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AN OVERVIEW STUDY OF CARBON FOOTPRINT

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ABSTRACT: Greenhouse gas emissions are an important cause of climate change in the universe. In an effort to measure and reduce emissions on the campus of Navsari Agricultural University, Gujarat, there is a need to calculate carbon footprints to ascertain how much campus activity contributes to emissions. Universities can reduce the amount of carbon by dynamically producing on campus and evaluating the surrounding landscape. The study was carried out in three regions as per the Carbon Footprint protocol. The scope of the study includes clean water activities in one, electricity usage in the second and vehicles operating on campus, wastewater and solid waste activities in the third. Carbon footprint emissions are calculated based on the research and research of the International Panel on Climate Change. The findings obtained in the study in which CO_2, CH_4 and N_2O have been taken as Ton CO_2-eq. Under the Navsari University campus carbon footprint generated 14,310.26 ton CO_2-eg during the study. The highest carbon footprint came from electricity and transportation activities at 12120.98 ton CO_2-eq and 1298.78 ton CO_2-eq respectively. All types of planning to reduce carbon footprint, so that emissions are reduced, conservation of resources, only one bus service in the campus, use of bicycling and less use of air conditioners in the campus, etc. as well as plantation should be in maximum area.

Keywords: *ArcGIS software, carbon footprint, electricity, greenhouse gas emission, IPCC*

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INTRODUCTION

A carbon footprint is the total amount of greenhouse gases (including carbon dioxide and methane) that are generated by our actions. The average carbon footprint for a person in the United States is 16 tons, one of the highest rates in the world. Globally, the average carbon footprint is closer to 4 tons. To have the best chance of avoiding a 2ºC rise in global temperatures, the average global carbon footprint per year needs to drop to under 2 tons by 2050. Lowering individual carbon footprints from 16 tons to 2 tons doesn't happen overnight. By making small changes to our actions, like eating less meat, taking fewer connecting flights and line drying our clothes, we can start making a big difference(The Nature