

Daily forecasts tell only a portion of our weather story. Weather patterns are affected by multiple meteorological factors, including climate change.

Human activity has been linked to the greater release of greenhouse gases (GHGs) into the atmosphere since the Industrial Revolution. These GHGs, in turn, have a significant impact on weather patterns, according to the U.S. Geological Survey of the U.S. Department of the Interior. GHGs act as a blanket around the earth, trapping heat radiation from the sun and increasing surface temperatures. GHGs alter climate by scattering and absorbing solar and infrared radiation. They may change the microphysical and chemical properties of clouds. Additionally, deforestation and other changes in land use have altered the amount of sunlight reflected back into space. The world's rising surface temperature may increase water evaporation and cause more droughts. As more moisture evaporates, it fuels Mindful of the health and wellbeing of creation in a time of disasters intensified by climate change, this ELCA Advocacy resource series invites reflection on being #PreparedToCare.

Do you have a personal experience or impression that connects?

What are strengths of your congregation in this area?

How might you make a difference in your community? Be part of the ELCA Advocacy network. Sign up for news and Action Alerts at impactful moments from elca.org/advocacy/signup.

more powerful storms. More heat in the atmosphere and warmer ocean surfaces can accelerate wind speeds in

"Christian concern for the environment is shaped by the Word of God spoken in creation, the Love of God hanging on a cross, the Breath of God daily renewing the face of the earth. We of the Evangelical Lutheran Church in America are deeply concerned about the environment, locally and globally, as members of this church and as members of society. Even as we join the political, economic, and scientific discussion, we know care for the earth to be a profoundly spiritual matter."

ELCA Social Statement: "Caring for Creation: Vision, Hope and Justice," 1993 tropical storms. Weather patterns become more extreme.

We see the effects of climate change all around us: severe heat waves, heavier precipitation, and greater incidence of hurricanes, floods, droughts, and wildfires. The permafrost is thawing, sea ice is melting, and rising sea levels are eroding our coastlines. These conditions destabilize the environment, contributing to migration, food insecurity, hunger and poverty, national security issues, ecosystem losses, and health problems.

# Faith reflections and policy decisions

A reflection on why Lutherans care for creation reads, "With the assurance of God's presence in all things and a force of love behind all things, we are freed to see the world as it is without seeking to romanticize it or be blind to the evil and tragedy in life. We also welcome all that we can learn about our world through our strong reception of science, with openness to ecological realities and biological evolution. Science is so fundamental to understanding the environmental crisis and so significant as part of our human efforts to address it. We do not fear the truth about

ourselves and our world. Indeed, it is part of God's relation to the world." ("Why Lutherans Care for Creation: Building on Our Foundations" at <u>elca.org/resources/advocacy#environment</u>)

In a statement for Earth Day 2018, the Rev. Elizabeth A. Eaton, presiding bishop of the ELCA, wrote, "An honest and credible look at the increasing environmental degradation and climate change names the neglect, carelessness and wrongs of industry, civil society and global governmental leadership. It also recognizes how human beings individually and collectively worsen the attacks on God's creation. As a church, we must confess our frequent lack of urgency in addressing environmental degradation and slow action to address a changing climate. We also must pledge to acknowledge the intersections of racial and environmental injustices and strive to involve the voices of those most affected in the process." (See <u>elca.org/News-and-Events/7922</u>)

### PRAYER FOR STEWARDSHIP OF NATURAL RESOURCES

"Almighty God, in giving us dominion over things on earth, you made us coworkers in your creation. Give us wisdom and reverence to use the resources of nature so that no one may suffer from our abuse of them, and that generations yet to come may continue to praise you for your bounty; through your Son, Jesus Christ our Lord. Amen."

Evangelical Lutheran Worship, page 80

# Vital support

Alert to the marginalized and vulnerable

Because the marginalized and vulnerable are most affected by environmental degradation, our failure to protect God's creation ultimately mirrors and deepens existing racial, gender and economic inequalities. Caring for creation means respecting environmental limits while pursuing economic growth that provides sufficient and sustainable lifestyles for all people.

Full funding urged

Climate finance includes financial support for adapting to and mitigating the effects of climate change, including capacity building, research and development, and wider efforts to shift the economy toward low-carbon, climate-resilient development. Several federal agencies sponsor programs that protect the environment. During the appropriations process, we seek full funding of such programs within the Environmental Protection Agency, Department of the Interior, Department of Energy, Department of Agriculture, and Department of State.

## **Selected Significant Climate Anomalies and Events in 2016**

#### ARCTIC SEA ICE EXTENT During its growth season, the Arctic had its smallest annual maximum extent for the second year in a row. During its melt season, the Arctic reached its 2<sup>rd</sup> smallest minimum extent on record (tied with 2007). EUROPE Europe experienced its 3<sup>rd</sup> warmest year, behind only 2014 (record warm) and 2015 (2<sup>rd</sup> warmest), making the past three years the three warmest in the 107-year continental record. The average winter (Dec 2015–Feb 2016) temperature was record high. A wildfire destroyed large parts of Fort McMurray (Alberta) in early May and became the costliest natural disaster Further reading TYPHOON LIONROCK in Canada's history. (Aug 16<sup>10</sup>-31<sup>10</sup>) Lionrock impacted northeastern areas of the Democratic People's Republic of Korea (DPRK), where rainfall of up to 320 mm in four days led to catastrophic flooding and 133 fatalities. "Transforming our Asia observed its 3<sup>rd</sup> warmest year on record, behind 2015 (record warmest) and 2007 (2<sup>rd</sup> warmest). Apr, Aug, and Sep were each record warm, while Oct and Nov were both cooler than their long-term warrange ALASKA 50 2016 was the warmest year for the state since records began in 1925. world: the 2030 Agenda NORTH AMERICA EAST ASIA for Sustainable 2016 was the warmest year for North America since continental records began in 1910, surpassing the previous record set in 1998. A cold wave in late Jan impacted parts of East Asia. In southern China, Guangzhou recorded its first snow since 1967 and Nanning its first since 1983. A low temperature of 3.1°C was Development," https:// **CONTIGUOUS UNITED STATES** 2016 was the 2<sup>nd</sup> warmest year on record for the contiguous U.S. Every state was warmer than average. 0 ATLANTIC HURRICANE SEASON Above-average activity. 140% of no 15 storms, 7 hurricanes. sustainabledevelopment al ACE ved at the Hong Kor vatory, the 6<sup>th</sup> lowes .un.org/post2015/ EASTERN NORTH PACIFIC HURRICANE SEASON Above-average activity. 144% of normal ACE. 21 storms, 11 hurricanes. tempe locatio **MIDDLE EAST** HURRICANE MATTHEW transformingourworld' $( \mathbf{0} )$ On Jul 21st rding to preliminar WESTERN PACIFIC OCEAN TYPHOON SEASON INDIA On May 19<sup>th</sup>, Phalodi, India reached a (Sep 28\*- Oct 9\*) Matthew was the first Category 5 hurricane in the North Atlantic since Felix in 2007. The storm majorly impacted Haiti, Cuba, the Bahamas, and parts of the southeastern U.S. More than 1,000 fatalities were reported and thousands of homes and buildings were destroyed. reports, a temperature of 54.0°C wa recorded at Mitribah, Kuwait. Upon verification, this will be the highest of 54.0°C wa ture of 51.0°C, becom Average activity. 26 storms, 13 typhoons highest temperature on record for the country. TROPICAL STORM DARBY Jul 22<sup>nd</sup>, Basra, Iraq, reached 53.9°C and Delhoran, Iran reached 53.0°C, Map graphic from (Jut 11\*-26\*\*) Tropical Storm Darby was the second tropical cyclone in the past three years to make landfall in Hawaii, and only the fifth landfalling cyclone there since records began in 1949. NORTH INDIAN OCEAN CYCLONE SEASON SOUTH WEST PACIFIC OCEAN CYCLONE SEASON Average activity. 11 storms, 6 cyclones. https:// Near-average activity. www.ncdc.noaa.gov/ SOUTH INDIAN OCEAN CYCLONE SEASON Below-average activity. 8 storms, 3 cyclones. sotc/global/201613 AFRICA Southern Africa experienced two consecutive poor rainy seasons, with rainfall well below average i both 2014-15 and 2015-16, leadi SOUTH AMERICA Large areas of record warmth, particularly in the north, and much-warmer-than average temperature resulted in the 2<sup>nd</sup> warmest year, behind only 2015, since continental records began in 1910. Jan, Feb, an Apr were each record warm. н AUSTRALIAN CYCLONE SEASON AUSTRALIA Australia observed its 4<sup>th</sup> warmest year in its 107-year national record. Tasmania was record warm. Nine of the past 10 years (excepting 2010) have been warmer than average and 7 of the 10 warmest years have occurred since 2005. Below-average activity. Lowest number of named storms since reliable records began in 1969. 7 storms, 3 cyclones. to serious drought and substantial agricultural losses. ANTARCTIC SEA ICE EXTENT During its growth season, the Antarctic had its 10<sup>th</sup> smallest annual maximum. During its melt season, the Arctic reaches its 9<sup>th</sup> smallest minimum extent on record (tied with 2007). 6

Please Note: Material provided in this map was compiled from NOAA's State of the Climate Rep

ncdc.noaa.gov/sote