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## Existing background noise distribution based on land use pattern

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The background noise level is defined as the underlying level of noise present in an environment where all unusual extraneous noise is removed. Background noise level is measured using  $LA_{90,15min}$  parameter with the unit of decibel-dB(A), where all unusual and additional noise is removed from the detected sound pressure level. The objective of the current research was to investigate and analyse spatial variations in background noise with respect to land use pattern of selected locations. Twenty-four hours background noise level data gathered from selected locations in Sri Lanka were used to compare the background noise distributions. While locations placed in urbanized areas show higher background noise levels, non - urbanized residential areas with a green environment produce less background noise. Weak positive relationship between average  $LA_{90,15min}$  value and the population of the related Gramaniladari division proves that the population could affect to the background noise levels.

**Keywords:** background noise, land use pattern,  $LA_{90,15min}$ , Grama niladari division

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