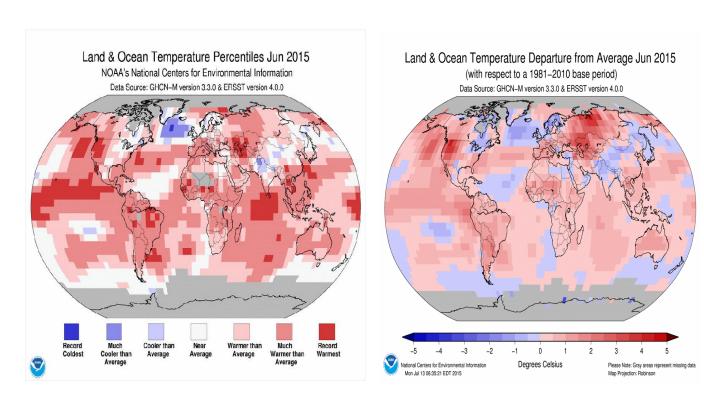
# 2015 Record breaking temperature anomalies

June 2015 global temperature was the highest in 136 (since 1880) years reaching an average of 0.88°C above the 20<sup>th</sup> century average. This is an increase of 0.12°C higher than June 2014. July 2014-june 2015 are the warmest months for 136 year period with warming increasing from January, February, March and April which was the third warmest. June is the warmest in this period (NOAA 2015).



Source NOAA 2015

### Land

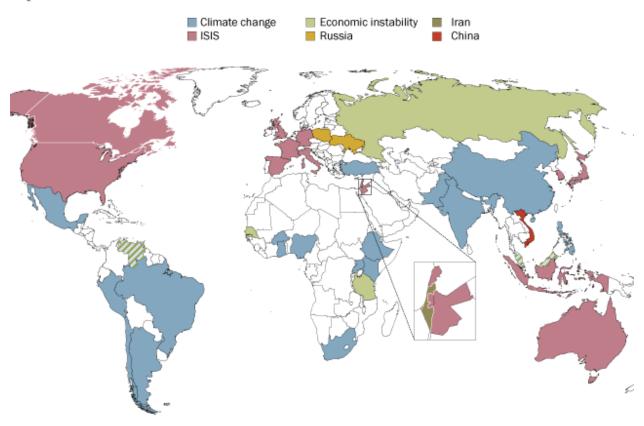
"Large regions of Earth's land surfaces were much warmer than average, according to the Land & Ocean Temperature Percentiles map above, with record warmth across the western United States, parts of northern South America, several regions in central to western Africa, central Asia around and to the east of the Caspian Sea, and parts of southeastern Asia. Western Greenland and some areas in India and China were cooler than average, and northern Pakistan was much cooler than average.." The report indicates most of the world's land areas experiencing higher than average warming, "that is falling within the top 10 percent of their historical temperature range for the January—June period,." Africa is one of the regions whose warming is higher than the global average; Eurasia, South America, western North America had similar experience. Australia continent experienced higher than global average as well. "The oceans were also much warmer than average across vast expanses, with much of the northeastern and equatorial Pacific, large parts of the western North Atlantic, and the Barents Sea notably record warm. Over land, only northeastern Canada was much cooler than average during the first half of 2015, as was the North Atlantic Ocean to the south of Greenland, with a region of observed record cold." (NOAA 2015).

### **Oceans**

'For the oceans, the June global sea surface temperature was  $0.74^{\circ}C$   $(1.33^{\circ}F)$  above the 20th century average of  $16.4^{\circ}C$   $(61.5^{\circ}F)$ , the highest for June on record, surpassing the previous record set last year by  $0.06^{\circ}C$   $(0.11^{\circ}F)$ . This also tied with September 2014 as the highest monthly departure from average for any month for the globally-averaged sea surface temperature. Nine of the ten highest monthly departures from average have occurred since May 2014.'(NOAA 2015)

# **Greatest Threats around the World**

Top concern



Note: In Malaysia and Venezuela, both climate change and economic instability are top concerns.

Source: PEW Research Center (2015)

19 countries of 40 surveyed nations rated climate change as a top threat to human security; largest concerned population is in Latin America where an average of 61% are concerned with climate change as a top threat. 59% in Sub-Sahara Africa have substantial concerns about climate change. The north countries do not perceive climate change as an imminent threat while South Nations perceive climate change as a serious threat.

# **Top Threats by Region**

Median very concerned about ...

	Global %	U.S.	Europe %	Middle East %		Latin America %	Africa %
	76	76	76	76	76	76	70
Global climate change	46	42	42	35	41	61	59
Global economic instability	42	51	40	33	35	54	50
The Islamic militant group							
in Iraq and Syria (ISIS)	41	68	70	54	45	33	38
Iran's nuclear program	31	62	42	29	29	33	29
Cyberattacks on gov'ts, banks or corporations	30	59	35	22	35	33	30
Tensions between Russia and its neighbors*	24	43	41	18	22	22	20
Territorial disputes between China and its neighbors**	18	30	17	14	31	21	22

<sup>\*</sup> Notasked in Russia.

Source: Spring 2015 Global Attitudes survey. Q13a-g.

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Global temperature changes are consistent with CO2 emissions which affect earth systems. Current flooding and drought experienced in Africa can be attributed to the anomalies cited by NOAA which indicate El Nino like effect will continue in regions near Equator.

<sup>\*\*</sup> Not asked in China.

## References

NOAA National Centers for Environmental Information, State of the Climate: Global Analysis for June 2015, published online July 2015, retrieved on July 22, 2015 from <a href="http://www.ncdc.noaa.gov/sotc/global/201506">http://www.ncdc.noaa.gov/sotc/global/201506</a>.

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