

## Measuring and evaluating spatial feasibility of urban services (Case study: nine areas Shiraz city)

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### Extended abstract

**Objective:** In recent years, urban plans gradually adopted a strategic nature, and urban planning was directed towards spatial planning on one hand and pragmatic planning on the other. Based on systematic methods, these developments concentrated on comprehensive analysis of “problem” rather than comprehensive recognition of the “subject”. The reason is that it has been both “practically” and “theoretically” found that solving a problem, first of all, requires proper formulation of the problem. In many developed countries, fundamental modifications were made in the basics of urban plans and their overall tendency was towards more popularity and adaptation to civil society demands. Although these urban development plans, particularly the comprehensive plans, were prepared by spending much time and money and had significant effects on dividing the land uses and observing construction terms and conditions, not all targets were realised for some reason. One of the cities of Iran, which deals with problems of land use distribution, is Shiraz. The main purpose of this research is to analyse the factors affecting the realisability of service land uses of Shiraz and suggest optimum, strategic solutions for improving its condition.

**Methodology:** The present research is an applied study in terms of purpose and descriptive-analytical in terms of method. Statistical population includes service land uses of Shiraz regions including parks and green spaces as well as academic, sports, sanitary, religious, and cultural land uses. In order to evaluate the mentioned uses, per capita of the status quo and per capita of the suggested second comprehensive plan (1989) were compared with approved per capita of Supreme Council of Urban Planning and Architecture and detailed plan review. Williamson scattering coefficient was used to measure the spatial balance process of service land uses of Shiraz regions. To achieve the research objectives, library and field methods were applied in Excel and Arc GIS.

**Results:** The present research aims at investigating the realisability of service land uses of Shiraz in the comprehensive plan. Spatial balance process of service land uses of Shiraz regions was measured by studying the statistical population of service land uses of Shiraz regions including parks and green spaces as well as academic, sports, sanitary, religious, and cultural land uses and comparing per capita of the status quo and per capita of the suggested second comprehensive plan (1989) with approved per capita of Supreme Council of Urban Planning and Architecture and detailed plan review. Regions were ranked by their realisability of per capita of service land uses, compared to the per capita of the suggested comprehensive plan (1989). The results show that the per capita of service land uses of Shiraz comprehensive plan has not been realised after more than two decades.

Shiraz regions can be ranked by realisability of comprehensive plan as follows:

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1<7<5<8<3<9<6<2<4

Accordingly, regions 6, 2 and 4 had the highest and regions 1, 7 and 5 had the lowest environmental sustainability. This shows inappropriate and unfair spatial scattering of service land uses in Shiraz regions. Land use analysis with indicators of capacity and social justice indicates quantitative and qualitative problems in land uses of nine regions of Shiraz.

**Conclusions:** Regarding the realisability of comprehensive plans, evaluation process as management did not have a proper place in the planning system. Therefore, their strengths and weaknesses must be first identified scientifically, then the results be established in the planning system. If plan realisability is evaluated at the stage of plan implementation, then its weaknesses will be identified and removed at the same time. Moreover, urban development plans must be considered physically and perform development policy-making and physical changes of cities quite locally.

**Keywords:** Feasibility, Service Uses, Entropy Method, Weighting Model, Shiraz City.

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