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## An Analysis of the Benefit on Green Risk in Construction Projects

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### ABSTRACT

The Construction project green risks (CPGRs) refer to those threats to environment, energy sources and material re-sources during the entire life-cycle of a construction project. The emergent green risks in exploiting these resources are of varying concern to all. In this paper, evolutionary game is introduced to make about impacts of strategy choices from interactions among the choices developers, and between the choices developers and EPDs on project green risk. The results show that CPGRs will occur if either developers find that not managing CPGRs has a better payoff than opting for CPGR management, or if monitors impose only mild fines even when they find CPGRs within construction projects of developer's firms. The study also shows that there is a prohibitively expensive cost incurred by EPDs in monitoring CPGRs. Finally, some strategies are given for EPDs to help them make policies to regulate the strategies of developers.

### KEYWORDS

Construction Project Management, Green Risk, Evolutionary Game, Strategy Developer

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