



Putting a value on repair; a modular approach to assessing the costs of flood damage

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Flooding affects property owners across the globe and the cost of the damage for flooding runs into billions of dollars. Research into the financial impacts of flooding internationally has shown that economic damage curves exhibit common features for shallow slow rise floods dependent on flood depth and property type. However the impact of other features such as water velocity, debris content and flood duration have featured less in published research. Lack of appropriate data is a large obstacle to the furtherance of research into the complexities of flood features. Assessors attending after an event can judge depth more easily than other attributes of an event. For decision makers the cost effectiveness of installing measures to prevent flood damage will depend on realistic estimates of the impact of flooding. False confidence in flood defences and in flood mitigation measures can lead to disappointment when these measures are seen to fail. Subsequently apathy may prevail due to complete lack of faith in the ability to control flood damage.

It is suggested that a modular theoretical approach to flood damage estimation may provide more pertinent information for property owners than statistical analysis of average flood damage costs in the absence of flood feature data. An important element of this modular approach is to understand the appropriate damage repair strategy for a given damage scenario. Within the UK a recent publication regarding repair recommends standard treatments for common damage scenarios based on the experience of practitioners in damage repair. Attributing financial implications to a damage scenario is a relatively straightforward extension of this work. Relating the designed protection capabilities of mitigation strategies to the expected cost of damage repair might result in improved decisions by property owners and aid in interpretation of statistical findings from real flood events.

This paper looks at the findings from a survey of flood specialists and discusses the way in which experience from flood damage practitioners can be incorporated into the coast evaluation process.