

Assessment of Post-Project Compliance of Environmental Impacts of Housing Projects in Lucknow City Using Leopold Interaction Matrix

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Abstract :

Cities in all parts of the world especially developing countries, face mounting challenges such as haphazard suburban development, spread of informal settlements, loss of open space, inadequate and aging infrastructure, water and air pollution, land degradation and traffic congestion. Most of these problems are related to poor urban planning, and such pattern of urban growth, if left unchecked, could result in substantial economic and environmental loss in future. There are several ongoing housing projects and new sub-urban colonies in Lucknow city, the capital of Uttar Pradesh, which are coming up in response to rising demands from public for their growing housing needs. All the new housing projects are expected to get environmental impact assessment done before the start of the project. However, there are apparent in-compliances with respect to regulatory standards. Therefore there is a need to assess the post-project compliance for such projects. This paper uses two dimensional Leopold interaction matrix using nine criteria to evaluate the overall impact of the housing projects on the environment. The impacts are measured on a magnitude scale of -10 to + 10 and a significance level of 1 to 10 by employing the scaling of attributes of environmental quality. The study reveals that some of the newly developed projects are characterized by severe shortage of basic services like potable water, well laid-out drainage system, sewerage network, sanitation facilities, electricity, roads and waste disposal system. These in turn result in numerous environmental and health impacts. The green cover and water bodies have been destroyed to give way to the rapidly developing urban settlements at the outskirts. The paper argues that through early planning before the start of the project as well as through all phases of the project's development, if environmental concerns are considered simultaneously with other technical and economic criteria, it may be possible to develop the housing projects with the protection of natural resources of that area.

Key Word :

Environmental Impact Assessment, Leopold interaction matrix, Housing Projects

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