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Carbon print biggest in east of City

The eastern part of the city consumes the most amount of electricity and hence stands first among the higher carbon emission areas of Bengaluru. An ongoing study by the Wetland and Energy Research Group of the Indian Institute of Science (IISc) on 'Carbon Footprint of Greater Bengaluru' shows that per capita electricity consumption and greenhouse gas emission is higher in K R Puram and Whitefield areas. While Bengaluru East emitted more carbon per se, the city's central areas showed high carbon emissions from vehicles. The higher carbon footprint is due to lack of planned development in the city, the study says. "The interest in 'carbon footprinting' is due to the growing public awareness of global warming and the consequent impending changes in the climate. Urban centres are the major CO2 emitting centres. As per recent estimates, the urban areas contributed 67% and 71%, respectively, to the global primary energy demand and energy-related CO2 emissions for the year 2006. This share has been forecast to further increase to 73% by 2015," explained Dr T.V. Ramachandra, who heads the research team. According to the research, the major drivers of the enhanced carbon footprint of Bengaluru are random concretisation and change in building structures, besides improper handling of sewage and solid waste. "The city has a tropical climate and in recent times has seen high-rise buildings with glass facades. This kind of architecture tends to conserve the heat (suitable for colder, temperate climate). But in hot climates it increases the use of air conditioners and fans and thus electricity consumption shoots up. This is evident from higher levels of electricity consumption — and consequent carbon emissions — in some of the wards in the city where glass buildings are common," Dr Ramachandra said. The research team points out that the existing solid waste treatment system in the city is not very effective, which is another contributor to greenhouse gases. The total MSW generated in Bengaluru city has increased from 650 tonnes/day in (1988) to 1,450 tonnes/day (2000) and today it is 3,500 tonnes/day. From 1988 to 2000 there is reasonable change in waste composition: fermentables, paper and plastic has increased by 7%, 3% and 0.2%, respectively. The researchers also said that the government needs to work on the waste and waste water management in the city so that the emission levels can be reduced. "The shortfall or lack of sewage treatment facilities has contaminated the majority of surface and ground water. These aquatic resources are now unfit for current as well as for future use and consequently pose critical health problems," said a research team member.