[Strap][Environment?]

[Headline]Head above water

[Standfirst] International research found that surveyors might play a valuable role in providing flood risk mitigation advice. Faith Chan, Sara Wilkinson and Jessica Lamond highlight the findings

Although flood risk is increasing in many regions, there has been limited research on the perspectives of chartered surveyors in commercial property on assessing risk, risk valuation and advice. Commercial buildings need to be able to withstand flood events and continue operating, but in the light of climate change many may need to improve their resilience – meaning there is a growing role for building professionals in providing flood risk advice.

In a 2016 RICS Research Trust-funded project, an international team developed a better understanding of the current and future role of chartered surveyors in this respect in Asia Pacific, Europe and the USA. The study reviewed academic and grey literature (e.g. government reports, policy statements and conference proceedings) to understand different flood scenarios, insurance regimes and risk disclosure practices, and interviewed more than 70 experienced surveyors in five countries.

Surveyors' role

There is an important role for surveyors to play in providing impartial and professional advice on commercial properties at flood risk in all regions. Opportunities exist in a number of areas (see Table 1). However, there are barriers to be overcome in doing so, such as [a failure to? the need to?] regard this as specialised advice, the high cost of professional advice on flood risk, risk awareness among clients and building professionals, and synergy between building professionals. Some of these barriers appear particularly relevant in the Asia Pacific region, and are illustrated through case studies of Australia and China.

It's someone else's job

In Australia, interviewees recognised the value of chartered building surveyors in promoting resilient building design and management. For example, high-rise commercial buildings allow for implementation of facilities management and adaptation advice, which can include averting damage by relocating services above flood level and ensuring vital services are not located in areas prone to flood. Such advice would avoid the following incident described by one interviewee: "Head office flooded to the ceiling of the second floor and all our servers – not just for that office, believe it or not, but nationally – were in that basement. It was out of action for weeks."

They felt that surveyors need to understand the history of an area economically, geographically and physically when providing clients with property valuation, property management or building adaptation services. As the climate is changing, surveyors should be aware of potential scenarios in areas where they are giving advice and whether construction or design needs to consider future flood risks. Pre-emptive action should be recommended to reduce exposure to risk and flood damage.

Participants felt the demand for services was limited by lack of regulation, because although this exists in areas at risk of flooding in Australia, it is limited. In some places, surveyors have a regulatory role in new developments in flood zones. For example, the City of Gold Coast in Queensland requires that habitable floor levels are a minimum of 300mm above the designated flood level, and that licensed surveyors determine these. Surveyors have no regulatory role in existing buildings, however.

In Greater China[, which includes the People's Republic of China, Hong Kong and Macau Special Administrative Regions], surveyors are not required to consider flood hazards other than stormwater or surface water drainage conditions around infrastructure, which means checking for water seepage or leakage from pipes in the property. Most surveyors interviewed about flood risk management, were concerned with waterlogging issues, but did not particularly focus on fluvial or coastal floods. Their perceptions were that responsibility for managing flood risk lies with the municipal government. An interviewee stated that: "we cannot interfere in the drainage system of that street, as that is not our responsibility but the job for the municipal water bureau."

It's not my top priority

Perceptions of risk, and risk relative to other hazards, can make professionals reticent to engage with an issue. In China and Australia, despite recent flood incidents and growing risks, other hazards are perceived as more important. Low perception of risk by the commercial clients affects the demand for services.

Interviewees in China reflected that most commercial properties are located in city centres. The concerns [of the property's landlords/owners] are waterlogging and surface water flooding, and the properties are usually covered by bundled commercial property insurance packages, as noted: "most commercial and residential properties in Chinese cities are high-rise buildings ... [The developers and government] will not put developments into a high flood-risk areas … In my opinion, waterlogging will happen but the chance of large-scale flooding is quite scarce."

In China, built environment professionals and surveyors do not prioritise addressing and mitigating flood risk: "to be honest with you, I think the priority for hazard management of infrastructure should be fire or wind … in the region".

Low uptake of flood insurance

Insurers were seen as key stakeholders in mitigating flood risk, as they can encourage mitigation through terms of cover and advice claimants after a flood. However, where flood insurance is not readily available or widely adopted, this mechanism cannot have a large effect.

Insurance policymaking in Australia stemmed from that of UK companies, where early cover for domestic property included flood but did not define the term. From 1984, the Insurance Council of Australia definition of flood enabled partial, or fuller add-on, flood cover. After the 2011 Queensland floods, the federal government looked at mandatory flood insurance but did not legislate. As a result, the definition of flood remains contested and the lack of understanding of the distinction between flood and storm endures.

Respondents claimed that insurance cover varies from state to state, each having different risk profiles. Insurers in flood-prone areas often ask for mitigation measures or impose penalties for not adopting these. One commented: "Brisbane insurers are likely to be red hot on this, whereas in Sydney they wouldn't because they've not had a lot of flooding here."

Some owners chose not to have flood cover when they perceive the risk is very low, and where multiple properties are owned; others find that insurance costs may be prohibitive. A further view was that institutional bodies in the surveying profession should advocate for compulsory insurance in some flood-prone areas because these can become blighted when buildings remain unrepaired after flooding. Most agreed flood risk leads to increased premiums in areas at risk, and that commercial construction costs and project timelines increase.

In China, flood insurance is normally provided as part of a cover package. Therefore, owners and landlords or property management companies have to purchase property insurance. But bundled property insurance packages usually cover a limited set of flood-related issues, such as rainwater overflow or leakage at rooftop, stormwater drainage blockage or damage, including leakage, seepage from ceilings or walls by failure of pipes, and waterlogging. They don't usually cover fluvial, coastal or combined flooding unless the landlord or property owner requests or negotiates with private insurers.

One chartered building surveyor stated: "I understand the property insurance my clients purchase normally only covers the cost from waterlogging, including fixing the lifts or escalators after floods, or the floods from pipe leakages and seepages, … but [it does not] not cover severe fluvial and coastal floods." Flood risk insurance is not mandatory and many businesses choose not to cover additional risks.

Where next?

This study found increased involvement by built environment professionals, including surveyors, in providing flood risk advice for commercial property, which presents opportunities to reduce flood risk and increase support to business, communities and investors or landlords. The following recommendations identify opportunities and strategies that may be beneficial in these regions.

- Avoid professional silos and encourage greater collaboration among built environment professionals and other stakeholders.
- Improve access to flood risk information, which is lacking, for example, in China. This needs to be supported by development and provision of flood risk education, coordinated with municipal and provincial governments.
- Improve understanding of insurance options and processes in the commercial property market.
- Develop professional competencies that require greater understanding of hazard information and flood risk mitigation.

This is easier said than done. We suggest that built environment professional bodies consider providing improved standards and guidelines that, if supported by regulation, would encourage interest in motivating flood risk mitigation with stakeholders. Insurers, as another key stakeholder, could become more proactive in this regard. Finally, built environment professionals could be the bridge, providing professional knowledge to strengthen and develop legislation, regulation and suggestions to mitigate emerging flood risk for commercial and other properties in the region.

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Flood risk mitigation and commercial property advice: an international comparison

www.rics.org/floodrisk

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Table 1. Opportunities and barriers for surveyors in giving flood risk advice to commercial property clients

Country	Barriers	Opportunities
Australia	Lack of finance Lack of clients Lack of interest in mitigation Lack of knowledge Liability issues	Providing risk mitigation advice on location, lower vacancy rates and insurance discounts
China	Lack of understanding of risk Clients' lack of interest in mitigation Lack of knowledge	Providing mitigation advice on unrecognised hazards of flooding
Germany	Lack of investment in surveyors' training Lack of finance for mitigation Lack of expertise and high cost of advice	Providing mitigation advice on valuation and insurance
UK	Lack of expertise Lack of training Lack of coordination among building professionals	Providing advice on risk mitigation, insurance, valuation and investment
USA	Lack of opportunity to provide mitigation advice Lack of coordination among business professionals Lack of communication with clients	Providing mitigation advice with certificate of elevation