

## Accepted Manuscript

Title: A Multi-Criteria Decision Making Approach for the Urban Renewal in Southern India

Authors: Vijaya Kumar Manupati, M. Ramkumar, Digjoy Samanta



PII: S2210-6707(18)30689-9  
DOI: <https://doi.org/10.1016/j.scs.2018.08.011>  
Reference: SCS 1209

To appear in:

Received date: 16-4-2018  
Revised date: 11-8-2018  
Accepted date: 12-8-2018

Please cite this article as: Manupati VK, Ramkumar M, Samanta D, A Multi-Criteria Decision Making Approach for the Urban Renewal in Southern India, *Sustainable Cities and Society* (2018), <https://doi.org/10.1016/j.scs.2018.08.011>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

# A Multi-Criteria Decision Making Approach for the Urban Renewal in Southern India

Vijaya Kumar Manupati<sup>a\*</sup>, M. Ramkumar<sup>b</sup>, Digjoy Samanta<sup>c</sup>

<sup>a</sup>*Department of Mechanical Engineering, NIT Warangal, Telangana., India;*

<sup>b</sup>*Chair of Logistics management, D-MTEC, ETH Zurich, Switzerland*

<sup>c</sup>*School of Mechanical Engineering, Vellore Institute of Technology, Vellore, India;*

\*Corresponding author. Email: manupativijay@gmail.com, manupati.vijay@nitw.ac.in

Email: digjoy.samanta@gmail.com, ramkumar@ethz.ch

Highlights:

- This paper proposes a framework for the ongoing urban renewal in India.
- The framework comprises of seven criteria, taken after an extensive literature review.
- The framework is validated by means of a case study based in Southern India.
- The evaluation of framework is done by using AHP
- Consequently the key influencing criteria for urban renewal is determined and hence, validated on the basis of the literature and records available

## Abstract

India is witnessing rapid urbanization due to increase in population in cities. This poses a major challenge to the urban renewal process. This paper aims to provide an urban renewal framework for the development of cities in India under the ambit of smart cities mission, an initiative by the Government of India. To guide practices related to management of urban areas and advance policy-making decisions and scientific inquiry in this domain, we identify 7 criteria and 27 sub-criteria mainly from the literature related to socio-technical perspectives. To handle the inter-relations among the identified criteria and sub-criteria, we propose a multi-criteria decision-making (MCDM) approach based on Decision Making Trial and Evaluation Laboratory based Analytic Network Process (DANP). Moreover, the effectiveness of the proposed methodology for urban renewal in South India is demonstrated with a real-life case study. Finally, we establish how the obtained results will help the policy makers to initiate urban renewal in southern India.

Keywords: Smart City; Multi-Criteria Decision Making; DANP

## 1. Introduction

Cities are important thrust areas for the economic and social development, as they focus much of the national economic activities like trade and commerce, governance, and transportation,

Download English Version:

<https://daneshyari.com/en/article/11001293>

Download Persian Version:

<https://daneshyari.com/article/11001293>

[Daneshyari.com](https://daneshyari.com)