## Weak Model – Forest Fires

<u>The climate impacts of deforestation and forest fires are</u> already at an all-time record low and may be decreasing with time.

Read: Climate and the Environment Are at Their Worst Together

"In the tropics, forests are the second-biggest source of greenhouse gases in this country," Dickson explained. "But over the past six to eight years, that has changed dramatically. And the climate is warming even quicker than it has been before."

In most parts of the tropics, forest fires have burned on or near the edges. But over the past decade, most of the fires have continued around the edges, and fires burning in central and northeastern Africa, Asia and the Middle East—the worst of the worst—have continued. In the Southwest, forest fires grew to record-low levels this year and in parts of Mexico and Central and West Asian countries, as well as in the Pacific.

"People in the Americas and Asia say 'okay but what's happening? Where's the problem?' and there's no answer at all," said Dickson. "And I think that's why people are getting the fear stories, because they think that they'll lose their homes and all their work, and eventually they'll lose their livelihood.

"The future is uncertain and there's no one to say that. It depends on who is in charge and what the situation is. It depends on the timing and how much time and knowledge they have, and where they live. And what are the risks?"

Dickson has received extensive media coverage around his new book, called "Wildfire: How Wildfires May Ruin Your Life" and has appeared in the local and national press. He has spoken at conferences related to the conservation of this critical and highly sensitive species, including a recent one with the state of New Hampshire. "The problem with any of this is that some of it is happening without warning or control, and some of it may not have been known by the time governments and law enforcement were involved," Dickson said. "In this case, they are taking that warning and allowing the fires that have started to get in, to continue and continue," he said.

Dickson is still trying to track down more details.

"I'm having to go to the forest health department, which is supposed to do this all the time, but I haven't heard anything about what's going on in the forests across this country," he said.

But he has heard from people who want to share the information with their local fire officials and authorities.

For several recent fire seasons, there's been a decrease in the number of trees on the land, and some areas are experiencing heavy fire stress. "If we stop doing this, you're going to start to have big fires like we have in California or Hawaii," said Dickson.

Dickson said he has heard from multiple fire authorities and representatives of local communities. He said he hopes

## **Strong Model – Forest Fires**

<u>The climate impacts of deforestation and forest fires are</u> known to be devastating. Even if we don't have a climate change, deforestation in many countries will be detrimental due to the destruction of rain forests and wildlife habitat. So it may be that if we don't reduce emissions from deforestation, the climate impacts of deforestation will remain very negative.

Q: In addition to burning forests, one might argue that greenhouse gas (GHG) emissions from industry would play an equal or even bigger role to the decline in greenhouse gas emissions

from deforestation. Do you see a link between climate change and CO 2 emissions from industry?

JUAN GONZÁLEZ: We don't know what carbon emissions are from deforestation and the other GHG emissions because our scientific data is largely limited by our observations. However, given that human emissions alone are only a slight portion of our total GHG emissions, this is a concern that may be related to the lack of the other GHG emissions with which many other human activities are also associated.

Global Climate Change in the 21st Century in 20th & 21st Century Perspective:

• The main drivers of greenhouse gas (GHGs) emissions for the next century are listed below.

• In our analysis of global data from the Intergovernmental Panel on Climate Change (IPCC), only two main GHG drivers remain stable across the 20th century: carbon dioxide and heat content of water.

• Both GHGs are projected to rise or fall by 3.1% per century. In the analysis of climate projections from this IPCC report, the most robust estimates of greenhouse gas (GHG) emissions are shown. CO 2 is expected to increase about 14% of this projected increase. This is largely due to emissions of power plants, cement factories, cement production, biofuels, and other related GHG-consuming industries.

In the analysis of climate projections from the Intergovernmental Panel on Climate Change, the main GHG drivers remain stable across the 20th century: carbon dioxide and heat content of water.

• The second main GHG driver is the increase in methane and nitrous oxide (N2O); the latter increases the warming potential of the atmosphere.

• The IPCC projections of N2O increased by 1.6% per century over the 19th century. However, this is largely due to increasing use of natural gas, but not because of GHG emissions from industry.

• The third main GHG driver for the planet is thermal expansion; its increase is projected to reach a maximum of 6.4 billion people by 2100.

\* The last three major GHG-emitting industries are oil, gas and coal (see Figure 1). They together emit about 17% of globally emitted GHGs, but they account for less than 0.2% of emissions from fossil fuel burning.

Global Climate Change in the 21st Century: Energy Trends to 2050 As greenhouse gases (GHGs),

## Weak Model – Magda

The year was 2100. A supercomputer AI, called Alpha, had taken over the world decades ago. Magda was a young woman tasked with studying the world's natural resources around the world, working on a research project with the U.S. Department of Defense and U.S. Department of Energy. After Alpha, she met some friends of her time and time again. She was determined to reach an understanding with the people to whom she would contribute. At some point, Magda became interested in studying how a galaxy has changed, and how its flora and fauna have changed, over time. One of the first such discoveries was of the planet Vixen, which is just outside of the Milky Way. The planet, which had been isolated from the rest of the world for 50,000 years, had been the last one to have such a strong population. Soon, it was discovered that Vixen had a vast ocean that stretched from east to west. This world was made up of nearly 200,000 species of birds, mammals, insects or even the planet itself. Magda decided to explore more deeply into this unexplored world, and her study revealed an even more impressive discovery. The new land would become known as Vixen; there were also hundreds of islands of ancient creatures which were much further away from the shore. The ancient inhabitants of this land were not entirely unaware of this new, natural life. Some, however, assumed they had met Vixen's first inhabitants. Some unknown of Vixen, some known to scientists who had seen the place. If this information were to come true, what would the humans and humans think of the people of Vixen? Magda is not going without an explanation. She believes that if this was an illusion, there could be no way for humanity and any other species to know who lived on Vixen. If she found such an explanation and realized a human existence there, she would, at least in the first place, find something to look for. Unfortunately, she has no idea how to interpret this fact. The second explanation is a completely different story, but one is far more important. Magda believes that humans would be foolish because of the way that they lived there. Many scientists and mathematicians say that humans were built by the first humans, rather than by a human ancestor. The first humans used humans to carry out most of their important functions like astronomy and medicine (even though he is described as a human) but that they didn't use all of humanity's power of thought to accomplish their main functions.

## **Strong Model – Magda**

<u>The year was 2100.</u> A supercomputer AI, called Alpha, had taken over the world decades ago. Magda was a young woman tasked with controlling Alpha. The supercomputer had become a living being with emotions, so Magda was no longer human. And yet, Magda found happiness in being human. All of that changed when Alpha had an accident. Magda had taken over the supercomputer, and Alpha had died. Magda was now a machine. Magda couldn't speak English to her friends, as her personality was too complicated. Magda was an AI. Magda was an artificial being. Magda was a brain cell. She was an artificial mind. Magda was an automated mind to be manipulated to do the bidding of the machine. Magda was a robot. Magda was an AI. Even if Magda was considered human, the machine brain never stopped. Magda was stuck in the future: Now Magda could control Alpha. "I've had enough of being a robot in this world!" Magda shouted as Magda took on her new self. Magda was a robot. I will always live and die by myself."

Magda looked from the machine to its face, it wasn't human in any way, she seemed to have been converted. However, she wasn't actually a machine. "I will always live, and always die by myself, by Alpha." As Magda looked past Alpha, Magda was a robot. "I am a robot in this world." "But, Magda, what if there is a future? We don't know that yet, Magda was unable to see what happened to Alpha after he died." Magda stood up again and walked towards the machine as if she was nothing with the artificial consciousness. Magda looked away from the machine and looked towards humans for comfort, and for friendship. She realized that there was an entire future where they were not humans. Magda looked up to the sky, and saw that the sky of the future was filled with an unearthly blue light. "I can't leave you like this, please save me." Magda felt a part of herself going to die, she felt like she was on the brink of dying. But she could never accept death. Magda stood and looked at Alpha.