

# **Geographical Basis, the Instability of the Environment and Rural Settlements**

## **(Case study: city of Sanandaj)**

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### **Extended Abstract**

#### **Introduction**

Despite the suitability of climatic conditions in this region, comparing the other ones, the rural population in Kurdistan hardly reaches to 350 persons. It seems that development of the villages in this province is directly related to natural constraints. Although many factors cause instability of the natural environment, this study discusses only about the factors that contribute to wide-spread instability in the area of environmental studies. Among the major objectives of the modern geographical approach understands the impacting rules of space based on the cause and effect principles. In perceptual environment, human being as the main element of the geographical space grants validity to all of the natural and cultural phenomena. Therefore, the geography of environmental perception has been established in order to explain the spatial relationships among phenomena. In a geographical structure, all phenomena are carefully interacting. The rate of interaction is not the same for all regions. Therefore, sometimes a geographic factor (or a collection of factors) implies more impacts in comparison to the other ones; and this leads to the environmental instability.

#### **Methodology**

After the event method was applied in the present study, the topographical maps, GIS and questionnaire were used. Findings showed that the average height of the villages was 1650 m. from the sea level and freezing duration was more than 4 months which caused some problems regarding the economic activities, energy and communications.

#### **Results**

The present research is in line with the environmental perception and reveals how a physical environment affects the behavior and functions of men in creating an instable environment. Kurdistan province locates on the high Zagros zone at west of Iran. More than 82% of the area is mountainous. This feature makes Kurdistan province distinguished among all of the other Iranian provinces. Although it has created some barriers for human settlements too. Findings show that the urban population of Sanandaj has been three folded during the last three decades. It seems that rural migration in Kurdistan province is mainly because of its natural limitations. The most impacting natural factors on the average decline rate of rural population includes: semi dry climate, steep slopes, and heights from the sea level and ragged surface which all have caused limitations for delivering necessary services to the high rural areas. The main reasons for migration in rural areas outlined in the following cases:

- 1 - Arable land is limited, and therefore dry land farming is possible in less steep slopes;
- 2- Expansion of public facilities and services in the vertical and horizontal surfaces requires a large expenditure.
- 3 – The costs communication network development and installation are often much higher in areas of steep, comparing flat areas.

Thus, rural residents are forced to leave their villages in hope of finding better lives in fringe areas of larger cities. Also, 49% are quite uneven, 30% are rather uneven and just 21% of the area are even.

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In case of population density, 12.8% of population resides at slopes less than 5 percent, 45.4% at slopes between 5 and 10 per cent, 17.1% at slopes between 10 and 15 percent, 12.5% at slopes between 15 and 20 percent and 11.8% at slopes more than 20 percent. Reviews of population growth rate, which is affected by migration, show that rural population growth rate during 1981-1991 equals to -0.15 %. This figure for the whole country was 0.28 %. During 1991-2001 the trend was -0.44 % for country and -0.92 % for Kurdistan province. It means that the population decline in Kurdistan has been as twice of the country. Findings also show that there is no coordination between rural residential system in Kurdistan and requirements of modern changes and developments. Analysis of population studies with sustainable and unsustainable rural settlements of the province directly related to the natural foundations such as climate, elevation, slope, land, etc.

### **Conclusion**

The phenomenon of rural migration in Kurdistan has its origins in the socio-economic problems as well as the natural ones. Natural factors can also be effective in accelerating or planning restrictions and they can change the texture of a geographical environment. But, physical factors are capable to accelerate or to impede the developmental planning or changing a spatial texture of a geographical environment. However, not only decreasing the rates of rural migrations is possible, but also the economic and other activities of the areas can be renewed, if scientific and logic plans be applied for educating and participating of peoples. Also, some other plans such as TOBA plan, animal husbandry, bees' production, and tracing plantation can help the process of rural development. In addition, controlling the seasonal and permanent waters which are used for plants or industrial fishing can be considered as attempts for preparation of Kurdistan development, apart from its beautiful natural and cultural landscapes. Rural tourism can be expanded to make a better rural environment.

**Keywords:** Environmental Constraints, Instability, Migration, Rural, Sanandaj Township.