

EFFECT OF ANTHROPOGENIC DISTURBANCE ON THE FLORISTIC COMPOSITION OF RAINFOREST ECOSYSTEM OF SOUTHERN NIGERIA

NDAKARA, O. E.

*Department of Geography and Regional Planning, Delta State University, P.M.B.1 Abraka,
Delta State, Nigeria.*

ABSTRACT

*The original contiguous and luxuriant rainforest in Southern Nigeria has been much degraded owing to different anthropogenic disturbances which include oil exploration; the resultant effects being lost of components and proper functioning of the ecosystem. This study therefore examined the effects of anthropogenic disturbances on flora composition within the oil producing area of Southern Nigeria. Vegetation floristic features of woody tree species were investigated for 15 degraded forests and 15 adjoining rainforest (control) plots. The size of each control plot was adopted for the degraded forest areas from which data were collected for the year 2004 and 2014, so as to determine the rate of forest disappearance and woody tree species loss. Data collected were subjected to both descriptive and inferential statistical tests, as well as Simpson's index of species diversity. The population of trees varied significantly ($p < 0.05$) between the degraded and control forest ecosystems. Population of trees and forest size correlated positively ($r = 0.96$ and $r = 0.84$) within the degraded forest, and ($r = 0.96$ and $r = 0.97$) in the control forest in 2004 and 2014 respectively. *Piptadeniastrum africanum* and *Anthonotha macrophylla* were dominant in the control plots while *Elaeis guineensis* dominated in the degraded forests. Forest areas exposed to oil exploration activities experienced higher rate of degradation thereby leading to reduced forest size, tree populations and tree species diversity. Integrated environmental management is recommended to prevent forest disappearance from the region.*

Keywords: Anthropogenic disturbance, degradation, floristic composition, rainforest ecosystem, Southern Nigeria.