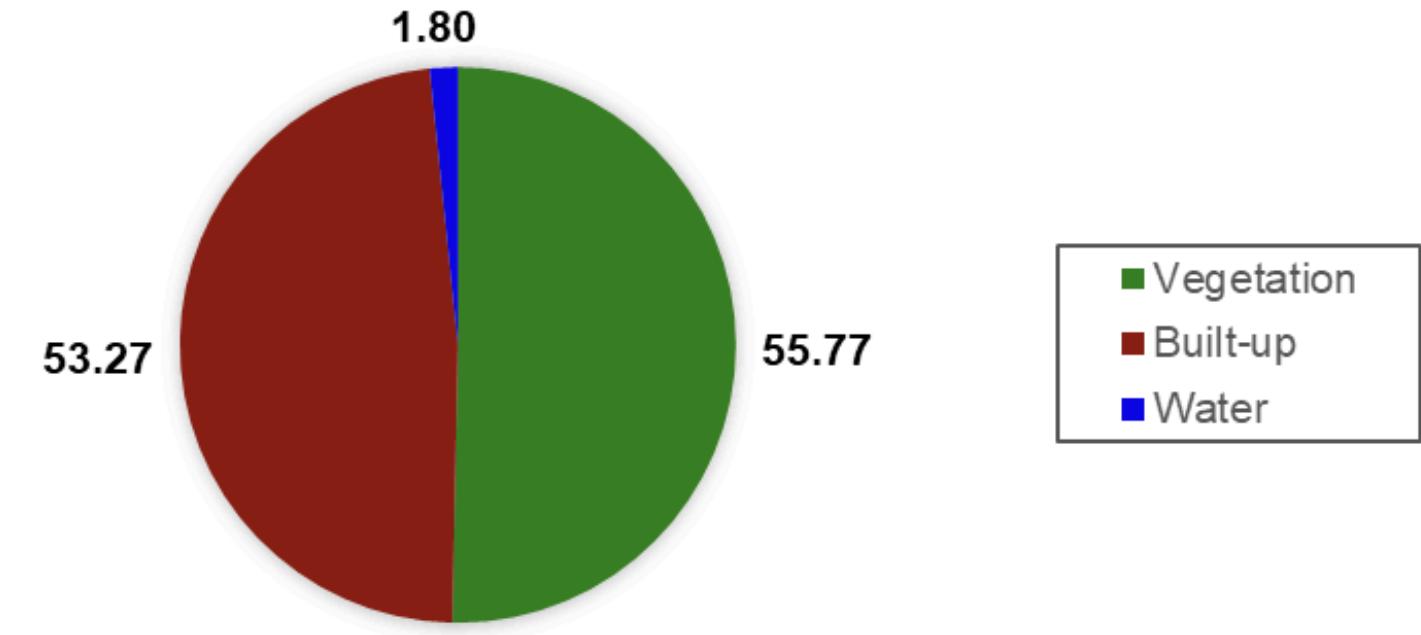
Sentinel 2-MSI



**% AREA OF LAND COVER IN THRISSUR
(2015)**
SENTINEL 2-MSI



**% AREA OF LAND COVER IN THRISSUR
(2025)**
SENTINEL 2-MSI



% Change in Land Cover in Thrissur LISS 3, OLI, Sentinel 2

