

Role of Collaborative Cultural Model to Step on Cleaner Energy: A Case of Kathmandu City Core

Authors : Bindu Shrestha, Sudarshan R. Tiwari, Sushil B. Bajracharya

Abstract : Urban household cooking fuel choice is highly influenced by human behavior and energy culture parameters such as cognitive norms, material culture and practices. Although these parameters have a leading role in Kathmandu for cleaner households, they are not incorporated in the city's energy policy. This paper aims to identify trade-offs to transform resident behavior in cooking pattern towards cleaner technology from the questionnaire survey, observation, mapping, interview, and quantitative analysis. The analysis recommends implementing a Collaborative Cultural Model (CCM) for changing impact on the neighborhood from the policy level. The results showed that each household produces 439.56 kg of carbon emission each year and 20 percent used unclean technology due to low-income level. Residents who used liquefied petroleum gas (LPG) as their cooking fuel suffered from an energy crisis every year that has created fuel hoarding, which ultimately creates more energy demand and carbon exposure. In conclusion, the carbon emission can be reduced by improving the residents' energy consumption culture. It recommended the city to use holistic action of changing habits as soft power of collaboration in two-way participation approach within residents, private sectors, and government to change their energy culture and behavior in policy level.

Keywords : energy consumption pattern, collaborative cultural model, energy culture, fuel stacking

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