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Our Changing Climate: Impacts on Illinois

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The 2021 Nobel Prize in Physics being awarded to two pioneers in modeling of the Earth's climate system highlights the importance of climate change to the future of humanity. In addition, the recently released Sixth Assessment Report (AR6) of the UN's Intergovernmental Panel on Climate Change (IPCC) further strengthens what other assessments of the science have already been telling us for several decades: Climate change is happening now and it is happening throughout the world. This has been the warmest decade on record, but surface temperature is just one of many indicators of our changing climate. I recently co-lead a special assessment of the impacts of climate change on the state of Illinois. Climate change is a major environmental challenge that is likely to affect many aspects of life in Illinois, ranging from human and environmental health to the economy. Illinois is already experiencing societal impacts from the changing climate and, as climate change progresses and temperatures continue to rise, these impacts are expected to increase over time. This report paints a stark picture of the changes in store for Illinois because of our changing climate, but it also depends on which pathway we follow in slowing down climate change. This presentation summarizes the changing climate in Illinois, its potential impacts on the people and ecosystems in Illinois, and how we can respond. I feel confident that we can slow climate change and reduce its magnitude, but it will take a concerted worldwide effort to greatly reduce the human-related emissions that are driving these changes. Taking action now to reduce emissions and to build resilience is critical for combatting climate change, and it can also lead to a more equitable and sustainable future.