



Climate change has a pronounced effect on our environment with an increase in potential for substantial property and liability losses

## Climate related disasters

According to the US National Oceanic and Atmospheric Administration (NOAA) 2005 surpassed all previous years regarding frequency and severity of tropical storms: 27 named tropical storms developed, of which 15 were hurricanes – including seven major ones – in the North Atlantic / Gulf of Mexico basins, setting an all-time record. Hurricane Katrina caused the by the time costliest insured loss for the private insurance industry at almost USD 60 billion. Total economic losses amounted to approximately USD 125 billion.

The evidence is unequivocal: the climate is warming globally. According to the NASA scientific analyses can prove that the earth has warmed since 1880. “Most of the warming occurred in the past 35 years, with 15 of the 16 warmest years on record occurring since 2001. The year 2015 was the first time the global average temperatures were 1 degree Celsius or more above the 1880-1899 average. Even though the 2000s witnessed a solar output decline resulting in an unusually deep solar minimum in 2007-2009, surface temperatures continue to increase.”

As a consequence we have seen widespread increases in sea temperatures and sea levels, along with shrinking sea ice, glaciers, and snow cover. At the same time, weather patterns have become more extreme, with more intense and longer droughts, more extreme precipitation events over many land areas, and more hot days and heat waves.

The risks include more frequent and dangerous floods and storms, greater stress on water supplies, serious disruption of energy supply, a decline in agricultural productivity and food security, and a further spread of water-related diseases, particularly in tropical areas. This in turn could lead to population displacement, migration, and potential conflicts.

The recent warming of the Earth's surface and the lower levels of atmosphere is a result of an enhanced greenhouse effect mostly due to man-made increases in atmospheric greenhouse gases, particularly CO<sub>2</sub>.

Energy production and use are the biggest contributors to greenhouse gas emissions, and will remain so for years to come. Bringing global emissions to recommended levels

will require significant reductions from developed countries and a slower rise in emissions from developing ones.

In view of more frequent and fierce wind, hail and flood events (re)-insurers have already changed their pricing models. Other lines of business will follow. The time-frame is yet not fully understood. So far all forecasted changes took place faster than predicted. For the future it can be assumed that climate change will not only affect property business but will also have an impact on liability covers and possibly on life and health policies.

Several cases are already seeking damages from various defendants for alleged injury and nuisance arising out of greenhouse gas emissions and related climate change. At least one of these cases expressly alleges that events like Hurricane Katrina were more severe and caused more damage than they otherwise would have because of atmospheric change wrought by relatively-recent industrial emissions. In an analysis from August 2012 dealing with insurance issues of climate change the Insurance Information Institute refers to a similar trend: “The potential increase in property losses may be relatively small in comparison to what could happen on the liability side. Liability suits could be filed based on legal concepts yet untested as well as existing ones tailored to “sustainability” cases. Sustainability is broadly defined by the U.S. Green Building Council as “meeting the needs of the present generation without compromising the ability of future generations to meet their own needs.” Awards could be substantial because, by their very nature, activities that result in harm to the environment and future generations can impact large numbers of people. Even where lawsuits are not successful, and there is no court award against the defendants, insurers can incur substantial legal costs.”

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