

Earth 2100 essay



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The scenarios in Earth 2100 are not a prediction of what will happen but rather a warning about what might happen. They are based on the work of some of the world's top scientists and experts, as well as peer-reviewed articles from publications around the world. These notes are just a glimpse of the wide and diverse sources used to develop this program. It is important to add that not all of the scientists we interviewed would agree with each specific scenario we present, or with our exact time frame.

For example, some experts think that the more catastrophic events we depict would be unlikely to happen before the middle of the 22nd century, while others, like Jared Diamond, think that they could happen much sooner. Though there is some disagreement about the specifics, there is widespread agreement among the 50-plus experts we spoke to in the course of our 18 months working on this show that if we do not change course in the near future, the collapse of our civilization is a real possibility. Handout Earth 2100 Series

When an insurance company, or an institution like the Pentagon, prepares for future threats, they always develop a worst case scenario — a sober assessment, based on expert research, of the most serious possible risks. To avoid the worst, they believe, you must plan for it. This program was developed to show the worst-case scenario for human civilization. Again, we are not saying that these events will happen — rather, that if we fail to seriously address the complex problems of climate change, resource depletion and overpopulation, they are much more likely to happen.

Lucy is born June 2, 2009 (changed to January 1, 2009 in subsequent airings), in the suburbs of Miami and is still alive in the year 2100. In 2015, she moves into an apartment in Miami and a few months later a powerful hurricane named Linda hits and levels much of Miami, killing thousands of people. She and her parents move to San Diego. She becomes an EMT and meets her husband, Josh, an engineer, during a protest against high water prices of California desalinated seawater in 2030 (Las Vegas had run dry).

In 2050, they and their 19-year-old daughter Molly move to New York City by car, passing desperate Texans begging for rides north. One pulls a gun on Molly, but fortunately, others in the car/truck convoy point automatic weapons on the desperate man, who backs down. While the others in the convoy make it to Canada, New York City is a marvel of clean power, clean transit, and community gardening. Josh sets to work building a flood barrier to hold back the ocean, but the CO₂ warming unleashes trapped methane in the Arctic, which causes even faster, non-linear warming.

An effort to use sulfur dioxide as a last resort to cool the planet is called off when it is found to destroy the ozone layer. Lucy finds and helps quarantine and neutralize a strange new disease, and Molly moves upstate to an agricultural community. During a storm at high tide in 2075, Josh is killed trying to fix a stuck gate, and New York City is flooded. Lucy refuses Molly's offer to live with her, her husband and son. Starving people among the rotting flood damage set the stage for the return of the disease Lucy saw, now called " Caspian Fever. Caspian Fever soon becomes a pandemic and kills so many people on Earth that population growth starts shrinking, and eventually it dawns on Lucy and every American that there is no Federal

response, no National Guard, no soldiers to keep order. Democracy and civilization at the national level have died in America. Lucy leaves the city with some friends and a dog in 2081, and eventually finds her daughter, now a widow like herself, and her grandson. Initially there is no communication with the world, until someone set up a two-way radio.

In 2100, Lucy ponders what wisdom to pass along to her grandson, now denied the education she took for granted, as she is the oldest person in the world. By 2015, there are expected to be hopeful signs. Experts predict alternative energy solutions that are currently in their infancy will gain momentum. Windmills may sprout up everywhere. Off the coast of Scotland, a sprawling wave farm will harvest renewable energy from the ocean. Vatican City will meet all of its energy needs with solar power. And the U. S. will produce cleaner, more fuel efficient vehicles in accordance with newly unveiled emissions guidelines. But will it be enough? In 2015, global demand for fossil fuels could be massive and growing, but experts say oil will be harder to find and far more expensive to consume. “ We have no new source of energy on the horizon that’s currently capable of being developed on a large enough scale to replace the supply of oil in any near- term framework,” says Michael Klare, professor of peace and world security studies at Hampshire College.

If the cost of gasoline skyrockets, few may be able to afford to maintain the lifestyles to which we’ve grown accustomed. There may be a mass exodus from the suburbs, as driving gas-fueled cars becomes nearly impossible economically. But will that convince us to change our ways? “ Until we have a crisis of some kind, I don’t think we’re going to be motivated to make the

really deep changes in the way we use energy, the technologies we use, the density of our cities, our travel patterns,” says Thomas Homer-Dixon, a political science professor and author of “ The Upside of Down. The imagined crises in Lucy’s futuristic world come in the forms of earthshaking hurricanes spawned by over-reliance on climate-damaging coal and other nonrenewable resources. What if climate change in our world is actually much closer than we think? Many experts say we have to start seriously reducing greenhouse gas emissions by 2015, or we may pass a point of no return.

If we continue on the business as usual trajectory, there will be a tipping point that we cannot avert,” says John P. Holdren, science advisor to President Obama. We will indeed drive the car over the cliff. ” Scientists predict that by 2020, global catastrophes may well begin to accelerate. The human population is expected to explode and animal species may be dying off at a rapid rate. As the world becomes more chaotic, the costs of mending it would grow more and more daunting.

By 2030, gradually rising temperatures may have shifted rainfall patterns around the globe, and many experts warn much of the world may face serious shortages of our most basic need — water. By 2030, two-thirds of the world’s population will be under water stress,” says Janine Benyus, science writer and founder of the Biomimicry Institute. Some cities will have the forethought to plan ahead. Starting in 2009, San Diego began building huge desalination plants to turn ocean water into an abundance of fresh water. But in the middle of the country, people may be running out — and there may well not be funds to transport it from the coast. If and when a place like Tucson, Ariz. , runs dry, people will panic. “ Something that will catch

people’s attention is the first rich city that just runs out of water,” says Homer-Dixon.

Americans may well meet these challenges with resourcefulness and work hard to keep the threats at bay. But even as things stabilize on the home front, experts predict hundreds of thousands of environmental refugees may begin streaming through Europe, fleeing droughts and famines. Millions of Latin Americans could align on the U. S. border seeking entry, and some could encounter violent resistance. “ I can’t imagine the horrors that will take place on the border as millions of refugees try to get into the United States,” says Klare.