

# **Evaluating Quality of Life in Rural Areas Using Fuzzy Topsis**

## **Case Study: Myandeh Village, Fars Province**

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### **Extended Abstract**

#### **Introduction**

Recognition, measurement and improvement in quality of life are the main purpose of the research. Since 1960s, the quality of life has become as one of the favorite subjects in social science. Because in this decade it was determined that economic progress does not improve the life of people. The quality of the life of people and rural places depend on many factors, including employment, proper income, services like education, hygiene, health, natural environment. Although, the quality of the life of people and urban places depend on these factors, but challenges related to welfare and good life in the urban region is so different from those in rural region. Factors such as small scale and low population density in urban region, low employment and income in agronomy section, difficult accessibility, geographic isolation, and poor connection ways all complicate implementation of important policies. Therefore, the main purpose of this research is determination of indicators,

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evaluation of the quality of subjective life in rural center of Miandeh in Fars. At first, the related sources of Quality of life were observed to select the appropriate path.

### **Methodology**

Then, after some rural areas were selected from Miandeh County as the most appropriate area for this research, the rate of the rate of residents satisfaction in terms of their Quality of life were measured by using field study methods. The sampling size was estimated 385 residents by using Cochran's formula and considering both confident coefficient of 95 percent and the maximum heterogeneity hypothesis. The current research is intended to compare the obtained data of Miandeh rural-ship in terms of their view about their satisfaction of their quality of living. The researchers have used TOPSIS fuzzy technique in order to achieve the mentioned objective of the research. The obtained results have been placed in 3 categories (High satisfaction, middle and low satisfaction) using cluster analysis.

### **Results**

The obtained results show that the most sustainable rural of the Miandeh rural-ship is Miandeh which has taken the highest score in 5 dimensions. In addition, it has created the absolute category itself in 3 criteria of environmental, physical and social health. In this regard, the rural of Miandeh is recognized as the most suitable area to live with the fuzzy score of 2.46 and the highest average of 0.49. The rural areas including Nasirabad, Rahim abad, Geharab with the FTOPSIS score of 2.16, 2.15 and fuzzy average of 0.43, 0.429 and 0.42 are placed in middle level of quality of life. Actually, the three mentioned areas need to get more attention than the rural of Miandeh. The rest of the rural areas such as Bidzard, Bishezard, Sadeh and Abuzarabad are not in appropriate condition in quality of life. In this case, the obtained results for mentioned rural areas have fuzzy averages of 0.409, 0.407, 0.406 and 0.403. This shows the inappropriate condition of such areas. Additionally, the related calculations to Pearson correlation indicate that among various dimensions of quality of life in rural areas, only 2 significant relationships (between

physical health and social health and between environmental health and physical health) are observed as incomplete relationships. Different decisions based on the available resources to enhance the quality of rural life, conditions of local and regional areas and the needs of residents in target areas, require comprehensive and scientific knowledge. From 1960 the scientific efforts to define the term of quality of life have been developed in identifying the constituent elements and methods of measuring quality of life. The main objective of this study was to determine the parameters of the research, evaluation and assessment of subjective quality of life in rural district of Fasa Town ship. In this study, three levels of satisfaction with an acceptable quality of life (stable), medium low (unstable) were recognized. The findings suggest that in terms of the environmental health, Miandeh village were identified as the most stable village and in the next level is the village of Nasirabad. Other villages are unstable with respect to environmental health. In dimension of social health, Miandeh Village is recognized as stable. Sedeh Village is located in the next level, and other villages have been identified as unstable with low satisfaction levels. In dimension of physical health, Miandeh has the highest level of satisfaction and villages of Bidzard, Gehrab and Abuzrabad were identified has the second level in this terms. Rahim Abad villages, Sedeh, Nasirabad and bishezard with low satisfaction levels are located at the last level. In relation to mental health, Miandeh villages, Rahim Abad village in Nasirabad district of Miandeh have been chosen as the healthiest. Sedeh villages, Gehrab and Bidzard were located in the middle in terms of satisfaction. In the dimension of economic health in villages of Miandeh, Rahim Abad Gehrab as the nearest have been identified to ideally phased options. The Nasirabad village is located at the interface between a weak and acceptable content. Four other villages (Bidzard, bishezard, sedeh and Abuzarabad) have been identified with weak economy in district villages.

**Keywords:** Fuzzy Topsis, Linguistic variables, Myandh Villages, Quality of life, Rural areas.

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