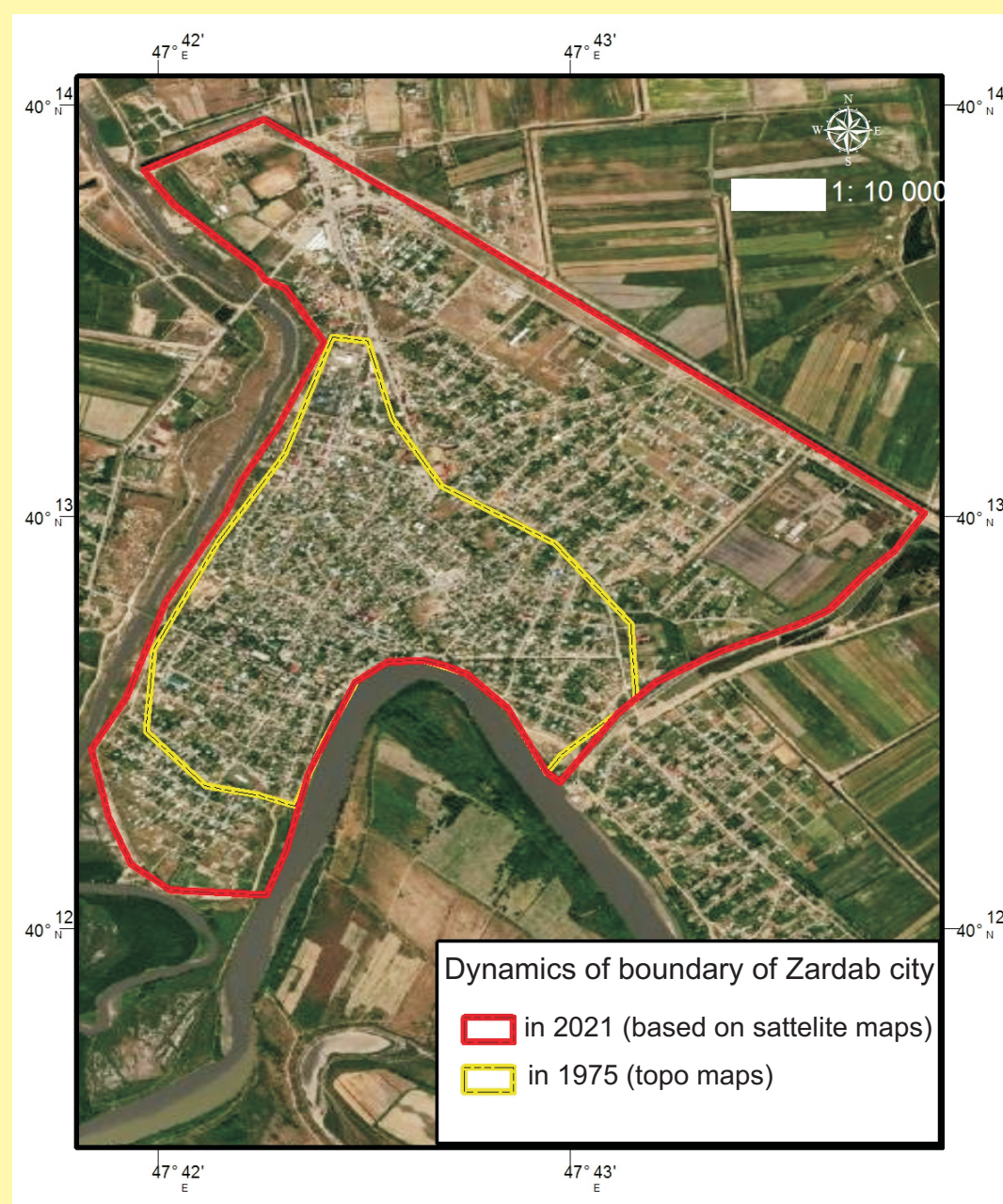


IMPACTS OF URBAN DEVELOPMENT ON CLIMATE CHANGES

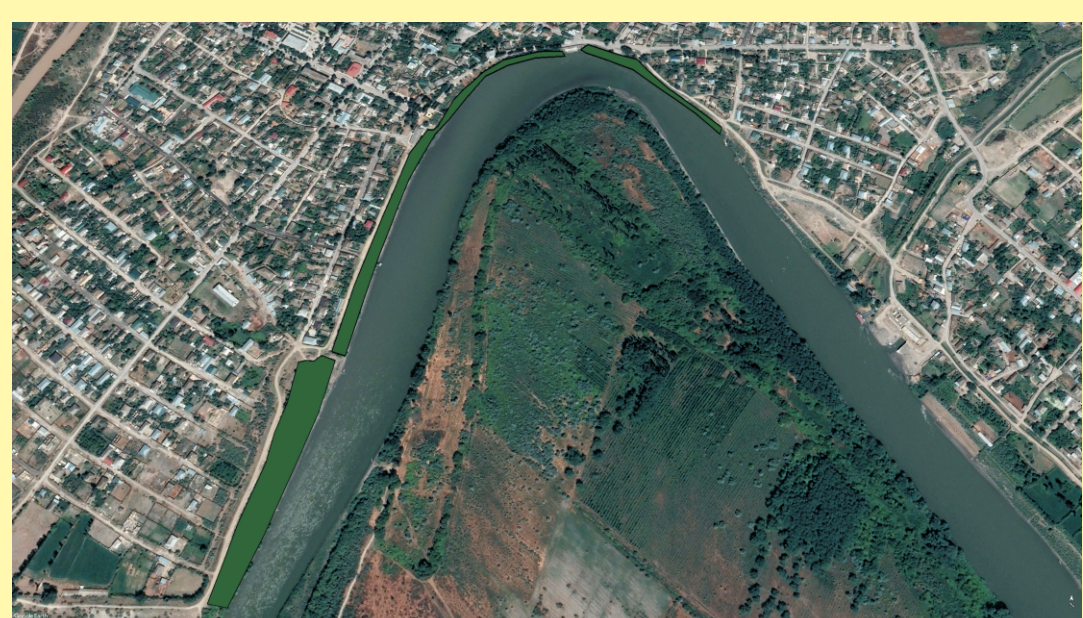
DR. SHAHNAZ AMANOVA
ANAS INSTITUTE OF GEOGRAPHY, AZERBAIJAN, BAKU

INTRODUCTION

Zardab is the capital of the Zardab District of Azerbaijan
Established: 1968
Elevation: -3 m (-10 ft)
Population: 22 000 (2020)
Time zone: UTC+4 (AZT)



URBAN AREA ON SATELLITE IMAGES



METHODOLOGY

We have used different formulas as follows:

1. To prepare NDVI map

In Landsat 8, $NDVI = (Band\ 5 - Band\ 4) / (Band\ 5 + Band\ 4)$

2. To prepare DEM

file has been downloaded from <https://earthexplorer.usgs.gov/>, then we have classified that file

3. To prepare Built Up map

We vectorized houses based on Google Earth, then calculated density of constructions in ArcMap

4. To prepare Solar Radiation map

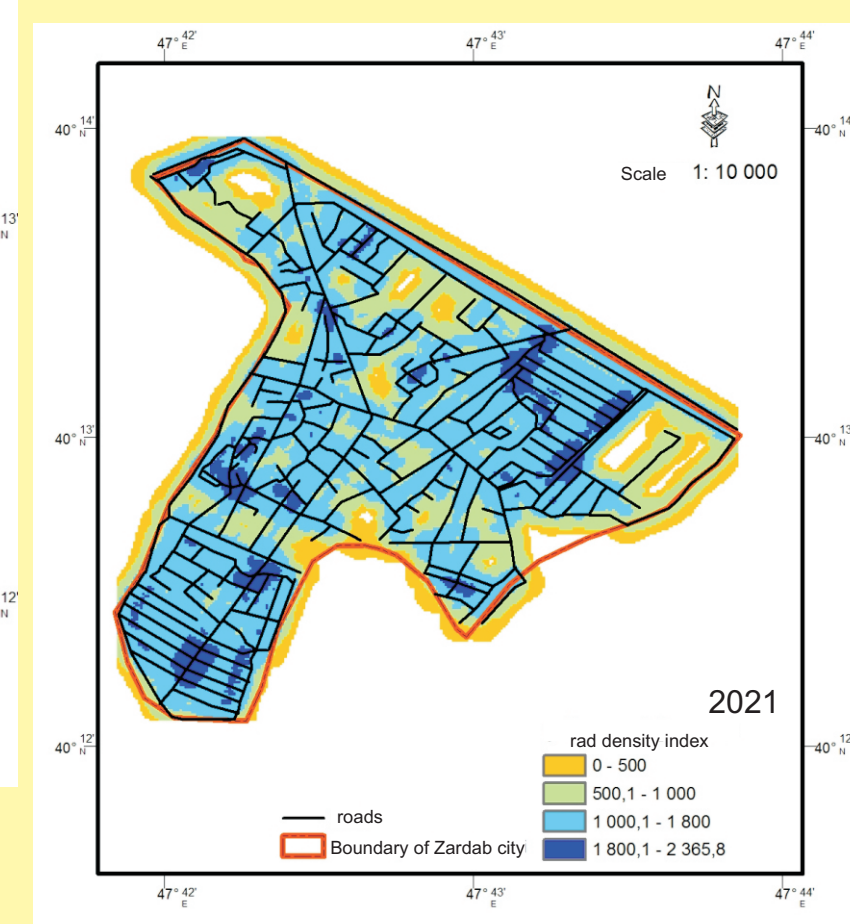
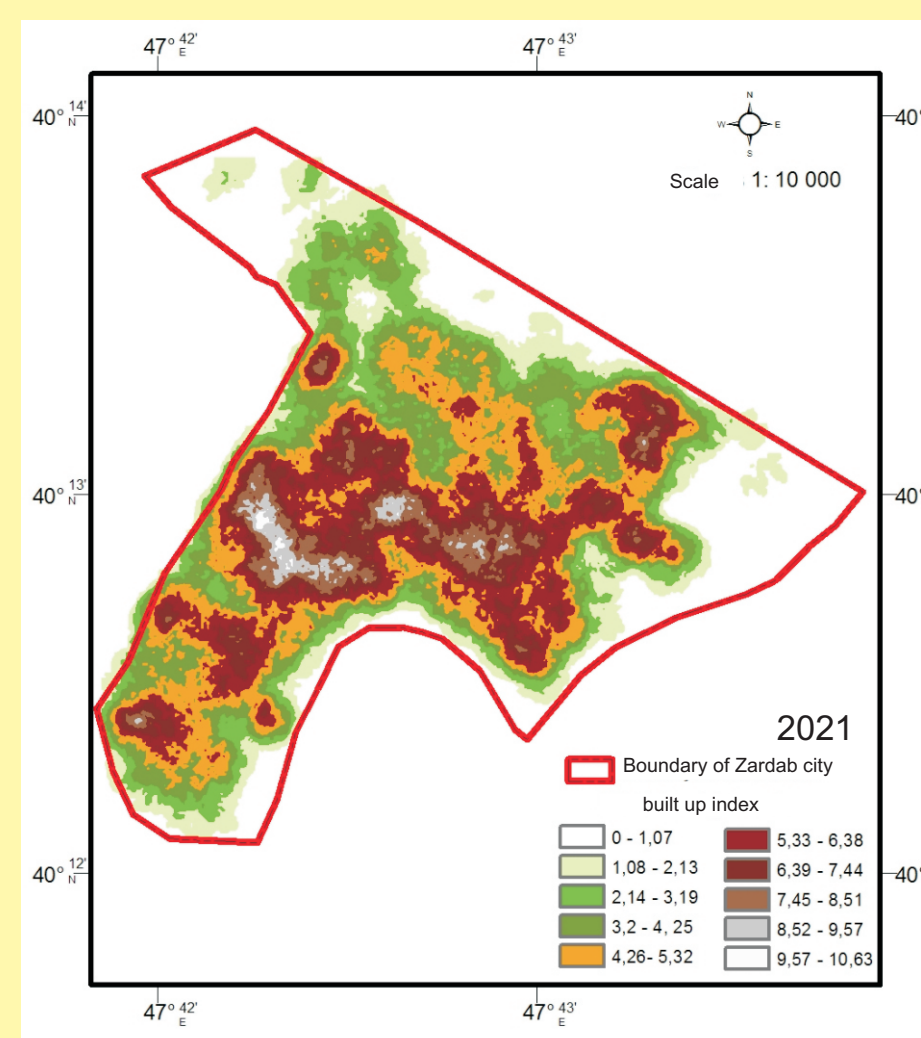
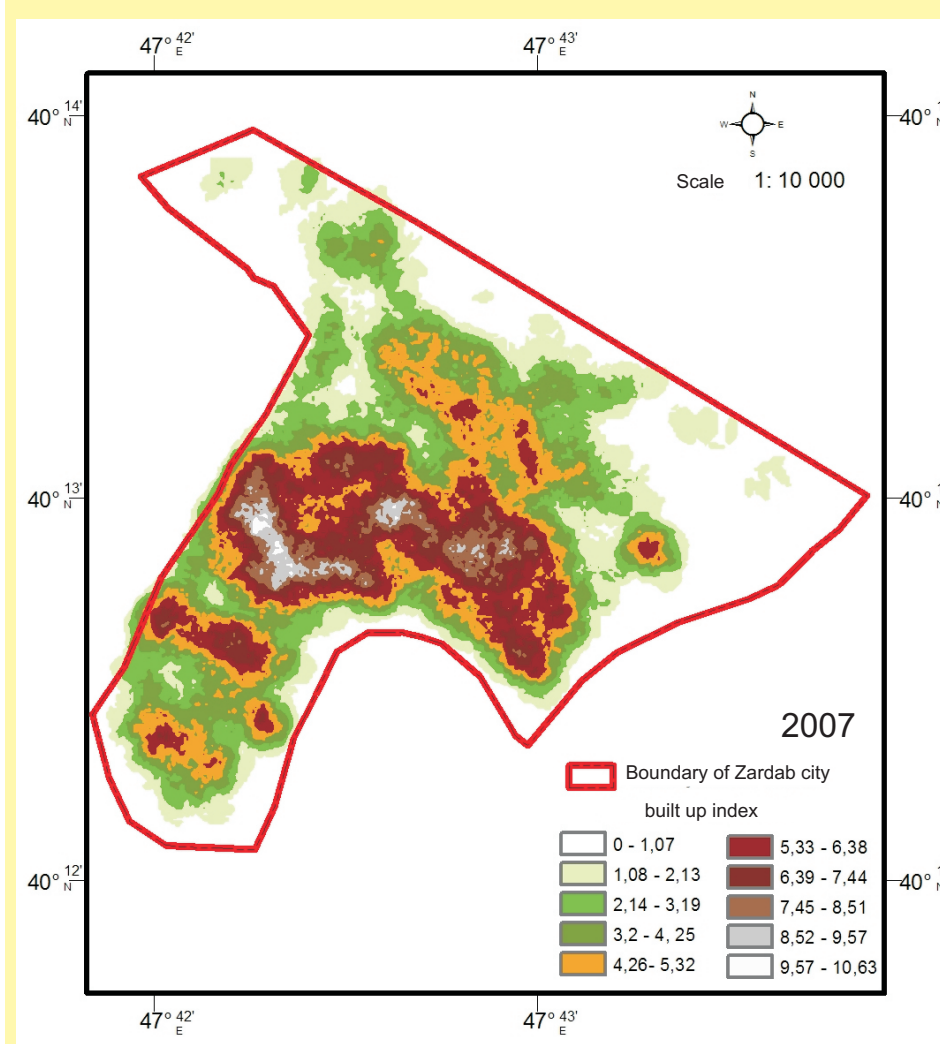
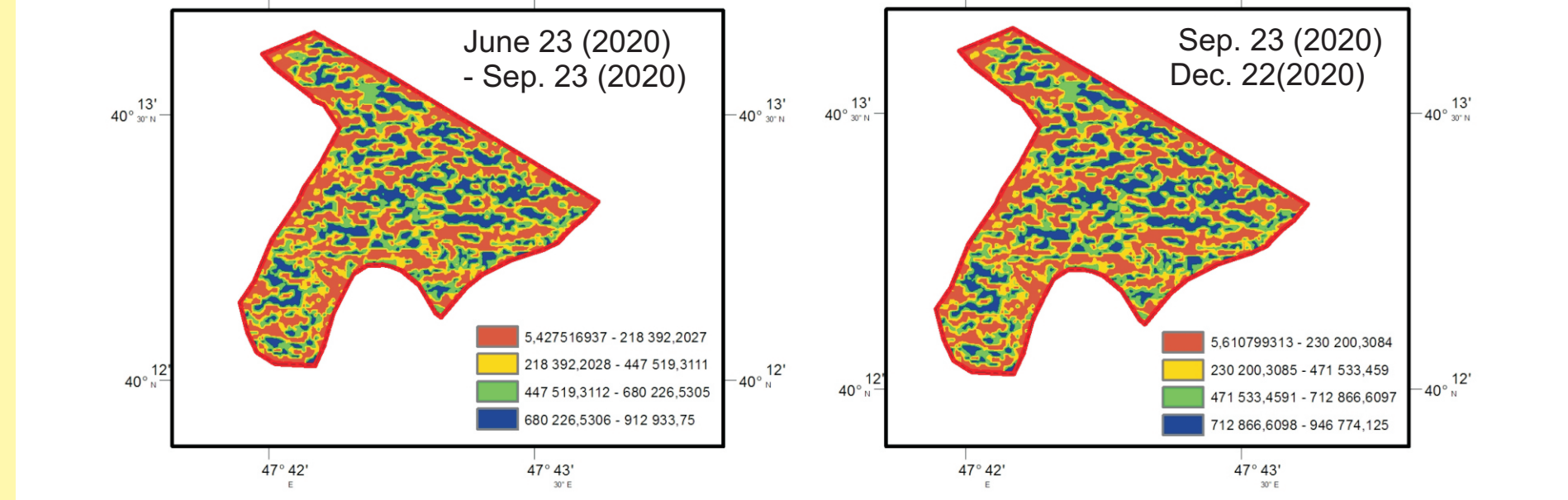
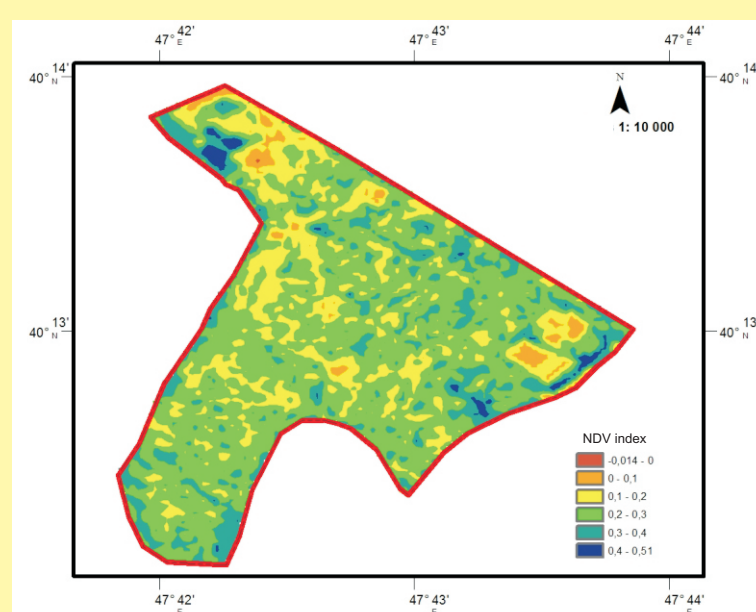
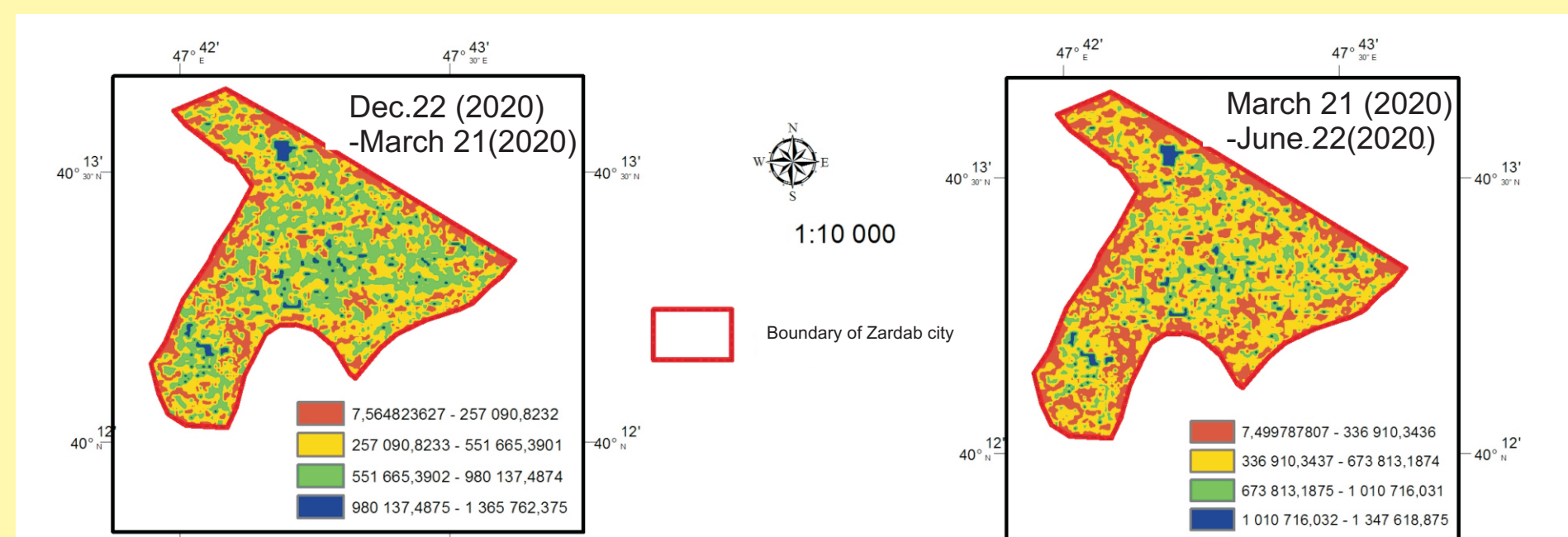
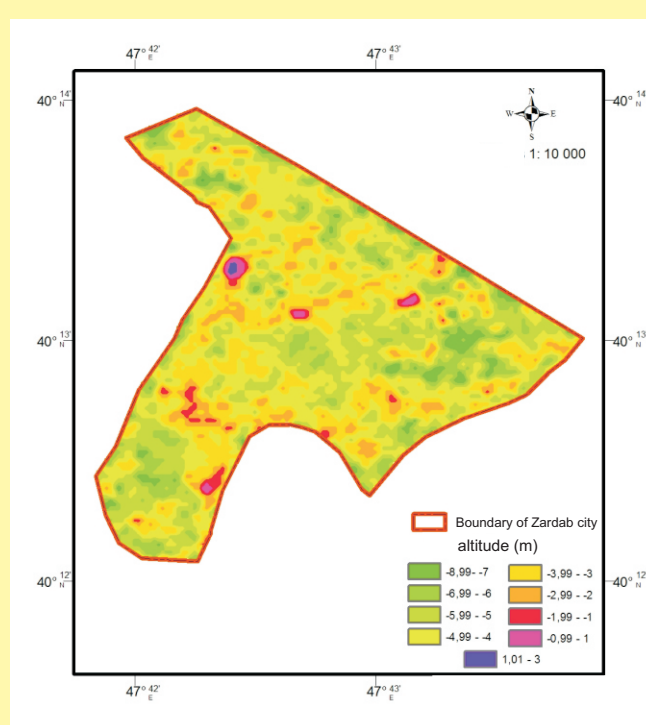
We have calculated solar radiation based on DEM file in ArcMap

5. To prepare map of Road Density

We vectorized roads based on Google Earth, then calculated density of roads in ArcMap

RESULTS

CLIMATE ON THE BASIS OF LANDSAT IMAGES



MAIN CONCLUSIONS CLIMATE CHANGES

