

Time-serial trend of built-up area of China - A preliminary consideration of statistical data

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The research group of SLUAS (Research project of "Towards Sustainable Land Use in Asia" Grant-in-Aid for Scientific Research(S) 2009-2013, Yukio Himiyama) has executed several research field trips in various regions of China. The author fortunately has chance to join the field trips and to observe several land-use conditions and land-use changes on the way. As a result of those research field trips, the author confirmed that the built-up area remarkably expanded by fast growing economy of big cities in the coastal area such as Beijing and in those cities not only the industrial development but also the housing development and shopping malls are developed actively in the suburban area. On the other hand, the author also felt that the cities in the inland area, however, it is late comparatively its economic growth from the coastal region, a built-up area growth is generated recently by the industrial and housing developments in the high rise apartment building etc. The present study intends to confirm such a personal impression about recent built-up area growth of China by using statistical material.

The objectives of the research are as follows. First object is to confirm time serial feature of the built-up area expansion. Second is to analyse the relation between the built-up area expansion and population scale. Third is to confirm regional difference of built-up area expansion by using regional division in China. And forth is to consider factors or the background of the built-up area expansion. So the author analyses the relations among built-up area expansion, a population increase, and GDP indexes. Findings concerning obtaining by these objectives are beneficial to estimate how a spatial expansion of the China city will become in the future.

The author set up hypothesis obtaining by the research are as follows. One is that built-up area expands according to a population increase and economic growth of a city. Second is that structural change of an economic condition of a city such as secondary industry and tertiary industry is reflecting its expansion of built-up area of a city. Third is that the growth wave of a city spreads from the coastal region to the inland area.

Keywords: built-up area, population, regional division, economic structure