

## **Status Assessment and Prioritization of Indicators for Sustainable Development in Rural Areas (The Case of Central District of Boyer-Ahmad County)**

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### **Extended Abstract**

#### **Introduction**

The experience of development process in developed countries revealed that rural development is a basic requirement for national development and it should be considered and given high priority. Accordingly, in Iran also the government in recent years paid more attention to rural development. In this regard, different methods and approaches were implemented due to social and economic development of rural regions. A large number of these strategies and industrial projects focus on developing of rural areas. Determining basic needs of development and prioritizing them in rural areas is an essential for sustainable rural development program. In this regard, status assessment and prioritization of indicators for sustainable development in rural areas is a powerful instrument for identifying and increasing enough knowledge about the areas and managing of their development. Accordingly in recent years, considerable attention in geographical studied, especially in management of rural development has been devoted to the development ranking methods. Therefore, the thesis aims at assessing and ranking indicators for sustainable development in rural areas in the Central district of Boyer-Ahmad county, Iran.

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### Methodology

For this purpose, a descriptive-analytical method with the aid of a comparative approach was used. Statistical population of the study was the villages in the county with 20 or more households (89 villages). In each village, 10 percent of the households were randomly selected as a sample of the study from the population. Accordingly, 566 rural households were determined and selected as a sample using Lin sample size table. To collect the data, a questionnaire was used. To collect the data, a questionnaire was used. For determining the content validity of the questionnaire, a factor analysis and for internal consistency reliability, Cronbach's alpha was used. The KMO (0.504-0.848) and Cronbach's alpha coefficient (0.561-0.955) indicated the optimality of the questionnaire. For analyzing the data, the descriptive and inferential statistics such as Mean, Standard Deviation (SD), Coefficient of Variation, Gini Coefficient, Percent changes, Person, Spearman, and Kendal correlation coefficients, Kruskal wallis, and Analysis of Variance (ANOVA) were implemented. Furthermore, Matlab 7.10 and SPSS<sub>20</sub> were used for assessing and prioritizing indicators for sustainable development in rural areas of Central district of Boyer-Ahmad county, Iran. In order to model development of rural areas in the central district of Boyer-Ahmad county, organism approach (structured) to select criteria was used. Then, the Fuzzy theory was used to operating criteria. Findings revealed that the VIKOR model with absolute approach was powerful and recommended.

### Findings

The finding showed that 32% of indicators for sustainable rural development were in the sustainable, 32 % in moderate and 36 % in unsustainable status. The findings showed that Sarabtaveh, Deh Bare- Aftab Olia, and Tangary villages with regard to 51 criteria by 0.635, 0.608, and 0.579 scores, respectively were developing villages and Gavbarg, Cheshmeh Tabarghoo, Tal-Gahi with 0.182, 0.201, and 0.233 scores respectively were non-developed villages. Also, there wasn't any village in level of

completely undeveloped, developed and completely developed. The findings indicated the undesirable rural development (with mean 0.387 and range from 0 to 1) in the region. Also, approximately half of villages (46.1 percent) with 21.46 percent of the population of the rural region were undeveloped villages. In addition, 69.35 percent of population in villages of the study was in developing stage. Also, approximately half of villages (48.31 percent) with 32.94 percent of the population of the rural region were undeveloped villages. Furthermore, the villages were investigated in terms of supportive, human and environmental dimensions. Findings showed that although there weren't significant differences between the three dimensions, but human and environmental dimensions have the best and worst condition, respectively. With consider presenting condition of the villages, it is confirmed that there was significant distance between present and desirable situation. Also, Arc-GIS 9.3 software was very useful for modeling rural development in villages of Central district of Boyer-Ahmad County. The findings of Coefficient of Variation and Gini Coefficient revealed that the unbalance and inequity of development in the study area.

#### **Discussion & conclusion**

This inequity was highly significant in consumption of fossil fuels and wood, sewage disposal network, waste collection network, construction of streets and alleys, and performance of Village Assistance Bureau (VAB) criteria. Findings of investigation of criticality of the criteria revealed that the consumption of fossil fuels and wood, sewage disposal network, construction of streets and alleys, waste collection network, the ratio of active workers to population, housing, income satisfaction, and job satisfaction, respectively were in high risk. Finally, findings indicated that among the variables postulated in the model to explain rural development, "performance of Village Assistance Bureau", "social capital", and "village population" had a significant influence on rural development.

**Keywords:** Rural development, Organism approach, Fuzzy theory, AHP, MADM .

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