



CALIFORNIA FORUM

Three steps we need to take, starting this Earth Day, to avoid a climate catastrophe

BY VEERABHADRAN RAMANATHAN, MARIA NEIRA AND MARCELO SANCHEZ SORONDO
Special to The Sacramento Bee

April 19, 2018 12:00 PM

Updated April 19, 2018 04:09 PM

A recent report by 30 leading scientists warned of “existential” threats to humanity posed by climate change.

As coauthors of that report, we did not choose such a term lightly or with a melodramatic intent to scare people into action. It was a simple statement of scientific opinion based on more than 35 years of data: There is a risk that society could experience catastrophic extreme weather and climate events much sooner than we had anticipated, in fact, within decades.

THERE IS A SET OF ACTIONS SOCIETY CAN PURSUE THAT CAN PROVIDE A SAFE LANDING, USING JURISDICTIONS LIKE CALIFORNIA AS LIVING LABORATORY.

The risks include exposing billions of people to lethal heat waves, vector-borne diseases and mental stress well beyond the capacity of our social and health-care infrastructure. The new science of health impacts suggests another twist.

Help us deliver journalism that makes a difference in our community.

Our journalism takes a lot of time, effort, and hard work to produce. If you read and enjoy our journalism, please consider subscribing today.

ADVERTISING

[inRead](#) invented by Teads

[SUBSCRIBE TODAY](#)

It has been generally assumed climate change will impact mainly the poor and the elderly. Now it seems everyone including the rich and the young will be affected. The 2017 fires that leveled affluent neighborhoods in Sonoma County were but one taste of potentially routine weather from whose fury no one is guaranteed escape.

We calculated the risk of catastrophe at 1-in-20. We asked then, would you board a plane that you know to have a 1-in-20 chance of crashing?

But for Earth Day, we have a hopeful message and solutions to make that question moot. There is a set of actions society can pursue that can provide a safe landing, using jurisdictions like California as living laboratory.

The ten campuses of the University of California under the umbrella of its carbon neutrality initiative have already developed solutions covering societal transformation, governance, market incentives, technological measures and ecosystem management to bring down emissions of climate warming pollutants to zero.

We still have about 15 years to deploy and scale up all of the solutions to the national and global level. The upscaling is essential. Without it, Californians will find that their heroic actions will have had very little impact in slowing down California's climate change. The bulk of the extreme climate events the state experiences are due to emissions from elsewhere.

But what is concentrated here is ingenuity, political will, and people with the means to turn ideas into reality. Gov. Jerry Brown has already formed a global collaboration by signing agreements with 200 cities, states and nations from around the world. We need to strengthen this coalition through joint demonstration projects of climate solutions in the field and scale the good ones through commercialization.

The needed public support can be garnered through an alliance among religions, health care providers, scientists and policymakers. Those who have spoken with authority on the moral, social and cultural implications of climate change – Pope Francis, the Rev. Leith Anderson, who is head of the American Evangelical Association and leaders of Judaism, Islam and Hinduism among them – are essential co-leaders of the team.

Following the report on existential threats, we recently organized a climate change meeting at the Vatican that focused mainly on human health. We declared that “with unchecked climate change and air pollution, the very fabric of life on Earth, including that of humans, is at grave risk.”

A diverse authorship including the late Stephen Hawking, Gov. Brown, American evangelical leaders, mayors, Nobel laureates, and other thought leaders signed the declaration. This convergence around health effects offers a new hope for getting massive

public support for climate actions.

We can tap into the spirit of localism that drives cities around the nation to rise above partisan politics to problem-solve for the civic good. San Diego is a great living laboratory where a Republican mayor pursues ambitious climate actions.

Ultimately the safe landing requires three technical steps: converting all our end uses to electricity and generate that electricity using solar, wind, hydro, geothermal and renewable biofuels; drastically reducing emissions of super pollutants such as methane and soot for which the needed technologies are mostly available; and removing about half of the carbon dioxide pollution that has already accumulated in the air.

It's all possible. What we need to do has already been prescribed by Goethe: Knowing is not enough; we must apply. Willing is not enough; we must do.

VEERABHADRAN RAMANATHAN IS A CLIMATE AND ATMOSPHERIC SCIENTIST AT UC SAN DIEGO. MARIA NEIRA IS DIRECTOR OF CLIMATE AND HEALTH AT THE WORLD HEALTH ORGANIZATION IN GENEVA. MSGR. MARCELO SANCHEZ SORONDO IS CHANCELLOR OF THE PONTIFICAL ACADEMY OF SCIENCES IN VATICAN CITY. REACH THEM AT VRAMANATHAN@UCSD.EDU, NEIRAM@WHO.INT AND PAS@PAS.VA.

 **COMMENTS** ▾

SPONSORED CONTENT

Homeowners Born Before 1985 Are Getting a Huge Reward

By MorningFinance



SPONSORED CONTENT

Homeowners Born Before 1985 Are Getting a Huge Reward

By MorningFinance

SUBSCRIPTIONS

[Start a Subscription](#)

[Customer Service](#)

[eEdition](#)

[Vacation Hold](#)

[Pay Your Bill](#)

[Rewards](#)

SITE INFORMATION

[About Us](#)

[Contact Us](#)

[Newsletters](#)

[News in Education](#)

[Photo Store](#)

SOCIAL, MOBILE & MORE

[Text News Alerts](#)

[Mobile & Apps](#)

[Facebook](#)

[Twitter](#)

[YouTube](#)

ADVERTISING

[Place a Classified Ad](#)

[Place a Legal Notice](#)

[Place a Digital Ad](#)

[Place a Newspaper Ad](#)

[Shopping](#)

MORE

[Copyright](#)

[Commenting Policy](#)

[Privacy Policy](#)

[Terms of Service](#)