Urban growth is a worldwide phenomenon and the rate of urbanization has increased day by day. Rapid increase in population, urban development and industrial growth are high-inference factors that a city has well developed in all aspects. It is mostly determined by disorderly extension, expanded migration as well as quick expanding populace. In this unique circumstance, land use and land spread change are viewed as the focal sections in current methodologies for overseeing common assets and checking ecological changes. In India, metropolitan development has brought genuine misfortunes of farming area and water bodies. Urban development is answerable for a variety of urban ecological issues like diminished air quality, extended precipitation resulting in floods, increased temperature and crumbling of water quality in the world.

One of the detailed and valuable approaches to create land use characterization maps is utilization of geospatial methods, namely remote sensing and Geographic Information System (GIS). It immensely improves the determination of zones assigned as horticultural, modern and additionally urban area of a district. With respect toTiruppur district and its environmental factors, change in land use has been watched and new turns of events (agriculture, business, modern and urban) are rising each day. Consequently, the reasoning of this investigation is to assess land use/spread changes in Tiruppur district from 1991 to 2018. Measurement of spatial and transient dynamics of land use/spread changes are accomplished by utilizing two satellite pictures, ordering them by means of administered arrangement calculation and lastly applying post-characterization change discovery procedure in GIS. The expansion was seen in agricultural area, built-up area and water body 1991 to 2018. As a result of which, woodland and desolate region followed a declining pattern. The driving force behind this change was financial turn of events, environmental change and population growth. Fast urbanization and deforestation brought about a wide scope of natural effects, including debased environment quality.

In addition to these factors, the population has expanded enormously in the recent fifty years. The significant piece of population growth is identified with relocation

from different parts of the nation towardsTiruppur region. Considering the speed of urban sprawl growth rate, the scale and the part of the city have changed from medium and territorial to huge scope and trans-regional. The characteristic and secondary limitations have been the major cause for over 75% of infertile terrains, sea shore zone, and agrarian grounds which are involved by developed territories. The outcomes of this studyrevealed that the irregular extension of Tiruppur region must be controlled such that reasonable development could be accomplished.

The cycle of land use change and urban sprawl are considered as noticeable characteristics of metropolitan development. The present study aims to examine urban growth process in Tiruppurregion, Tamilnadu, India. Furthermore, it focuses on urban sprawl and land use change during 1991-2018. In this background, geospatial and remote sensing techniques are efficient tools which can be applied in the analysis of land use change detection. In order to calculate urban sprawl, land use changes and satellite images are utilized in different time spans of 28 years. The results validate that urban region area has changed from 452.26 to 1407.45 hectares between 1991-2018.

This investigation applied a progression of Landsat pictures to evaluate the urban extension, resulting in LULC changes for more than 28 years, from 1991 to 2018. From the beginningtill the end, urban extension had expanded by 1048.24 km^2 with a yearly growth pace of 32.58 %. There were four phases of urban growth: namely, low rates from 1991 to 2001, expanded rates from 2001 to 2011, high rates from 2011 to 2018, and consistent expanded rates from 2015 to 2018. Similarly, there were three diverse urban growth types in these various stages: edge-development growth, infilling growth, and unconstrained growth. Other land spread, for example, cropland, woodland, and mosaics of cropland and characteristic vegetation, were also seriously affected. To dissect these changes, scene measurements were utilized to portray the adjustments in the spatial examples over the Tiruppur region. In addition to this, the effects of urban growth on different sorts of land spread was also represented. The critical changes in LULC and

urban extension were exceptionally related with monetary turn of events, population growth, specialized advancement, strategy components, and other comparable lists.

With the utilization of Analytic Hierarchy Process (AHP) and extra master information, fitting weighting factors have been subsidiary. The outcomes show that farming area diminished by multiple thirds during the period considered. Be that as it may, especially the western rural side of the Tiruppurregion actually offer a lot of significant agriculture land suitable for protection. The proposed strategy can fill in as a logical structure for arranging divisions of quickly developing urban communities to zone farming area for security on an early arranging stage so as to guarantee feasible land use advancement later on. Using AHP, change detection analysis divulged that, built area has increased by 78% and agriculture land area has reduced by 45% during the year of 2011 to 2018. The results of the present study, future prediction and recommendation for development are also found using AHP analysis. The AHP analysis also reveals that, eastern and northern part of the study area is suitable for further development of industrial and modern urbanization activities.