As global temperatures continue to rise, scientists are warning the world to brace for heat waves, extreme storms, wildfires and other dire consequences. While chemists are actively searching for new ways to mitigate climate change, they are also developing technologies to allow people and ecosystems to not only survive, but thrive, in a warmer world, according to a special issue of Chemical & Engineering News (C&EN), the weekly newsmagazine of the American Chemical Society.

The challenges of adapting to climate change are many. Feeding the world's growing population is expected to become more difficult, as farmers battle prolonged droughts and heat waves, alternating with crop-damaging storms. Fragile ecosystems, like coral reefs, will be vulnerable to changing conditions such as warmer, acidified oceans. And cities around the world must update their infrastructure to prepare for extreme weather in the form of heat, fires and floods.

In a series of articles, C&EN describes how chemists will play a critical role in helping the world thrive in the face of climate change. In the area of agriculture, scientists are reengineering crops to increase yield and resist disease in varied soil and atmospheric conditions. Other researchers are working to preserve existing coral reefs while modifying corals' DNA to make the tiny creatures more resilient. Still other efforts focus on developing innovative solutions to help cities protect their infrastructure from heat and violent storms and safeguard their water security.

More information: cen.acs.org/environment/climat ... chemistry-help/98/i6

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