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## **Analysis of Effectiveness of Climatic Variation on Snow Depth (Case Study: Koohrang)**

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### **Abstract**

Water resources are of the most important factors shaping the organization of geographical space in Iran. Water resources distribution from height of more than 3500m, present temporary snow line. Koohrang region is an important basin of Iran. In this study we used climatic data and snow depth in a 20 year period for Koohrang station in 6483\*13 and 84279 cells. Geo-statistical, correlation, multiple regression and factor analysis. Were used the negative correlation with average daily temperature for dry and wet bulb temperature on 9 morning are -0.647,-0.640, -0.652 respectively (maximum correlation), and there is the maximum positive correlation with relative humidity on 9 a. m about 0.544. The amount of these climatic elements have a positive trend with the daylight increased (from 2. 08 on 6 A. M to 3. 82 on 12 A. M and to 6. 62 on 18 p. m). The Eigen value amount is 10. 608 and interpretation of 75% variance shows depth. According to calculated Z in Man-Kendal test, a positive trend of annual air temperature in the region exist. Therefor increase in snow melt and decrease of precipitation in the solid form and water resources limitation are the sequences of air temperature increase.

**Keywords:** Climate Elements, Height Snow, Eigen Value, Koohrang, Temperature Increase,

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