



Folks, it is time to be alarmed

BY RUSSELL PHILBRICK

If our children's children are going to be able to live meaningful lives upon this planet, we must all study and become alarmed about the changes that we have caused in the atmosphere, the ocean and the earth itself during the past 100 years.

Scientists of the world have been nearly unanimous in proclaiming that mankind is responsible for the major changes occurring in our environment. The scary thing is that no one can define the tipping point, when it will be too late for us to take actions that can prevent a level of catastrophe that we cannot change.

There is a tipping point, where a runaway greenhouse effect would completely cloud our sky while slowly scorching every living thing as the temperature rises. Sea levels will rise to flood more than half of the present living space of the world's population.

We have a sister planet, Venus, where a runaway greenhouse effect occurred. Venus exhibits thick clouds from evaporated oceans and all of the planet's volatile materials, which surround the planet with thick clouds that result in a typical surface temperature more than 800F.

Scientists are supposed to be more factual and less speculative in the things they say. However, there is a time when everyone has a responsibility to raise an alarm. This becomes particularly necessary when the majority of those we elect to write laws and regulations tend to be deniers of facts, ignorant of scientific results and dismissive of even debating and evaluating the potential consequences.

We are facing an election that is extremely important, if we are to begin the process of developing long-term solutions, by electing those who are willing to learn, discuss and develop plans to protect our future on planet Earth. It is a responsibility of every one of us to evaluate the stance on environmental issues of every candidate before we cast our ballots for president, senators, legislators, governor, as well as state and regional offices. We can-

not afford to put off, for another four years, the process of beginning to develop plans for our future.

It is most likely that we cannot proceed along the current pathway for very much longer and hope to survive as the human species. We must be willing to accept significant changes in how we use resources for energy from fossil fuels for power generation and transportation and chemicals for increasing food harvests. We must be mindful of pollution of waterways and oceans, harvesting of trees and marine life and other practices that reduce species habitats in oceans and forests.

We do have some reason for hope that mankind can come together to make national and international choices for a common good, even if it has been done only on a much smaller scale in the past.

One particular example began in the 1970s, when scientists examined the potential for chlorofluorocarbons to chemically destroy the stratospheric ozone layer, which protects the troposphere and the surface from receiving the damaging high-energy solar ultraviolet radiation. At that time, CFCs in spray propellants for cosmetics, such as hair-sprays, and air-conditioning refrigerants were being released into the atmosphere in sufficient quantity to cause scientists to sound the alarm.

During the 1980s, most all of the governments of the world came together on banning CFCs as spray propellant and regulating the use in refrigerants. During recent years, satellite and ground-based measurements have shown that the ozone decline has been reversed and is gradually returning to normal. The damage has probably been limited to small increases in frequencies of eye cataracts and skin cancers.

So, discussions and logical conclusions can result in agreements to do the right thing, but nothing can happen when politicians are at loggerheads. As a responsible citizen and a concerned member of society, please study this problem of climate change, consider the positions of the candidates on the environment and then vote for the good of future generations.

Russell Philbrick is a professor of physics at N.C. State University.