Australia to get hotter and bushfire season longer, study says

March 4 2014, by Martin Parry

File photo taken in February 2009 shows a fireman monitoring a fire raging in the Bunyip State Park during Victoria's deadly Black Saturday fires

Australia will suffer more days of extreme heat and a longer bushfire season as greenhouse gases force temperatures to continue rising, a new report warned Tuesday.

The joint study by the Commonwealth Scientific and Industrial Research Organisation and the Bureau of Meteorology said temperatures across

Australia were, on average, almost 1.0 degree Celsius (1.8 degrees Fahrenheit) warmer than a century ago.

Seven of the 10 warmest years on record have occurred since 1998 while over the past 15 years the frequency of very hot months has increased five-fold, it said.

The scenario was starkly illustrated in 2013, which was Australia's hottest year since records began in 1910 and included a prolonged national heatwave.

Megan Clark, chief executive of the CSIRO, Australia's peak science body, said the country has warmed in every state and territory and in every season.

"Australia has one of the most variable climates in the world. Against this backdrop, across the decades, we're continuing to see increasing temperatures, warmer oceans, changes to when and where rain falls and higher sea levels," Clark said.

"The sea-surface temperatures have warmed by 0.9 C since 1900 and greenhouse gas concentrations continue to rise."

Australia is routinely hit by bushfires during its December-February summer months, with hot windy conditions again fanning hundreds of blazes this season with dozens of homes destroyed.

The report said it would only get worse.

A firefighter battles approaching flames from a bushfire near Faulconbridge in the Blue Mountains on October 24, 2013

"A further increase in the number of extreme fire-weather days is expected in southern and eastern Australia, with a longer fire season in these regions," it said of areas devastated by fires this year.

It also forecast less rainfall in southern Australia and more severe droughts in a grim warning for farmers.

The report, released every two years, added that tropical cyclones were projected to decrease in number but increase in intensity, while rising seas levels would cause more problems for coastal dwellers.

The report said Australian temperatures could rise by 1.0 to 2.5 C by 2070, compared to 1980 to 1999, depending on the level of greenhouse gas emissions.

Practical changes

While cutting global emissions would be crucial to preventing the worst global warming has in store, that alone would not be enough, the agencies warned.

"Adaptation is required because some warming and associated changes are unavoidable," it said.

Neville Nicholls, a professor at the School of Geography & Environmental Science at Monash University, said Australia was already working to deal with climate change on a practical level.

Victoria Country Fire Authority handout photo provided on January 17, 2014 shows a plane dropping fire retardant material over bushfires in the Grampians in Australia

"Luckily, we have started to adapt to these risks," he said.

"Heat alert systems in many cities across the world, including Australia, are starting to reduce some of the impacts of severe heat events.

"And governments, fire services, and bureaucrats have worked to improve the way we prepare for and deal with bushfires; this is an effective climate change adaptation, even if it was not done specifically in response to the climate-driven increased risk."

Jim Salinger, a climate scientist at the University of Auckland, predicted that the growing heat risks in Australia would see more people moving to the cooler climate of neighbouring New Zealand.

"With such trends I would expect to see a reverse in migration across the Tasman, with increasing numbers of Australians coming to New Zealand," he said.

"This is as the climate of continental Australia becomes very harsh."

Citation: Australia to get hotter and bushfire season longer, study says (2014, March 4) retrieved 25 April 2024 from https://phys.org/news/2014-03-australia-hotter-bushfire-season-longer.html