Adaptation key to protect vulnerable from climate change

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Professor Mark Howden. Credit: Jamie Kidston/ANU

Climate change is affecting every region in the world, almost every sector, and people in both urban and rural settings, authors of the latest Intergovernmental Panel on Climate Change (IPCC) report warn.

In particular, the most vulnerable people and ecosystems are likely to be the worst hit by adverse effects, according to the report authors. These

effects include heat stress and flooding in cities across the globe, which combined with other climate change impacts, are damaging the lives, health and livelihoods of urban residents and connected rural communities.

The latest IPCC report canvasses the impact of climate change across a range of critical areas, including infrastructure, health and wellbeing, food, disasters, sanitation and water and more importantly, identifies adaptation responses and the conditions that accelerate their adoption.

Report co-author and IPCC Vice Chair, Professor Mark Howden from The Australian National University (ANU), said Australia and the rest of the world need to "aggressively pursue" emissions reductions as well as heavily invest and rapidly implement climate adaption strategies to avoid the worst outcomes.

"Climate change impacts are here, they matter, they are mostly negative but, if implemented, adaptation can take the edge off them," Professor Howden, Director of the ANU Institute for Climate, Energy and Disaster Solutions, said.

"The latest IPCC report makes one thing crystal clear: adaptation policy, finance and practice have to be stepped up urgently if our systems are to keep pace with climate change. Adaptation action is a core foundation of sustainable development.

"Simply put, adaptation is key to maintaining our health, our industries and our environment.

"Including climate change adaptation in all those decisions which are sensitive to climate change or sea-level rise can bring far more benefits than costs. And effective adaptation will lower risk and hence improve the investment environment.

"We can learn from climate change adaptation actions around the globe, including those implemented by indigenous peoples and through indigenous knowledge, and invest in the research and development that will give us new and better ways to adapt together."

Associate Professor Ruth Morgan from ANU is a lead author of the report's chapter on water. She said there were already clear lessons for Australia when it came to climate change and water.

"Climate change is already changing Australia's rainfall; that is, where it rains, when, and how much," Associate Professor Morgan, Director of the ANU Centre for Environmental History, said.

"We're seeing more rainfall in the north, while in the south, droughts are becoming both more likely and severe. Climate change is also playing a major role in the drying trend underway in the southwest, affecting Perth and the wider region, from Geraldton down to Esperance.

"Less rain means that there will be less streamflow into the water catchments that provide water for Australia's capital cities, so we will need to think carefully about where our water comes from and how we use it.

"The projected decrease of soil moisture and runoff means that there's a greater likelihood of agricultural drought across Australia's farming areas. Such changes are already reducing broadacre farm productivity and profitability.

"We've already seen how drier and hotter conditions can lead to increased bushfire risk, with climate change partly attributable for the fires across Australia during the summer of 2019/2020.

"And rising sea levels could lead to saltwater inundation of culturally

significant sites and waterholes across northern Australia."

More information: IPCC Sixth Assessment Report: Impacts, Adaptation and Vulnerability: www.ipcc.ch/report/ar6/wg2/

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