Quantitative Analysis of Rural Development in Marvdasht using Morris model and Coefficient of Variation

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1. INTRODUCTION

To identify and measure environmental capabilities, available services, and development of settlement site especially for rural ones, are the initial steps in the process of planning and development of an area. However, irrational and unfair allocation of resources to some specific areas and depriving other areas of such facilities lead to regional disparities in terms of economic and social development. The huge gap between development of rural and urban areas in the third world countries is a representative example of such a problem.

In this study, Marvdasht County with a population of about 297,399 people and 246 villages in 2011 was one of the largest producers of dairy and agricultural products. In addition to this population, there are migrating nomads who enter the region every year in the spring and summer, and make use of the services in the villages of the region. Concentration of services and facilities is not the same in all villages of this county.

This kind of imbalance in the distribution of services will eventually lead to rural-urban migration of the villagers who have less access to facilities and services. Consequently, the increase in migration leads to a fall in agricultural production level. Therefore, investigation of service levels and rural development in the study area can make way for preventing such problems. Thus, the aim of this study was to measure, rank and analyze the development of the villages in Marvdasht County, with an emphasis on 14 Dehestans (in indices of infrastructure, communications, education, health and medical care, administrative and police services) so that the study results might be of benefit to relevant policy makers and planners.

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2. METHODOLOGY

This study was carried out in a descriptive-analytical method. The data were collected by library research and fieldworks. The population consists of 14 Dehestans with 264 inhabited rural settlements in 4 Districts of Marvdasht County. In order to determine the level of development in rural areas of Marvdasht, and considering the importance of indices or limited access to them, 30 variables were selected with regard to indices of infrastructure, education, health and medical care, culture, agriculture and administrative services. Morris model was employed for data analysis and determining the level of development in rural areas; coefficient of variation (CV) has been used to determine the pattern of distribution of facilities and services; we used Geographic Information System (GIS) to get the maps needed for the analysis of the levels in the Dehestans of the study area.

3. DISCUSSION

The study results show that development coefficient of the Dehestans varied between 14.48 and 60.67. To the extent that rural areas in Dehestan of Ramgerd II, with a development coefficient of 60.67 and Southern Kamfirooz Dehestan with a development coefficient of 14.48 respectively were the most and the least developed rural areas in Marvdasht County. Accordingly, the ranking of the Dehestans of Marvdasht County based on their development coefficients also show that the coefficient of education index was varying between 16 and 60, the agricultural index between 6.77 and 60, index of health and medical care between 2.71 and 67.95, infrastructural index between 2.17 and 46.32, cultural index between 3.45 and 65 and the administrative index between 0 and 100.

Based on the development coefficients, the Dehestans of Marvdasht County were divided into three categories: developed, developing and underdeveloped. As the study results show the majority of the Dehestans in Marvdasht are not in good conditions in terms of their development. To the extent that more than 10 Dehestans were categorized as underdeveloped and 3 Dehestans as developing; only one Dehestan was categorized as a developed one. The coefficient of variation (CV) of the indices showed that the index of infrastructure with a CV of 0.44 had the least amount of imbalance in the distribution of resources and services, and the index of administrative services with a CV of 1.02 had the highest imbalance in the distribution of resources and services among the other Dehestans of Marvdasht County.

4. CONCLUSION

The results show that rates of development in the Dehestans of the study area are different and unequal. Moreover, based on the coefficient of variation, among the indices of the study, the indices of infrastructure and administrative services respectively had the lowest and the highest variations in the imbalance among the Dehestans of Marvdasht. As a result, the Dehestans enjoying higher level of services and facilities, have higher development rate too. To achieve the objectives of rural development, it is necessary to make plans and use the environmental potentials in the rural areas. Given the high environmental potentials in the
In the rural areas of Marvdasht, it is suggested that a plan should be formulated to develop and fulfill the potentials of the area.

**Keywords:** Rural areas, Rural Development, Moris Model, Coefficient of variation, Marvdasht.

**References (in Persian)**

References (in English)