Contributing to the Global Debate on Climate Change—A View from Asia: A Retrospective Report on the 37th General Assembly in Zurich (June 2010)

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Global debate on climate change and our “Kyoto Statement”

The 15th Conference of the Parties (COP15) depicted the struggle among global leaders to reach a consensus on greenhouse gas emissions. This does not, however, justify inaction to cope with climate change especially for an industry whose function is heavily engaged in the social welfare system. By nature, the insurance industry is a critical component of society, and with its experience and knowledge accumulated through managing both tangible and intangible risks, the industry has much to contribute to the mitigation and adaptation efforts made by the society to counter the negative consequences brought about by climate change.

On a global basis, the adoption of the “Hyogo Framework for Action 2005–2015” (HFA) shed light on the need for climate risk management focused on prevention and preparedness. Prompted in part by the framework, the United Nations Framework Convention on Climate Change (UNFCCC) released its “Bali Action Plan” in 2007, which recognised the importance of insurance mechanisms. The UNFCCC’s statement helped drive an industry-wide debate on the role insurance is expected to play. It was against such backdrop that The Geneva Association launched the project on “climate change and its economic impact on insurance” (CC+I). One of the key accomplishments of the project was the release of “Kyoto Statement of The Geneva Association” in July 2009, subsequent to the discussions held in its 36th General Assembly in Kyoto, Japan. The statement sent out a message to key stakeholders on climate change, namely customers, policy-makers and officials involved in COP15, that leaders of the world’s largest insurance and reinsurance companies are willing to play a major and concerted role in the global efforts to counter climate change-related risks. The statement was accompanied by a full report on “The insurance industry and climate change—Contribution to the global debate”, which was widely distributed to international and national governmental bodies and experts to offer the insurance viewpoint on the climate-related initiatives. The report also effectively set the tone of the Association, as it intensified its external interaction towards COP15 and beyond.

The insurance industry's ongoing efforts to advance climate science and risk assessment

The core competencies of the insurance industry lie in the assessment and management of risk. There are ongoing studies regarding climate science and risk assessment methodologies proceeding primarily on an individual company level. This is of critical importance to the industry especially in light of the global trend towards implementing a robust risk-based regulatory regime, under which insurance companies are expected to evaluate all types of foreseeable risks, and allocate sufficient capital to assume the risks. Catastrophe models have been based upon historical statistics, but they need to be upgraded to withstand increasingly unpredictable weather patterns. Progress is being made in the field of climatology studies in producing realistic simulations of extreme weather events. The U.S. National Oceanic and Atmospheric Administration's Geophysical Fluid Dynamics Laboratory (GFDL) developed a unique downscaling approach to model hurricane activity.¹ They created an average climate change projection, which was fed into a regional model with much higher resolution to simulate entire hurricane seasons. Then GFDL's operational hurricane production model was used to simulate category 4 and 5 hurricanes. Works are under way in leading laboratories around the world to produce more reliable climate modelling. The choice of risk model and quality of data used to run the model may differ between each insurance company depending on its portfolio; however, insurance companies benefit from having reliable local climate information. In fact, one of the key underwriting challenges in developing economies, which are prone to weather-related natural catastrophes, is the lack of a reliable database for both historical losses and weather information.

In this context, the recent progress of the World Climate Conference-3 (WCC-3) is attracting the industry's attention. The World Meteorological Organization (WMO) and its partners encouraged the WCC-3 to consider a global framework for climate services that enables every country to access climate prediction and information services.² At the WCC-3, which was held 31 August-4 September 2009, in Geneva, it was recognised that existing gaps in the data networks needed to be minimised, and that climate information could be used effectively to deliver economic value to various sectors, including agriculture. It went on to identify the use of climate services as one of the potential socio-economic benefits, and advocated the systematic application of adaptation science. It should not be ignored that impediments do exist in collecting country-specific weather information; however, as the statement reads, "regional support institutions like development banks and insurers should be mobilised" as the global community seeks for cross-institutional support to integrate information between data sources and its users.

The industry's role in climate change mitigation and adaptation

In its attempt to learn from regional experiences, The Geneva Association engaged itself with Latin American experts on climate change. At the 1st CC + I Seminar of

¹ <http://www.gfdl.noaa.gov/news-app/story.20/title.gfdl-study-suggests-doubling-of-category-4-and-5-hurricanes-this-century/menu./sec./home>.

² http://www.wmo.int/wcc3/documents/WCC-3_Statement_07-09-09_mods.pdf.

The Geneva Association, which was held in Bogotá, Colombia, 19–20 October 2009, a study conducted by the United Nations Economic Commission for Latin America & Caribbean³ revealed that Latin American Cities (LAC) are facing challenges due to the uncontrolled growth of the urban areas, the growth of urban poverty and precariousness, and urban environmental degradation. Thus LAC are considered to be seriously vulnerable to climate change impacts, which may take the form of sea-level rise, storm surge flooding, windstorm or extreme temperatures, and result in stressed water resources, food insecurity, and potential threats to health and sanitation. The grim presumption is that the economically distressed populations are the ones who suffer first and most. The report concluded that disaster risk reduction is an essential part of adaptation as the first line of defence against climate change.

The United Nations International Strategy for Disaster Reduction (UNISDR) is running a campaign in 2010–2011: *Making Cities Resilient*.⁴ The campaign intends to raise awareness and commitment for sustainable development practices that will reduce disaster risk and increase the safety of citizens in cities or urban centres who count for more than a half of the world's population. From the Asian perspective, it may worth noting that out of the global top ten populated cities exposed to coastal flood hazard, six are found in Asia, namely Mumbai, Guangzhou, Shanghai, Ho Chi Minh City, Kolkata and Osaka-Kobe. The risk of coastal flood was one of the imminent threats identified during the Asian Conference on Disaster Reduction 2010, which was held in Kobe, Japan, in January 2010.⁵ In its efforts to further promote the priorities under the HFA, it exhibited a positive trend towards implementing legislations which incorporate risk reduction requirements, in place of traditional policies confined to pure disaster responses. However, many newly enacted policies and plans were not necessarily based on comprehensive multi-hazard risk and capacity assessments, according to one of the studies presented at the conference. It also pointed out that there was insufficient linkage between hazard monitoring, risk identification and analysis, and suggested the need to exploit alternative financial instruments to relieve the burden of response and recovery on communities and governments, including micro-insurance and reinsurance options. Facing all the challenges squarely, the conference praised the ASEAN Agreement on Disaster Management and Emergency Response (AADMER), as it took effect in December 2009, marking the world's first HFA-related binding instrument. The agreement fortifies national or sub-regional policies on disaster management by enabling a more proactive regional framework for cooperation, coordination, technical assistance and resource mobilisation for risk reduction. Establishing a disaster-resilient community is what the insurance industry shares as its goal, and thus the development of the AADMER deserves the industry's close attention.

Similar threats are conceivable in other parts of the globe, which calls for further study from both a mitigation and adaptation perspective. Viewing all the potential challenges, one may ask what viable solutions the insurance industry can offer.

³ Etudes et Dossiers No.356, Working Paper Series of The Geneva Association.

⁴ <http://www.unisdr.org/english/campaigns/campaign2010-2011/>.

⁵ http://www.adrc.asia/acdr/2010_index.html.

In order to utilise insurance mechanisms to assist the local society in confronting adverse effects of climate change, there has to be a reasonably reliable regulatory and societal framework in place. The absence of which would make it difficult for a local government to either nurture its domestic players or attract sound international players to the market. This is an area where the local government's direction is necessary. Even if such foundation for a healthy and competitive insurance market has been established, it may not guarantee that a sufficient number of private insurance players would start writing natural hazard risks which have strong relevance to climate change. In case there are serious threats of a natural catastrophe which may affect millions of citizens, the situation calls for a close cooperation between the local government and its private-sector insurance market. In the government's effort to lay out practical and affordable framework to protect its citizens from post-event economic distress, the experience and knowledge of the insurance industry should be utilised.

The industry's efforts to promote adaptation in developing economies

As one of the key activities over the past year, the Association joined forces with ClimateWise, the Munich Climate Insurance Initiative, and leading insurance companies within the United Nations Environment Programme Finance Initiative to produce a statement on "Adapting to climate change in developing countries".⁶ The statement emphasises the insurance industry's ability to offer effective solutions for the most vulnerable countries to soften the negative consequences of climate-related disasters. The message to the governments suggests that they take the following actions:

- Support proposals to catalyse adaptation efforts through risk management, loss prevention and risk transfer.
- Consider inserting language to recognise insurance as part of the adaptation negotiating text under the UNFCCC.
- Invest in systematic and reliable risk exposure data.
- Act on lessons learned about the role of government in convening and seeding regional public-private partnerships

The statement gives a number of examples of effective risk management solutions in developing countries, which are led by leading insurance or reinsurance companies, such as "Horn of Africa Transfer for Adaptation" (HARITA).⁷ Since 2008, a group of organisations has been offering financial and food security for farmers within the drought-prone area in Ethiopia. About 85 per cent of the population is said to be engaged in smallholder, rain-fed agriculture. On top of the evident climate stress, acute environmental degradation has depleted the country's natural resource base. To reduce farmers' vulnerability to droughts, the project introduced a weather index insurance product for staple cereal crop. A majority of enrolments came from participants in Ethiopia's Productive Safety Net Program, which is a federal cash-for-

⁶ http://www.genevaassociation.org/PDF/General_Information/Developing_World_Statement.pdf.

⁷ <http://www.oxfamamerica.org/files/harita-progress-report-jan2010-jun2010.pdf>

http://www.swissre.com/media/media_information/joint_risk_initiative_in_tigray_ethiopia.html.

work programme, most of whom work for activities intended to reduce farmers' vulnerability to droughts in return for cash to pay for crop insurance. In effect, HARITA initiative integrates insurance with both risk reduction and credit provision.

The statement received immediate support from the UNISDR and the Alliance of Small Island States. "We have an opportunity to reduce significant human and economic suffering through loss prevention and risk transformations", stressed Walter Stahel, Vice Secretary General at The Geneva Association at the release of the statement. At the time of this writing, Pakistan is suffering from an unprecedented flooding, a catastrophe which the United Nations linked to climate change.⁸ There is also a report from the China Meteorological Administration regarding intensified weather and climate losses in 2010.⁹ It reads that in early August, Gansu Province in Northwest China was hit by a flood and mud-rock flow, which was the most devastating disaster ever recorded as this category since the New China was founded, leaving heavy casualties and property losses. The incidents serve as painful reminder of the fact that approximately 90 per cent of victims of water-related disasters on the globe between 1978 and 2007 were found in the Asia-Pacific region. As the statement makes clear, the striking intensity of natural catastrophes does not permit inactivity.

The Geneva Association's collaboration with other industry organisations dedicated to climate issues is adding a new dimension to its activity base.

Progress in insurance product development

Climate change is driving insurance product innovation in two folds. There is a general expectation on the insurance industry to meet the growing need to manage risks effectively, which is essentially a motive for adaptation. However, some insurance products go even further, functioning as a mitigation tools by facilitating the production and distribution of green technologies or low emission appliances. Over the past couple of years, a number of leading property and casualty insurance companies have stepped up to underwrite leading edge environmental technologies, such as carbon capture and sequestration facilities or wind-power generators. Meanwhile, personal lines insurers in the U.S. market are seeing increasing demand for insurance coverage which corresponds to policy-holders' desire to rebuild a home or office building using green materials after an insured loss. There are policies which even deal with additional costs to regain green certification.¹⁰ In the automobile insurance arena, insurers have expanded their customer base with the so-called "pay-as-you-drive" automobile policies, which incentivise eco-friendly driving.

Needless to say, it requires highly strategic minds for an insurance company to seek business opportunities out of climate change; however, once a sustainable business model is structured, it should also benefit social welfare at the same time. As discussed above, having consumers as drivers of green policies, it is impossible for the insurance industry to neglect the trend.

⁸ <http://www.un.org/News/Press/docs/2010/ga10969.doc.htm>.

⁹ http://www.wmo.int/pages/mediacentre/news_members/CMA_news_aug_2010.html.

¹⁰ <http://www.un.org/News/Press/docs/2010/ga10969.doc.htm>.

A new wave of climate discussions

There are some other aspects of climate change which call for closer attention of the industry.

One of which has been the enhanced disclosure practices on climate change risks. Among various stakeholders involved, investor community has been actively promoting corporate disclosure standards on climate-related issues. The Carbon Disclosure Project (CDP), which has been representing the interests of institutional investors since 2000, received the highest level of disclosed emissions and greater detail ever in 2009, on the corporate activities around climate change mitigation and adaptation. The “Global 500 Report”¹¹ illustrated increasing willingness of the participating corporations to share information on their carbon performance, climate risks and opportunities.

Aside from voluntary motives such as CDP, the regulatory front has been noticeably active as well. The U.S. Environmental Protection Agency¹² set Mandatory Greenhouse Gas Reporting Rule effective 29 December 2009, which would directly impact large industrial and manufacturing facilities. Also in January 2010, the U.S. Securities and Exchange Commission released the “Interpretive Guidance”¹³ on disclosure related to business or legal developments regarding climate change, which was not meant to establish new legal requirements, but to clarify climate-related disclosure obligations. Some of the perspectives highlighted in the guidance included:

- Whether the impact of certain existing laws and regulations regarding climate change is material, which may include pending legal proceedings.
- Whether legal, technological, political and scientific developments regarding climate change create new opportunities or risks for the company.
- Whether physical impacts of climate change are expected.

Even insurance regulators in the United States are visibly active. In 2008, the National Association of Insurance Commissioners (NAIC) released a white paper entitled “The Potential Impact of Climate Change on Insurance Regulation”, which eventually led to the creation of “Insurer Climate Risk Disclosure Survey”.¹⁴ Over the course of the discussion, the NAIC concluded that disclosure of climate change risks was important because of the potential impact of climate change on insurer solvency as well as on insurance availability and affordability across all major categories of insurance. The regulators therefore found it necessary to conduct the survey to help furnish themselves with substantive information about the risks posed by climate change to insurers and the actions insurers were taking in response to their understanding of climate change risks. In practice, even though the NAIC’s original decision to mandate the survey and make it subject to public posting was softened as a result of heated debate among the interested parties, the initiative did see its launch in 2010. As each state regulator adds its own flavour in treating the reported information, it is easy to expect another round of debate over how climate risk disclosure practices should be

¹¹ https://www.cdproject.net/CDPResults/CDP_2009_Global_500_Report_with_Industry_Snapshots.pdf.

¹² <http://www.epa.gov/climatechange/emissions/downloads09/GHG-MRR-Full%20Version.pdf>.

¹³ <http://www.sec.gov/news/press/2010/2010-15.htm>.

¹⁴ http://www.naic.org/documents/committees_explen_climate_survey_032810.pdf.

guided. The insurance industry has been, and continues to be, actively involved in the discussion with the NAIC and state regulators to set a sensible disclosure practice that benefits both sides of the equilibrium.

All paths lead to increased transparency on climate change. Well-intended disclosure on climate risks should benefit a broad range of stakeholders including investors, regulators and consumers. However, if disclosure requirements become overly complex or detailed, it may increase corporate risks to comply or manage. A corporate manager risks being accused of misrepresenting his/her company, in case the publicised information is considered insufficient or inaccurate for a third party to assess the impact of climate change to the company. The shift towards a higher standard of climate risk disclosure may trigger an increased number of litigations, which leads us on to the following discussion.

The other aspect is the emerging concern in legal landscape surrounding climate change.

In the United States alone, at least two court of appeal cases were brought to light in the context of climate change over the past year. They were “Connecticut vs. American Electric Power” (Decided: 21 September 2009)¹⁵ and “Comer vs. Murphy Oil U.S.A” (Filed: 16 October 2009).¹⁶ The former case was brought up by eight states, including Connecticut, the City of New York, and several land trusts against six electric power companies, alleging that their emissions of carbon dioxide contributed to global warming, which led to cause harmful effects to human health. The latter case was filed by private landowners along the Mississippi Gulf Coast to assert a private nuisance claim under Mississippi law against a number of companies for their alleged contribution to global warming, because of which the severity of Hurricane Katrina increased, and resulted in heavier losses. Up to this point, no public ruling has been issued by the U.S. court system on either of the cases.

During The Geneva Association’s 37th General Assembly, the unfortunate oil spill incident in the Gulf of Mexico appeared every day as front page news. Although the accident was not caused by climate change, it did seem to raise public interest in environmental issues. It is too early to make any predictions on the future direction of how climate change will impact the legal landscape, but certainly not too soon to sense the negative ramifications and therefore to stay vigilant on developments.

Going forward: act as a hub for the international network of experts

One of the most fundamental challenges for the insurance industry in dealing with climate change is the lack of or limited access to information needed for risk evaluation. The insurance industry relies heavily on local weather information in the underwriting process; however, the availability varies by countries. Wherever an insurance company operates, it is always the quality of obtainable data that makes the difference in underwriting performance. Thus it becomes important to interact with expert organisations such as weather institutions. The WMO’s proposed initiative to

¹⁵ Nos. 05-5104-cv, 05-5119-cv.

¹⁶ No. 07-60756.

establish a global framework for climate services is a welcoming sign towards increased accessibility to local weather information. It would be beneficial for The Geneva Association to monitor the progress, and extend support, if necessary.

Climate-related insurance solutions are often the fruit of partnership between the public sector and private insurance companies, under which the insurance industry typically offers the expertise needed to cope with the risk, while the public sector offers financial capacity to support the program. This is easier said than done. The recent lapse of the U.S. National Flood Insurance Program reminded us of the difficulties in maintaining a public-private partnership program, no matter how long a history it carries. Challenging as it is, the insurance industry needs to be proactive in its cooperative efforts with a local government. The Geneva Association should make the most of its existing working relationship with governmental bodies, both national and international.

Progress in the field of climatology is helping the insurance industry increase the predictability in assessing climate-related risks. The Geneva Association should benefit from having a solid network of experts in climatology, meteorology, geology, atmospheric science, environment and risk modelling.

The Geneva Association's collaboration with other interested insurance industry organisations offers a viable step forward in its climate change adaptation activities. A one-voiced statement on "Adapting to climate change in developing countries" sent out a strong and appealing message to the relevant policy-makers. The statement focused on promoting climate change adaptation activities in the developing economies. The Geneva Association is gradually expanding its community base to embrace the interests of developing countries. There is a general tendency to focus the financial elements of adaptation initiatives especially in the context of those involving developing world. Nobody argues the importance of financial support in establishing a framework on climate change adaptation in a developing country; however, with its ability to offer expertise on loss prevention and to provide indemnity; insurance solutions are understated by many. The Geneva Association is there to communicate what the insurance industry can offer to the table. This may be conducted by collecting and distributing industry best practices on climate change every so often.

During The Geneva Association's General Assembly in Zurich, a number of climate-related concerns were identified by its members. The Geneva Association's ethos has always been to make ceaseless efforts in studying the challenges to the insurance industry, and sharing the findings both internally within the community and externally to help others understand the industry's position. As clearly expressed in the "Kyoto Statement of The Geneva Association", the association stands to offer a unique platform to pool the knowledge and expertise of the insurance sector. The Geneva Association continues to act as a hub for the international network of experts.