Queena K Qian, J Earth Sci Clim Change 2017, 8:9 (Suppl)
DOI: 10.4172/2157-7617-C1-032

Queena K Qian

Delft University of Technology, Netherlands

Green building promotion: Barriers and incentives from transaction costs perspective

Buildings are responsible for at least 40% of energy use in most countries. The absolute figure is rising fast, as construction booms and the rise of living standard. Urgent solution is needed to reduce buildings' energy use, thus addressing climate change. Reports show that with currently available technology, the energy-efficiency level could be increased by 30%, yet this does not happen. Affordability, i.e., higher capital investment is considered as the focal concern. The affordability study often ignores the hidden costs, i.e., transaction costs, including costs in the form of time delay, risk, stress due to the lack sufficient information, etc. The hidden costs to different stakeholders during the green building (GB) transaction are often ignored. Understanding these hidden transaction costs (TCs) helps appraise the costs and benefits of GB and policy effectiveness. The example of a gross floor area (GFA) concession scheme is used systematically to explore and understand the fundamental issues of TCs' typology and chronology in the GB development process. The GFA concession scheme is a popular incentive due to its indirect compensation to developers by allowing additional floor area without expenditure by government to implement GBs. A TCs' framework is used critically to review and evaluate the costs and benefits of the GFA concession scheme. Its particular implementation in both Hong Kong and Singapore is explored. Hong Kong is used as a case study, complemented with in-depth expert interviews on GFA concession in Hong Kong. The key contribution is to establish the parameters for estimating the optimum GFA bonus that could both motivate various stakeholders and minimize the negative impacts on the built environment in future.

Biography

Queena K Qian is tenure-tracked Assistant Professor at OTB Department, Faculty of Architecture and the Built Environment with the award of Delft Technology Fellowship (2014). She has also received Fulbright award (2010) and Endeavour Australia Cheung Kong Fellowship (2013). She has carried out research related to sustainable housing development including green building, building energy efficiency and energy retrofits, transaction costs analysis and age friendly urban development issues. She has published over 20 international referred journal papers and currently serves as an Editor and Board Member of *Journal of Housing and the Built Environment*.

k.qian@tudelft.nl

Notes: