News Release

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Australians to suffer more extreme weather events in a warmer climate

Climate change will result in more frequent and intense extreme weather events across Australia, resulting in greater property, personal and economic damage, and hardship for Australian communities.

This warning was released today in the second edition of the *Severe Weather in a Changing Climate* report, from IAG, Australia's largest general insurance company, and the US-based National Center for Atmospheric Research (NCAR).

The updated report incorporates new research and feedback from the scientific community and reinforces the predictions from the original report, which show that extreme bushfires, tropical cyclones, storms, hail and floods are becoming more frequent and intense in a warmer world – and the increase in global temperatures to date is already influencing these events and impacting communities now.

Since the first edition of the report was released in November 2019, Australia has experienced many of these extreme events firsthand, including devastating bushfires, floods, east coast lows and hailstorms, all compounded by a global pandemic.

According to the Insurance Council of Australia, insurers have already paid more than $3.85 billion in claims to date for four of these major weather events alone, including the summer bushfires, the South East Queensland hailstorms in November, hailstorms across NSW, ACT and VIC in January, and storms across the east coast in February.

IAG CEO and Managing Director Peter Harmer said: "These extreme weather events affect Australian communities financially, socially and psychologically and we must do everything we can to prevent a repeat of the heartbreaking loss of life and property we saw last summer.

"This report shows climate change is already affecting the frequency and location of extremely damaging weather events in Australia and our communities have felt this firsthand. We see these impacts when we are on the ground helping our customers and their communities rebuild their lives.

"The science is clear that in a warmer climate these events will become more frequent and more destructive and this is why it's crucial we work collaboratively to mitigate these events and ensure we are prepared."

The report assesses the latest climate science as at July 2020 and examines the effect climate change will have on extreme weather events across different parts of Australia to enable businesses, governments and the community to understand and plan for the impacts of climate change.

It incorporates extensive feedback from the scientific and academic community across the world which underscores many of the findings from the original report.

IAG Executive Manager Natural Perils, Mark Leplastrier, whose team developed the report with NCAR, said: “When we released the first report we knew it was at a crucial time in the context of understanding how a warming climate would impact the range of severe weather events that have such a devastating impact on our communities. We encouraged peer review and invited the scientific community to work with us to ensure we had the most up to date and accurate scientific information and modelling.

“We were pleased to receive extensive feedback and input. While there were some variations, the vast majority of feedback we received strengthened and affirmed our original assessments, giving us further confidence in our findings.”

The report shows that a warmer climate will affect:

- **Bushfires:** Bushfire weather risk, including most catastrophic types of bushfires, will increase across almost all locations nationally, although there will continue to be large variability in the level of risk each year. Australia will experience longer fire seasons and more extreme bushfires. Critically, this will reduce the amount of time able to be spent on mitigation and fuel management activities including hazard burns.

- **Tropical cyclones:** Australia will experience fewer cyclones overall, but those that do hit the country will move further inland and be more devastating and destructive to communities – including an increase in extreme category 4 and 5 tropical cyclones, such as Cyclones Yasi, Debbie, Marcia and Damien. Cyclones will also move south towards regions that typically haven’t experienced these types of events – particularly parts of south-east Queensland and north-east New South Wales.

- **Hail:** Hailstorms with large (2cm-4.9cm in diameter) to giant (5cm> in diameter) hail, have already increased in frequency over south-east Australia. In a warmer climate, the areas most at risk of these hailstorms will be further south including Sydney, Adelaide, Perth, Canberra and Melbourne. In particular, the inland region from the Hunter River, down through the central and southern New South Wales highlands, and into central and eastern Victoria, will also be exposed to higher risk.

- **Storms and flood:** Intense bursts of rainfall are expected to increase across the country, resulting in more frequent and severe flash floods. The east coast of Australia will be particularly vulnerable to flash flooding and fast response river flooding due to this expected increase in intense rainfall coupled with increased impacts from east coast lows and the southward expansion of the areas at risk of tropical cyclones.

Emeritus NCAR, Senior Scientist, Greg Holland, was a significant contributor to both the original report and its second edition. He says that the report is a good example of how businesses and the scientific community are working together to help better understand and communicate the impacts of climate change.

“Climate change affects us all and the more that we can share information, the better off we are – we need to work together if we’re going to make a difference.

“This report provides a comprehensive understanding of how climate change is affecting different parts of Australia – our aim is that it can be used to inform decisions made by governments, business and the community on how they will respond to these high-impact weather changes,” Dr Holland said.

The full report and a fact sheet summarising the report findings is available on the IAG website along with recordings of the presentations from the launch of the report.

The presentations from the original launch event are also available on the IAG website.

Contributors

The Severe Weather in a Changing Climate 2nd Edition benefited from contributions from many researchers including the following individuals who contributed and peer-reviewed the updates to the report:

- Bureau of Meteorology (BoM) – Andrew Dowdy, Joshua Soderholm, Andrew Brown and Alain Protat
- CSIRO – Hamish Ramsay
- NCAR – Janice Coen
- Rutgers University – Robert E Kopp
- University of New South Wales (UNSW) and The Centre of Excellence for Climate Extremes (CLEX) – Ian Macadam on behalf of multiple scientists at both organisations
- University of Wollongong – Hamish Clarke

IAG and NCAR also extend thanks to the following contributors:

- BoM – Acacia Pepler and Scott Power
- CSIRO – Kathleen McInnes, Michael Grose, Kevin Hennessy, Geoff Gooley and David Karoly
- University of Wollongong – Owen Price
- University of Melbourne – Todd Lane, Andrew King and Kevin Walsh
- UNSW and CLEX – Andy Pitman, Jason Evans, Lisa Alexander, Nina Ridder and others
- Monash University – Robert Warren, Christian Jakob and Michael Reeder
- Curtin University – Merv Lynch and Diandong Ren

About IAG

IAG is the parent company of a general insurance group (the Group) with controlled operations in Australia and New Zealand. The Group's businesses underwrite over $12 billion of premium per annum, selling insurance under many leading brands, including: NRMA Insurance, CGU, SGIO, SGIC, Swann Insurance and WFI (Australia); and NZI, State, AMI and Lumley (New Zealand). IAG also has an interest in a general insurance joint venture in Malaysia. For further information, please visit www.iag.com.au.

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