

MORE  CO₂

MEANS MORE

 DROUGHT

+  HEATWAVES

CONNECT THE DOTS

In 2010,
18 nations
set new
all-time
high tem-
perature
records.

As atmospheric CO₂ traps more and more heat from the sun, heat waves will get harsher, longer and more frequent. And since water evaporates faster at high temperatures, it means droughts will get harsher, longer and more frequent, too.



Pakistan broke the high temperature record for the entire Asian continent with an unbelievably hot 53.5°C (128°F) during the 2010 heatwave.³



THERE HAS BEEN AN INCREASE IN THE NUMBER OF HOT EXTREMES.

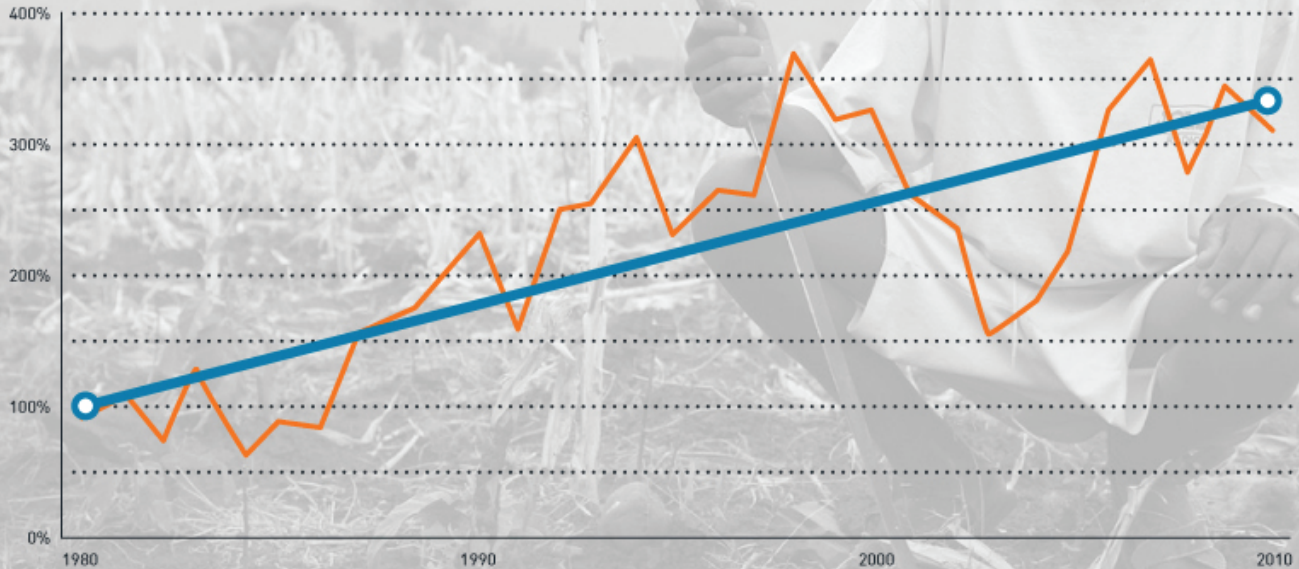
EAST AFRICA

In 2011, crippling drought gripped the Horn of Africa with two consecutive seasons of poor rainfall that contributed to one of the driest years since 1950-51.



Beyond the debate on climate change's role in the current crisis in East Africa, one thing is clear. If nothing is done, climate change will in the future make a bad situation worse.

NUMBER OF CLIMATOLOGICAL EVENTS
Extreme Temperature, Drought, Forest Fire with Relative Trend



EXAMPLES:

- Each new year sees far more new records for hot days than cold. Last summer, the U.S. had 11 times as many communities with record hot days as record cold days.²
- The Amazon just came through its second 'hundred-year drought in five years,'³ a record drought in Texas killed half a billion trees,⁴ and stream flows in the world's largest rivers are declining fast.⁵
- In the summer of 2010, Russia had the greatest heatwave in its history.⁶ The subsequent drought was so severe that the Kremlin stopped exporting grain to the rest of the world, causing the price of corn and wheat to rise by 85% overnight.⁷

WHAT'S IN STORE

Scientists at Stanford and the University of Washington calculate that each 1° increase in global average temperature will reduce grain yields by 10%,⁹ and "Mega-heatwaves" like the ones that struck Europe in 2003 and 2010 will become 5–10 times more likely over the next 40 years.¹⁰

- 1) thinkprogress.org/romm/2010/10/18/206876/noaa-2010-hottest-year-on-record-zambia-national-all-time-record/
- 2) thinkprogress.org/romm/2010/10/18/206876/noaa-2010-hottest-year-on-record-zambia-national-all-time-record/
- 3) nature.com/news/2010/10/1029/full/news.2010.571.html
- 4) reuters.com/article/2012/02/16/us-drought-trees-texas-idUSTRE81F02W20120216
- 5) www2.ucar.edu/atmosnews/news/854/water-levels-dropping-some-major-rivers-global-climate-changes
- 6) guardian.co.uk/environment/2012/feb/21/climate-change-russian-heatwave, columbia.edu/~jeh1/mailings/2012/20120105_PerceptionsAndDice.pdf
- 7) <http://www.time.com/time/world/article/0,8599,2008081,00.html>
- 8) <http://www.telegraph.co.uk/earth/environment/climatechange/8918605/Climate-change-could-push-up-food-prices.html>
- 9) <http://www.sciencemag.org/content/323/5911/240.short>
- 10) <http://www.guardian.co.uk/environment/2011/mar/17/deadly-heatwaves-europe> "Long-term effects of heat wave for Russia" <http://en.rian.ru/images/16027/39/160273983.jpg>

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