

An Odyssey to Sustainability: The Urban Archipelago of India

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Abstract : This study provides a snapshot of the sustainability of selected Indian cities by employing 70 indicators in four dimensions to develop an overall city sustainability index. In recent years, the concept of 'urban sustainability' has become prominent due to its complexity. Urban areas propel growth and at the same time poses a lot of ecological, social and infrastructural problems and risks. In case of developing countries, the high population density of and the continuous in-migration run the highest risk in natural and man-made disasters. These issues combined with the inability of policy makers in providing basic services makes the cities unsustainable. To assess whether any given policy is moving towards or against urban sustainability it is necessary to consider the relationships among its various dimensions. Hence, in recent years, while preparing the sustainability index, an integral approach involving indicators of different dimensions such as 'economic', 'environmental' and 'social' is being used. It is also important for urban planners, social analysts and other related institutions to identify and understand the relationships in this complex system. The objective of the paper is to develop a city performance index (CPI) to measure and evaluate the urban regions in terms of sustainable performances. The objectives include: i) Objective assessment of a city's performance, ii) setting achievable goals iii) prioritise relevant indicators for improvement, iv) learning from leaders, iv) assessment of the effectiveness of programmes that results in achieving high indicator values, v) Strengthening of stakeholder participation. Using the benchmark approach, a conceptual framework is developed for evaluating 25 Indian cities. We develop City Sustainability index (CSI) in order to rank cities according to their level of sustainability. The CSI is composed of four dimensions: Economic, Environment, Social, and Institutional. Each dimension is further composed of multiple indicators: (1) Economic that considers growth, access to electricity, and telephone availability; (2) environmental that includes waste water treatment, carbon emissions, (3) social that includes, equity, infant mortality, and 4) institutional that includes, voting share of population, urban regeneration policies. The CSI, consisting of four dimensions disaggregate into 12 categories and ultimately into 70 indicators. The data are obtained from public and non-governmental organizations, and also from city officials and experts. By ranking a sample of diverse cities on a set of specific dimensions the study can serve as a baseline of current conditions and a marker for referencing future results. The benchmarks and indices presented in the study provide a unique resource for the government and the city authorities to learn about the positive and negative attributes of a city and prepare plans for a sustainable urban development. As a result of our conceptual framework, the set of criteria we suggest is somewhat different to any already in the literature. The scope of our analysis is intended to be broad. Although illustrated with specific examples, it should be apparent that the principles identified are relevant to any monitoring that is used to inform decisions involving decision variables. These indicators are policy-relevant and, hence they are useful tool for decision-makers and researchers.

Keywords : benchmark, city, indicator, performance, sustainability

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