



Research Paper

## Regional spatio-temporal growth and instability of fertilizer consumption in Gujarat state

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**ABSTRACT :** The present study was undertaken with a view to assess the growth in fertilizer consumption and instability by using district wise fertilizer consumption data for the period 1960-61 to 2009-10 and analyzed by exponential growth function. During the Period-I, IV and VI, the consumption of N fertilizer significantly increased in all the regions of Gujarat state. The consumption of P fertilizer significantly increased in all the regions along with Gujarat as a whole during Period-I. For whole period, the consumption of P increased significantly in all the regions. During the Period-I, the consumption of K fertilizer was not reported in any region of Gujarat state. During Period-IV, the consumption of K increased positively in all regions except Saurashtra region. For whole period, consumption of K increased significantly in all the regions along with Gujarat as a whole except North Gujarat. The consumption of NPK fertilizer significantly increased in all the regions of Gujarat state along with Gujarat as a whole during Period-I. During Period-III, IV and V, the consumption of NPK increased significantly in all the regions except, Saurashtra region. During whole period, consumption of NPK increased significantly in all the regions. The lowest instability index for N in all the periods were found in South Gujarat region except Period-I. Thus, the trend and instability of different fertilizer consumption over period of time in all the regions of Gujarat showed greater variability.

**KEY WORDS :** Growth rate, Instability, Fertilizer consumption

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