GEOINDICATORS FOR TROPICAL URBANISATION

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The urban population of the developing countries, which are located almost entirely within the tropics and subtropics, increased from 286 to 1515 million between 1950 and 1990. This figure is expected to reach 4 billion by 2025. Certain major cities (Mexico City, Bombay, Sao Paulo, etc.) are expected to grow to extremely large sizes. The major physical changes that occur with urbanisation can be summarised as changes in hydrology, geomorphology, climatology, vegetation, and air and water quality. The intensity and rapidity of such changes require a careful but urgent assessment of the modification of the environment. The tropical environment tends to magnify the urbanisation-related environmental impact. This paper presents a selection of geoindicators that could be used to measure such impacts. The geoindicators have been selected according to (1) their effectiveness in measuring the impact, and (2) the type of data which are required for their use. Shortage of data is a common problem for tropical cities. Two sets of geoindicators are discussed. The first is a standard set but the second deals with special conditions such as cities located on coastal plains and deltas, on steep slopes, and in extremely hazardous locations. The knowledge that in another 50 years at least half of the population of these countries will live in cities, adds urgency to this venture.