The Geneva Association – Webinar

Leveraging Insurance Industry contributions to Managing Extreme Events and Climate Risks: from words to action

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4 November 2016
AGENDA

About The Geneva Association

The Geneva Association Climate Risk Statement (19 November 2015) – Signed by 68 CEOs of Global (re)insurance industry

GA Facilitated High-level Consultations on role of the insurance industry in managing extreme events and climate risks 2015/2016

Underpinning GA Research Conducted to date to guide the prioritization for action:

✓ Report: The COP 21 Paris Agreement: What Does It Mean for the (Re)insurance Sector?
✓ Global Stakeholder Landscape and Initiatives

From Statement to Action on Extreme Events and Climate Risks Programme – GA Work Plan (2016-2018)

➢ Pillar 1: Disaster Risk Management and Climate Change Adaptation
➢ Pillar 2: Transitioning to Low Carbon Economy
The Geneva Association is the leading international insurance think tank for strategically important insurance, economics and risk management issues.

The membership comprises a statutory maximum of 90 chief executive officers (CEOs) from the world’s top insurance and reinsurance companies, whose companies have gross written premiums of nearly $2 trillion, more than $14tn in total assets, more than 2 million employees, and serving customers in more than 140 countries.

We work directly with C-Level executives, chief economists, and leading experts in the industry as well as other partners.
19 November 2015

The Geneva Association issued its Climate Risk Statement, a commitment to progress on climate resilience and adaptation signed by 68 chief executive officers of the global (re)insurance industry.

Some Highlights:

Investment in research and Knowledge Sharing: Risk Modeling, Risk Pricing, Prevention, etc.

Product innovation, market development, claims settlement to build resilience and to encourage transitioning to low carbon economy.

Adaptation and mitigation strategies and their cost/benefits and building partnerships with the public sector.

Insurance products, investment strategies to support low-carbon energy encourages mitigation and adaptation efforts, such as investing in low-carbon energy projects.

Link to the GA Climate Risk Statement: https://www.genevaassociation.org/media/934317/geneva-association-commits-statement.pdf
The GA has organized a number of high-level consultations on Insurance and Climate Change (engaging CEOs, Heads of UN and other International Organizations, Ministries of Finance.)

\ Special Session on Climate Change and the Insurance Sector : A joint Event of OECD and The Geneva Association (3 December 2015, Paris)

\ Former Executive Secretary of UNFCCC, Christiana Figueres joined The Geneva Association Board meeting to discuss the role of (re)insurance and climate change (2 February 2016, Munich)

\ The Geneva Association, in collaboration with IIS and ICMIF, led a High-Level Meeting on Resilience, hosted by the UN Secretary General, Ban-Ki Moon, engaging the CEOs of the insurance industry and high level officials from the international organizations (13 April, UN HQ, NYC)

\ A panel discussion at ClimateAction 2016 (4 May 2016, Washington DC)
In 2015/2016 timeframe GA has completed a number of studies to underpin the dialogue and consultations:

1) An Integrated Approach to Managing Extreme Events and Climate Risks
Towards a Concerted Public-Private Approach
With recommendations to harness potential contributions of the insurance industry
Authors: Maryam Golnaraghi, Swenja Surminski, and Kai-Uwe Schanz
Link for the report: https://www.genevaassociation.org/media/952146/20160908_ecoben20_final.pdf

2) COP 21 Paris Agreement: What Does it Mean for the (Re)insurance Sector?
Author: Maryam Golnaraghi with contributions from: David Bresch, Peter Höppe, Karsten Löffler, Masaaki Nagamura, Ernst Rauch
Link for the report: https://www.genevaassociation.org/media/942906/whatdoescop21meanforinsurance_complete_digital.pdf

3) Overview of Global Stakeholder Landscape and Initiatives
Authors: Maryam Golnaraghi and Patrick Khalil
(Forthcoming, January 2017)
The report provides insights about:

- The causes and effects of mounting social and economic risks,
- International policy dialogue and latest developments,
- The stakeholder landscape
- Obstacles and opportunities to fully capturing the insurance industry’s contributions.
- Concrete recommendations on how to leverage and further expand the contributions of the insurance industry in building economic resilience to extreme event and climate risks.

An Integrated Approach to Managing Extreme Events and Climate Risks
Towards a Concerted Public-Private Approach
With recommendations to harness potential contributions of the insurance industry

Authors:
- Maryam Golnaraghi, Director Extreme Event and Climate Risks Programme, The Geneva Association;
- Swenja Surminski, Senior Research Fellow, Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science;
- Kai-Uwe Schanz, Special Advisor to The Geneva Association.

September 2016
TREND OF RISING WEATHER-RELATED ECONOMIC LOSSES AND UNINSURED LOSSES

Natural disaster losses worldwide (1980-2015)

THERE IS STILL A LARGE AND, IN SOME PLACES, GROWING INSURANCE PROTECTION GAP, INDICATING THAT THE POTENTIAL OF INSURANCE IS NOT FULLY UTILIZED GLOBALLY
TREND OF RISING WEATHER-RELATED ECONOMIC LOSSES AND UNINSURED LOSSES

Natural disaster losses worldwide (1980-2015)

There is still a large and, in some places, growing insurance protection gap, indicating that the potential of insurance is not fully utilized globally.
TREND OF RISING WEATHER-RELATED ECONOMIC LOSSES AND UNINSURED LOSSES

Natural disaster losses worldwide (1980-2015)

There is still a large and, in some places, growing insurance protection gap, indicating that the potential of insurance is not fully utilized globally.
KEY MILESTONES IN INTERNATIONAL POLICY DIALOGUE ON DISASTER RISK REDUCTION, CLIMATE CHANGE AND SUSTAINABLE DEVELOPMENT

1980
1988
1992
1994
1995
1996
1997
2005
2010
2011
2012
2015

1) DISASTER RISK REDUCTION
- Reduction of socio-economic risks of extreme events
- Yokohama Strategy
  - First guideline for national disaster prevention and preparedness
  - 10 principles for action

2) CLIMATE CHANGE
- Socio-economic risks of climate change (extreme events and slow-onset events)
- WCRP
  - World Climate Research Programme launched
  - Internationally coordinated climate research
- IPCC
  - Intergovernmental Panel on Climate Change established (WMO, UNEP)
- UNFCCC
  - United Nations Framework Convention on Climate Change adopted
- COP1
  - The First UNFCCC Conference of Parties took place in Berlin; The Berlin Mandate
- Kyoto Protocol
  - Linked to UNFCCC, commits Parties by setting international by-binding emission reduction targets
- COP15
  - Cancun Adaptation Framework
- COP17
  - Durban Platform for Enhanced Action
- Doha Amendment to Kyoto
  - Establishing second commitment period of Kyoto

3) SUSTAINABLE DEVELOPMENT & POVERTY REDUCTION
- United Nations Conference on Sustainable Development

SENDAI FRAMEWORK
- The Sendai Framework for Disaster Risk Reduction (2015-2030)
  - 4 priorities for action
  - 7 measurable targets

COP21
- Paris Agreement
- RID + 20

RIG 2050-2030
- United Nations Sustainable Development Goals 2015-2030

2015

A PIVOTAL YEAR IN WHICH THESE THREE INTERNATIONAL FRAMEWORK AGREEMENTS CONVERGED IN PROMOTING AN INTEGRATED APPROACH TO DISASTER AND CLIMATE RISK MANAGEMENT AND THE IMPORTANCE OF INSURANCE
The Sendai Framework for Disaster Risk Reduction (2015-2030)
• 4 priorities for action
• 7 measurable targets

These three international framework agreements highlight the importance of an integrated approach to disaster and climate risk management as well as the importance of insurance in building economic resilience across different economic sectors, levels of government and society.
MANAGING RISKS OF DISASTERS AND CLIMATE REQUIRES AN INTEGRATED APPROACH

ROLE OF GOVERNMENT

- Provide enabling environments including sound policies and regulatory frameworks
- Layout institutional foundations to enable better planning and budgeting across government layers
- Address and facilitate systemic collection of reliable hazard and socio-economic data (including loss and damage and hazard databases)
- Realise opportunities for risk reduction and risk transfer through public–private partnerships
- Invest in educating and raising awareness about risks and benefits of risk management including insurance

COMPONENTS OF AN INTEGRATED APPROACH TO EXTREME EVENTS AND CLIMATE RISKS MANAGEMENT

RISK ASSESSMENT
- Build capacities to assess risks

RISK REDUCTION
- Prevention
  - Reduce risks through ex-ante preventative measures and avoid creating new risks
  - Early Warning & Preparedness
  - Improved capacity to manage emergencies through warnings and emergency preparedness

FINANCIAL PROTECTION
- Risk Financing & Risk Transfer (Insurance)
  - Enhance financial resilience of society

RESILIENCE BUILDING
- Resilience through Recovery & Reconstruction

ROLE OF INSURANCE INDUSTRY

- Share risk knowledge and risk pricing expertise
- Share research and knowledge in preventative measures
- Innovation in risk transfer programs and products to build financial protection for governments, businesses, communities, individuals (incentives to change behaviour)
- Faster and more efficient claims settlements management and payouts
- Support development of sound risk transfer programmes through public-private partnerships
CHALLENGES AND HURDLES WITH EXPANSION OF INSURANCE AROUND THE WORLD

MARKET-BASED INSURANCE MECHANISMS NOT ONLY HELP WITH RISK SHARING AND RISK TRANSFER, BUT ALSO COULD ENCOURAGE MORE RISK-CONSCIOUS BEHAVIOUR

OVERALL CHALLENGES

- Difficulties in risk assessment due to lack of data
- Asymmetrical information leading to adverse selection
- Limited take up of disaster insurance meaning a relatively small pool of policy holders
- Moral hazard unless insurance is incentivising risk-reducing behaviour

HIGH-INCOME COUNTRIES ALSO EXPERIENCE

- Fluctuating capacity and appetite in the market
- Risk-pricing difficulties
- Role of public policy and political motivation

MID- AND LOW-INCOME COUNTRIES ALSO HAVE ADDITIONAL CHALLENGES

- Limited or lack of:
  - availability of data,
  - risk modelling tools,
  - technical expertise,
  - financial infrastructure,
  - strong and reliable domestic finance sector,
  - risk management culture with multi-hazard, multi-sectoral approach
  - insurance penetration, particularly in remote rural areas;
  - scale, given the low number of insured parties

- Regulatory constraints
- Need for global (re)insurance capacity and expertise
- High distribution and claims settlement costs, particularly in remote rural areas
### (1) Enhance Risk Assessment Capacities and Expand to Public Sector

**Risk Knowledge Development:**
- **Global:** Global Risk Assessment Report (GAR), World Economic Forum (WEF), Global Earthquake Model (GEM), Tsunami risk by RMS
- **Regional:** Caribbean Catastrophe Risk Insurance Facility (CCRIF), The African Risk Capacity (ARC), Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI)
- **Country:** Studies by RMS, AIR with World Bank Group and other development banks
- **Local:** Risky Business

**Institutional Capacity Development:**
- Central American Probabilistic Risk Assessment (CAPRA)

**Products/Platforms/Tools:**
- Open versus proprietary: various open source models (see World Bank report), OASIS (open source), versus risk modeling firms (proprietary)
- Tools for development practitioners: ThinkHazard

### (2) Promote an Integrated Approach to Managing Extreme Events and Disaster Risks

**United Nations Global Campaigns:**
- United Nations International Strategy for Disaster Reduction (UNISDR), UN Habitat, Global and Regional DRR Platforms

**Industry:**
- Many (re)insurance company R&D programmes and centers of excellence
- Multi-laterally funded R&D: Insurance Institute for Business and Home Safety (USA), Insurance Research Lab for Better Homes (Canada), Prevention and Safety Testing Institute (Germany)
- Multi-lateral: ClimateWise
- With governments and international partners: A joint Event of OECD and The Geneva Association (3 December 2015, Paris), High Level Forum on Resilience (13 April, UN HQ, NYC), Climate Action 2016 (4 May 2016, Washington DC), Launch of Insurance Development Forum (IDF)
- Rating agencies: DRR and climate research teams at S&P, Moody's

**NGOs:**
- 100 Resilience Cities, Compact of Mayors and ICLEI
EXAMPLES OF INITIATIVES BY STAKEHOLDERS OVER THE LAST DECADE, CATEGORISED UNDER FOUR MAIN THEMES (2\2)

### (3) BUILDING SOLUTIONS FOR DISASTER RISK Financing AND Insurance

**COUNTRIES AND FLOODS:**
- Sweden, Portugal and Ireland voluntary flood insurance, UK Flood Re, Netherlands Flood Insurance, Australia, Canada

**COUNTRIES AND OTHER PERILS:**
- France, Spain, Mexico, India, Mongolia, Turkey: Turkish catastrophe insurance, New Zealand Earthquake Authority, Kenya and Ethiopia indexed based livestock insurance

**REGIONAL SOCIO-ECONOMIC GROUPINGS WORKING GROUPS AND INITIATIVES**
- The Association of Southeast Asian Nations (ASEAN), Asia-Pacific Economic Cooperation (APEC), The Caribbean Community Market (CARICOM), G20 InsuResilience

**REGIONAL FACILITIES:**
- Caribbean Catastrophe Risk Insurance Facility (CCRIF), The African Risk Capacity (ARC), Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFi)

**GLOBAL INSTITUTIONS AND PROGRAMS:**
- Global Index Insurance Facility (GIIF) of the World Bank, The Global Action Network (GAN), The International Labour Organisation (ILO) in cooperation with several private insurers, The World Food Programme (WFP), Global Parametrics, Blue Marble, LeapFrog
- The Access to Insurance Initiative (A2ii), 5-5-5 Mutual Microinsurance Strategy of the International Cooperative and Mutual Insurance Federation (ICMIF)

**INDUSTRY:**
- The Munich Climate Insurance Initiative (MCII), Lloyd’s Syndicate Disaster Risk Finance Facility for developing economies

**PRODUCT INNOVATION:**
- Indexed Based Insurance (IBI), Microinsurance, Access to Capital markets: PennUnion Re Ltd. (Series 2015-1), MetroCat Re Ltd

### (4) AGRICULTURE SECTOR AND RISK Financing

**INITIATIVES FROM GOVERNMENTS AND NGOs HAVE LED TO A RISE IN THE USE OF AGRICULTURE INSURANCE IN SEVERAL DEVELOPING COUNTRIES:**
- The total number of insured smallholders worldwide is 177 million divided into approximately ~440,000 in Africa, ~3.3 million in Latin America and the Caribbean, about ~173 million in Asia (of which 140 million are in China, and 33 million in India).
- So far, the private sector has played only a minor role in insuring farmers and rural communities

**NATIONAL AGRICULTURAL INSURANCE PROGRAMMES**
- India, Mexico, etc.

**GLOBAL INSTITUTIONS AND PROGRAMS:**
- Global Index Insurance Facility (GIIF) of the World Bank, The Global Action Network (GAN), The International Labour Organisation (ILO) in cooperation with several private insurers, Global Parametrics
- The R4 Rural Resilience Initiative (WFP & Oxfam America), The Livelihoods, Early Assessment and Protection (LEAP) (Ethiopia & WFP), The Food Security Climate Resilience Facility (FoodSECuRE) (WFP), Weather Risk Management Facility (WRMF) (WFP & International Fund for Agricultural Development)
Governments, the insurance industry and other stakeholders need to align priorities and leverage their strengths and initiatives in a more coordinated manner to address the global resilience and insurability challenge.
RECOMMENDATIONS FOR EXPANDING THE CONTRIBUTIONS OF THE INSURANCE INDUSTRY

BUILDING ON STRONG PUBLIC-PRIVATE PARTNERSHIPS

1. RAISE AWARENESS OF SOCIO-ECONOMIC BENEFITS OF PREVENTION AND RISK TRANSFER MEASURES
   - Document and share good practices demonstrating socio-economic benefits of prevention and risk transfer measures and their interlinkages

2. EXPAND RISK MODELLING CAPACITIES
   - Sharing risk knowledge and expertise with the public sector
   - Contribute to the development of next generation of forward-looking models in partnership with scientific community

3. RESILIENCE OF CRITICAL INFRASTRUCTURE
   - Explore and realise the role of the insurance industry in investing and building critical infrastructure

4. RESILIENCE OF MEGA-CITIES AND URBAN AREAS
   - Explore and realise the role of insurance in enhancing resilience of mega-cities and urban systems
In 2015/2016 timeframe GA has completed a number of studies to underpin the dialogue and consultations to converge to priorities for action:

1) An Integrated Approach to Managing Extreme Events and Climate Risks
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2) **COP 21 Paris Agreement:** What Does it Mean for the (Re)insurance Sector?
*Author:* Maryam Golnaraghi  *with contributions from:* David Bresch, Peter Höppe, Karsten Löffler, Masaaki Nagamura, Ernst Rauch
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3) **Overview of Global Stakeholder Landscape and Initiatives**
*Authors:* Maryam Golnaraghi and Patrick Khalil
(Forthcoming, January 2017)
This paper analyses the relevance of the COP21 Paris agreement outcomes for the (re)insurance industry, the strategy of COP21 and its differences with previous negotiations and what it means for the industry.

COP 21 Paris Agreement: What Does It Mean for the (Re)insurance Sector?
A GENEVA ASSOCIATION RESEARCH REPORT

Author:

By Maryam Golnaraghi, Director Extreme Event and Climate Risks Programme, The Geneva Association

with contributions from:

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and Ernst Rauch, Head of Corporate Climate Centre, Munich Re

February 2016

Link for the report: https://www.genevaassociation.org/media/942906/whatdoescop21meanforinsurance_complete_digital.pdf
THE COP 21 PARIS AGREEMENT: WHAT DOES IT MEAN FOR THE (RE)INSURANCE SECTOR?

COP 21 Paper – Excerpts

\ It is clear from the explicit inclusion of insurance in the COP21 decisions and the Paris Agreement that countries recognise the importance of insurance as an integral part of national climate risk management strategies and the high potential for building financial resilience.

\ The outcomes of COP21 (and the Sendai Framework for DRR) have opened the doors for innovative insurance solutions, in developed and developing nations. The insurance industry has the potential to contribute significantly to making societies more resilient with respect to the adverse effects of climate change and, at the same time, creating new business.

\ The public sector is required to lay the institutional foundations, whilst the insurance industry is challenged to think and act more creatively to understand the risks, actively participate in defining the role of the private sector and consider new markets, products and strategies. To this end, active engagement in relevant public–private partnerships and closer cooperation amongst (re)insurance, policymakers, governments, regulators and other stakeholders is critical to paving the way.

\ It seems inevitable that by 2020 the (re)insurance sector will not only be providing a wider range of risk-transfer solutions, but also be supporting emission reduction efforts and transitioning to a low-carbon economy through its investment strategies as well as actively managing its carbon footprint.

\ Furthermore, with the agreements for the net-zero emission target by 2050, the (re)insurance industry has the opportunity to engage proactively with other key stakeholders to find the best investment strategies towards a low carbon economy.

\ Fragmentation of national climate and sectoral policies under COP 21 agreement will pose challenges.
Since the issuance of the GA Climate Statement in November of 2015, The GA through its research and high-level consultations has focused its 2016-2018 work plan priorities around two main pillars. The work plan is being implemented through engagement with the industry and a variety of strategic partners.

**Pillar 1: Explore and expand role of insurance industry in increasing resilience to extreme events and climate change adaptation**

- **Project 1**: Raise awareness of benefits of effective public-private partnerships and interplay of risk-based preparedness, preventive and risk transfer measures
- **Project 2**: Expand risk-based decision-making through: (i) partnerships for sharing the industry’s risk knowledge and expertise with governments; and (ii) systematic partnership with the scientific community to develop next generations of risk models
- **Project 3**: Explore the role of insurance industry in investing in and increasing climate resilience of critical infrastructure

**Pillar 2: Transitioning to Low Carbon Economy**

- **Project 4**: Challenges and opportunities related to sound transitioning towards a low carbon economy
- **Project 5**: A risk-based study of alternative energy sources
Thank You

For further discussion, questions or to send your feedback, please contact:
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