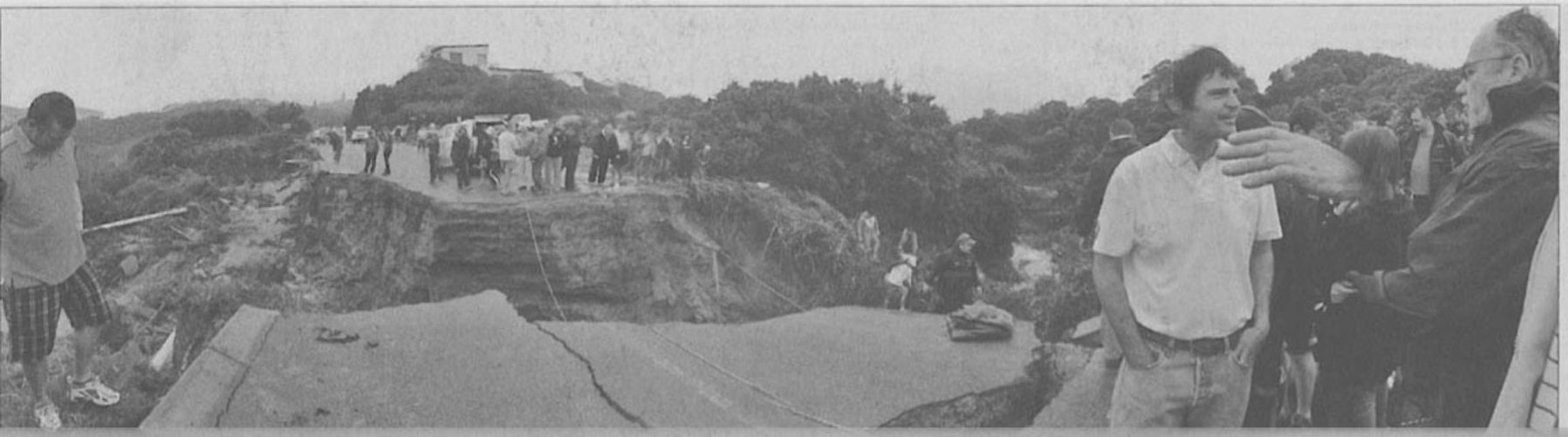

ROAD TO RUIN: Since 2005, floods have cost the Garden Route some $300 million in economic losses, of which the insurance industry's contribution has been upwards of $90m, says the writer.

CLIMATE CHANGE

Heavy weather for insurers

Tom Herbstein

THE RECENT summer flooding across swathes of the northern and eastern parts of South Africa is a timely reminder of the damage climate change continues to inflict upon local communities. However, the insurance industry is also beginning to feel the pinch, as it bears the brunt of many of the reconstruction costs associated with flooding.

Natural disasters cost the global insurance industry $105 billion in 2011, second only to the $123bn paid out in the wake of hurricanes Katrina and Rita in 2005. In fact, five of the costliest years on record have all occurred over the past decade, leading to climate change now being ranked as one of the primary threats facing the insurance industry this century.

Part of this net rise in losses can be attributed to inflation, an overall growth in the global insurance industry and the tendency for populations to gravitate towards higher-risk areas such as flood plains and coastal zones. However, the surge in climate-related losses also suggests that the past is not proving as indicative of the future as it once was. This disjuncture between past risk and future probabilities is beginning to question the effectiveness of actuarial analysis as a tool for predicting risk, a core feature used by insurers in managing their exposure.

The industry's response has largely been to invest substantially in developing predictive models that determine how environmental changes are likely to affect insured assets in the future. This has allowed insurers to manage their exposure to loss, either by transferring risk back to the clients through increased premiums and excesses, or simply excluding the highest-risk assets altogether.

The debate on how insurers might better manage their exposure to climate change dates back to 1992 when Jeremy Leggett, then head of Greenpeace, proposed that the industry use its extensive invested assets (today valued in excess of $23 trillion) strategically to disinvest from the most greenhouse gas-intensive industries and in turn support the growth of new, greener economies. Leggett argued that any short-term investment losses due to withdrawal from the markets would be more than accounted for by a reduction in climate-related claims over the long term.

Yet the challenge for many insurers with Leggett's proposal was in linking the impact of specific climate risks directly to individual sources of greenhouse gases (GHGs). The gap is simply too vast. This makes engagement in GHG mitigation hard to justify when the short-term loss of investment profits, now a crucial feature of insurers' profit margin, is so high.

This challenge led to the establishment of a multidisciplinary partnership of South African researchers, including the country's largest short-term insurer, the Santam Group, to explore the connection between climate risk and insured assets.The project focused on the Garden Route where, since 2005, floods have cost the area some $300 million in total economic losses, of which the insurance industry's contribution has been upwards of $90m.

The project's findings highlighted how climate risk and its impact on insured assets is in fact a combination of both changes to the regional climate systems and physical features within the local environment. Increased flood losses, for example, occur not just as a result of increasingly intense rainfall, but as the water flows across the landscape, it is often shaped by other features such as land-surface hardening (resulting in increased surface run-off), agricultural practices and deforestation (affecting absorption rates) and even the way local stormwater drains are maintained. Climate models completed as part of the project highlight how these physical features of the landscape often contribute over half of the eventual impact a climate risk has on insured assets.

The research also highlighted the role played by other stakeholders in shaping this landscape. These include, but are certainly not limited to, local government, large landowners, the agricultural industry and property developers. Their multifarious activities contribute to compounding insured losses. Professor Clifford Shearing of the University of Cape Town, one of the project directors, explains that "insurance has more influence than it thinks it has over the activities of these institutions". By engaging these stakeholders more proactively as risk managers, he says, insurers might help contribute to a reduction in the risk exposure faced by local communities and account for the inherent weaknesses in risk assessment insurers are facing in such a rapidly changing world.

The general lesson here – and it certainly seems applicable to the UK – is that approaching the management of climate-risk directly, in the broader local environment in which insurers are active, may help mitigate risk, increase the resilience of the broader community and, by default, reduce insured losses. While the Garden Route has its own unique features, the concept of managing the physical drivers of climate risk is universally applicable.

> Insurers have little choice but to explore novel ways to manage their exposure to risk

Ian Kirk, CEO of Santam, has likened this response to a form of shared value that seeks to maximise the use of all available economic and social responses in ways that will benefit society, business and government alike in facing mutual challenges. The obvious partner here is the government, itself faced with the imperative of reducing its burden as the insurer of last resort. The government shares similar objectives to insurers in seeking to lower overall levels of vulnerability and protect exposed communities. Space for mutually beneficial, collaborative partnerships should be both possible and viable.

An example of such collaboration occurred in recent years in the UK when the Association of British Insurers agreed to guarantee flood cover in areas vulnerable to flood loss, on the understanding that the government would in turn invest in improved flood defences.

It was a win-win: the industry retained market exposure, while the government avoided having to support flood-affected homeowners. Although both parties appear unlikely to renew their "Statement of Principles", it remains an excellent example of the sort of collaborative partnerships insurers could begin to engage in more frequently.

As the effect of climate change intensifies, so insurers and government regulators may have little choice but to explore novel ways to manage their exposure to risk. But as an industry, insurance will need to overcome the operational challenges it faces. It will have to redefine the notion of risk management, not just as a process of managing its own exposure to climate-related losses, via risk assessment, but also become more proactive in engaging other organisations and institutions that influence climate risk in the local environments in which it operates.

● *Herbstein is a PhD student and Senior Research Co-ordinator, Environmental Security Programme, at the Centre of Criminology, UCT. His work focuses on regulation and governance issues relating to insurance, finance and climate change.*

DIVIDE: The disjuncture between past risk and future probabilities questions the effectiveness of predicting risk, a tool used by insurers in managing their exposure.