



Association Internationale de Droit des Assurances
International Insurance Law Association
Associazione Internazionale di Diritto delle Assicurazioni
Internationale Vereinigung Versicherungsrecht
Asociacion Internacional de Derecho de Seguros

**MEETING OF THE
16th AIDA CLIMATE & CATASTROPHIC EVENTS WORKING PARTY**

**08:30HRS AND 10:30HRS - WEDNESDAY 18 OCTOBER 2017
ASIA-PACIFIC INSURANCE CONFERENCE (APIC17)
RAFFLES CITY CONVENTION CENTRE – RAFFLES CITY – SINGAPORE**

MINUTES OF MEETING

1. Welcome and Chairman's Introduction - Tim Hardy (UK)

- 1.1** Customary thanks were extended to the APIC17 organisers and sponsors alike for providing the facilities for the meeting. Also, thanks to those CCEWP members who had sent apologies for absence but still provided materials of benefit to all.

- 1.2** A register was circulated to capture up to date email details of both new and returning members. Materials from the day's meeting would be posted on the CCEWP page of the AIDA website. CCEWP mailings serve to invite suggestions for future meeting topics and initiatives. A new AIDA website was being commissioned. A CCEWP task force may need to be established to help ensure our back catalogue of materials and future work product were captured. Also, to be made as easily accessible as possible.

- 1.3** The Chairman outlined the agenda for the meeting. A presentation on the most recent "family" of hurricanes hitting the Caribbean and US and a second upon the legacy of the Canterbury earthquakes of 2010 in New Zealand (in the context of another quake hitting Wellington in this last year) would be separated by a short update on cat bonds. All present were reminded that this was a discussion forum and not a lecture hall and so questions and contributions were welcomed at any stage.

- 1.4** Before turning to the meeting agenda a few further comments. First, the change of name of the WP from Climate Change to Climate & Catastrophic Events WP and our concentration today on hurricanes and earthquakes was in no way symbolic of any relegation of the significance of the phenomenon of Climate Change to the WP's work. To us Climate Change was *not* the "elephant in the room" if still a "white elephant": something troublesome, expensive to maintain or difficult to dispose of. That awareness informed every consideration we pay to natural disasters, often exacerbated by man-made intervention.
- 1.5** A recent PwC-supported CSFI (Centre for Study of Financial Innovation) Survey – "*Insurance Banana Skins 2017*" obtained nearly 1,000 responses from practitioners, regulators and observers. Climate Change (along with natural catastrophe and pollution) was missing from the top twenty perceived risks. It was deemed unlike other contenders: essentially an "underwriting" risk, one for which the industry was there to insure. At the same time most respondents considered it one far greater and more far-reaching than any other, extending well beyond mere underwriting parameter concerns.
- 1.6** Finally, given that the meeting was taking place in Singapore it was timely and apposite to draw attention to the Report published in the previous week by ESCAP (the UN Economic & Social Commission for Asia) entitled the *Asia-Pacific Disaster Report 2017*. Over its 184 pages it provides an invaluable overview of the past and projected human and economic cost of disasters in a time of Climate Change: action plans for resilience in agriculture; resilience building for cities and economies; also, identification of the value of early warning systems and disaster procedures, increased risk education, dangers of low levels of insurance and the need for innovative finance models.
- 1.7** Thanks were also expressed to Maria Kavanagh (Argentina) and her MERCOSUR team for again producing an interesting and timely Report for the meeting. This time they were considering the advances made in their part of South America to develop parametric insurance models and data analysis to improve agricultural sector resilience. They then compared these with the example of an Asia-Pacific country, Papua New Guinea. 67% of its workforce were dependent on the country's agricultural sector which faced not just natural hazards (earthquakes, tsunamis etc) but also exacerbated extreme weather cycles (El Nino, cyclones etc).
- 1.8** The attention of everyone was also drawn to three presentations in the APIC17 plenary sessions of interest to the CCEWP. On Thursday there were sessions on catastrophe modelling and catastrophe aggregation. On Friday was a session on "The Protection Gap": the extent of underinsurance in the Asia-Pacific region and how best to tackle it.

2. FIRST PRESENTATION: Insurance in Times of Climate Change - Recent Cyclonic Events in the USA - RICHARD K. TRAUB - Traub Lieberman Straus & Shrewsberry LLP (United States)

- 2.1** Four hurricanes (three of them major events) in the US (and the Caribbean) over recent weeks again raised questions about the extent to which the cause of them - or their particular severity - is attributable in whole or in part to the raised level of CO2 emissions in the atmosphere. Did cool weather contribute? Did CO2 emissions and/or ocean temperatures change the path of Irma towards Cuba?
- 2.2** To consider whether increased levels of CO2 have helped to trigger increased hurricane activity one needs to review the long wider history of global tropical cyclone activity. This, in fact, has fallen. Meanwhile, some argue due account must also be taken of the fact that oceans (which hold 1,000 times the energy held in the atmosphere) experience extended periods of warming and cooling.
- 2.3** Is it significant that as the Northern Ice Cap recedes the Southern Ice hit a record high in its 2015 cold season? Then again, as the Pacific Ocean turned to its colder cycle, the western part of the cap around Alaska experienced growth. Will some Climate Change denialists be proved correct when predicting that the Northern Ice Cap will recover once the current warm cycle of the Atlantic ends, in about 10 years? Or admit they are wrong if it does not?
- 2.4** A long debate has arisen between those who claim there has been a pause in global warming and those, such as the NOAA (the National Oceanic and Atmospheric Administration), who say this has never stalled, simply masked by incomplete data. If the temperature rate of increase during the last half of the 20th century was previously thought identical to that of the second half of the 21st century, global warming between 1998-2012 is now seen as more than double that of previous estimates. (CO2 levels are now 40% higher than the highest levels over the past 800,000 years. That burning fossil fuels is the cause is beyond doubt owing to the unique fingerprint the chemical composition provides. Also, deforestation to a lesser degree compounds the problem by reducing absorption of CO2.)
- 2.5** Within the last 10 years, thousands of new weather stations have been built in those under-reported areas on land. A huge network of buoys has been deployed in the oceans and seas to measure sea surface temperatures. What is more concerning is that these measurements do not factor in what has happened in the Arctic (at least in parts of it), where temperatures have increased rapidly in recent decades but where there are, again, a limited number of weather-recording stations.
- 2.6** What's to be done? A Top 10 list might read: Limit power plant production; prioritise China's pollution problem; expand carbon markets around the world; unleash clean energy in the US; end fossil fuel subsidies; slow deforestation; stop methane leaks; cut deadly soot; phase out super polluting hydrofluorocarbons (HFCs); and reduce fertilizer production.
- 2.7** In terms of liability for causing Climate Change the US Courts have mostly ruled that the issue is for the legislature to decide, not the courts. There is federal common law and provisions to observe like the Clean Air Act, but no common law claim of nuisance. There is insurance coverage for injury and liability associated with, if not, resulting from, Climate Change. More extreme events will increase insured claims being met (estimates for extreme events to rise by 40% by end of the decade).

2.8 As for the priorities for the insurance industry it is uniquely placed to understand and educate climate risk mitigation in a similar way to the historic role played in the management of earthquake risk. The industry's response has already seen a series of loss prevention solutions being advanced, such as green building and sustainable driving practices, but it is far from clear that the industry is fundamentally evaluating how it underwrites such business, even if improved data capture is refining rating and the writing of cover and assessing terms.

2.9 Meanwhile, with 2016 being regarded as probably the hottest year ever recorded, with the highest CO2 levels recorded, with the frequency and severity of extreme events seemingly on an irreversible increase and long-term environmental impacts being observed, the challenges faced are obvious.

3. SECOND PRESENTATION: Update on Catastrophe Bond Issuances – PAOLO RAINELLI - Assistant Professor - Department of Management & Production Engineering, Politecnico di Torino (ITALY)

3.1 Issuances: In the 12-month period between June 2016 and June 2017, a record \$11.3 billion of new cat bonds were issued. Outstanding cat bonds combined with other alternative insurance-linked securities, stand in the aggregate at \$90 billion about 15% of the capital within the global reinsurance industry (data from Aon Securities)

3.2 Recent events and market test: In August and September 2017 certain areas of North America (covered by cat bonds) suffered three of their worst natural disasters in a decade (i.e. Harvey, Irma and the 8.1 magnitude earthquake in Mexico). Important test for cat bond market and for investor appetite in this kind of securities. Evidence shows that these events have affected only a few of the outstanding cat bonds (but many indemnity trigger and industry loss trigger bonds are still being monitored and remain at risk of triggering).

3.3 Risk repricing: Cat bond fund managers have adjusted upwards their expectations of yields for their cat bond funds, both in terms of the anticipated yield to maturity and the yields of future issuances. Higher interest rates will arguably attract even more investors in the cat bond market.

4. THIRD PRESENTATION: New Zealand – Land of the Long White (Dust) Cloud – RICHARD JOHNSTONE – Barrister, Left Bank Chambers, Christchurch (NEW ZEALAND)

4.1 The number, scale and extent of damage caused by the earthquakes in New Zealand since 2010 provide a clear indication of the severity of the phenomenon. On 4.9.10 the Darfield earthquake measured 7.1; on 22.2.11 the Port Hills earthquake measured 6.3. That 14,532 earthquakes occurred in the country in 2016 is not unusual. Two in the first half of the year were of note: one on 14.2.16 of 5.7 magnitude; another on 11.5.16 of 4.7 magnitude.

4.2 New Zealand straddles the boundary of two slowly moving tectonic plates. In the South Island plate slip results in strike-slip movement meaning that rupture is nearly vertical as one plate passes the other. The seriousness of the damage to Christchurch saw the business district

cordoned off for 30 months; 1,200 buildings demolished; and c.70k people leaving the city while emergency powers took effect.

- 4.3** A Royal Commission established reasons for building failures. Technical guidelines were provided for repair/rebuilding. New cadastral principles were established to determine new boundary lines where these had moved. Over 6k properties were cleared in a residential “red” zone.
- 4.4** By 2Q2017 \$20.1bn paid out by insurers upon domestic and commercial claims, totalling approx. 170k. Over 90% of all over cap property claims settled. In some categories 99%. A series of significant events have affected or helped to determine important insurance coverage issues. These included the bailout and sale or rescue of some insurers, provision for reinsurance coverage security, the creation of a High Ct earthquake list (of over 1k cases) and a series of representative actions.
- 4.5** Other notable developments included the reinstatement of EQCover with successive events, determination and interpretation of issues such as the extent of land damage, flood and liquefaction risk, the right to repair, replace or pay and standards of repair, and Treasury Report suggested reforms.
- 4.6** A series of cases helped determine interpretation of provisions and issues in both domestic cases (eg “as new”/“pre-existing damage”) and commercial cases (eg multiple events, underinsurance, BI claims). Other cases considered application issues such as reinstatement election practices, assignment of claims rights, settlement agreements and limitation questions.
- 4.7** On 14.11.16 a 7.8 magnitude earthquake struck Kaikoura, on the South Island, assessed as being one of the most complex earthquakes ever to strike land. It caused economic losses estimated at cNZ\$4.9bn of which NZ\$1.88bn were insured (primarily Wellington commercial losses). A series of initiatives are expected to simplify fast track settlements, reduce claims disputes and litigation, encouragement of early building work authorisations and coverage determinations.
- 4.8** Five lessons can be singled out from the experience of the aftermath of these earthquakes: the tension between the EQC and private top-up insurers highlights the pitfalls of a statutory scheme; litigation triggered a spate of expert witness shopping; contingency fees and litigation funders impacted upon the selection and availability of advocates; the need to select well between dispute resolution options became obvious; and the number of issues disputed concerning definitions of insured property, reinstatement provisions, limit/replacement questions and the issue of whether the EQC’s standard should follow the insurers all triggered debate again about the merits of (more) standardised policy wordings.

5. Close of Meeting

Many questions and observations were raised throughout the meeting. Further discussion was encouraged after the close. More about post-NZ earthquake dispute resolution options would be addressed by Mark Kelly in the Dispute Resolution Working Party session which was to follow.

All were reminded of the plenary session presentations also to follow on related themes. Also, to review presentations once posted on the website where news of the next meeting in Warsaw next April would be posted.

Tim Hardy

Chair, AIDA Climate & Catastrophic Events Working Party (CCEWP)